
PLANNING COMMISSIONERS

BRIAN LOWELL
Commissioner

JEFFREY BARNES
Vice-Chair

RAY L. BAKER
Commissioner



JEFFREY SIMS
Commissioner

VACANT
Commissioner

PATRICIA KORZEC
Commissioner

VACANT
Commissioner

PLANNING COMMISSION

Regular Meeting

Agenda

Thursday, April 27, 2017 at 7:00 PM
City Hall Council Chamber – 14177 Frederick Street

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA

Approval of Agenda

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and all will be enacted by one roll call vote. There will be no discussion of these items unless Members of the Planning Commission request specific items be removed from the Consent Calendar for separate action.

APPROVAL OF MINUTES

Planning Commission - Regular Meeting - Mar 23, 2017 7:00 PM

Approved as submitted.

PUBLIC COMMENTS PROCEDURE

Any person wishing to address the Commission on any matter, either under the Public Comments section of the Agenda or scheduled items or public hearings, must fill out a "Request to Speak" form available at the door. The completed form must be submitted to the Secretary prior to the Agenda item being called by the Chairperson. In speaking to the Commission, member of the public may be limited to three minutes per person, except for the applicant for entitlement. The Commission may establish an overall time limit for comments on a particular Agenda item. Members of the public must direct their questions to

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 72 hours before the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

the Chairperson of the Commission and not to other members of the Commission, the applicant, the Staff, or the audience.

NON-PUBLIC HEARING ITEMS

1. Selection of Chairperson and Vice-Chairperson (Report of: Community Development)

RECOMMEND THAT THE COMMISSION:

1. Accept Nominations for and elect a New Chairperson
2. Accepts Nomination for and elect a New Vice-Chairperson

PUBLIC HEARING ITEMS

2. Case: PEN16-0161

Applicant: Yaolong Chen

Owner: Food Grill INV

Representative: Yaolong Chen

Location: 14920 Perris Blvd

Case Planner: Sergio Gutierrez

Council District: 3

Proposal: Plot Plan for an exterior and interior remodel and addition of 791 square feet to an existing building at 14920 Perris Boulevard for a total of 24,902 square feet to accommodate 15 new tenant spaces within an existing shopping center

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-21, and thereby:

1. **CERTIFY** that this item is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 for Existing Facilities; and

2. **APPROVE** PEN16-0161 Plot Plan subject to the attached Conditions of Approval included as Exhibit A.

3. Case: PEN16-0100 (PA16-0075) – Plot Plan
PEN16-0101 (P16-114) – Variance

Applicant: Core 5 Industrial Partners

Owner: Prologis Development Services

Representative: EPD Solutions

Location: Near the southwest corner of Brodiaea Avenue and Heacock Street

Case Planner: Jeff Bradshaw

Council District: 1

Proposal: Brodiaea Business Center project - PEN16-0100 (PA16-0075) - Plot Plan to develop a 99,978 square foot industrial building on a 6.71 acre parcel located within a Business Park (BP) zoning district near the southwest corner of Heacock Street and Brodiaea Avenue and Variance application PEN16-0101 (P16-114) to allow for a larger building than the BP zone permits due to unique site constraints that include a triangular shaped parcel, an easement for the California Aqueduct and a segment of storm drain channel.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

1. **APPROVE** Resolution No. 2017-23 and:

- **CERTIFY** an Addendum to a previously adopted Negative Declaration for Plot Plan PEN16-0100, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
- **APPROVE** Plot Plan PEN16-0100 based on the findings contained in this resolution, and subject to the attached conditions of approval included as Exhibit A.

2. **APPROVE** Resolution No. 2017-24 and:

- **RECOGNIZE** that Variance application PEN16-0101 has been included in the project description of the Addendum to a previously adopted Negative Declaration and has therefore been fully analyzed pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
- **APPROVE** Variance application PEN16-0101 based on the findings contained in this resolution.

4. Case: PEN16-0042 (PA16-0026)

Applicant: Naji Doumit

Owner: Elie Abinader, John Klabb and Naji Doumit

Representative: Naji Doumit

Location: South side of Mountain Ranch Road at Northshore Drive, northerly of Ironwood Avenue
APN: 474-250-003

Case Planner: Jeff Bradshaw

Council District: 2

Proposal: Zone Change - The applicant is seeking approval of a Zone Change from R1 to R2 for a 10 acre site along the south side of Mountain Ranch Road at Northshore Drive, making the zoning consistent with the project site's Residential 2 General Plan land use designation

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

1. **APPROVE** Resolution No. 2017-2 and thereby **RECOMMEND** that the City Council:
 - **ADOPT** a Negative Declaration for Zone Change application PEN16-0042, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
 - **APPROVE** Zone Change application PEN16-0042 based on the findings contained in this resolution, and as shown on the attachment included as Exhibit A.

OTHER COMMISSION BUSINESS

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

ADJOURNMENT

Next Meeting: Planning Commission Regular Meeting, March 23, 2017 at 7:00 P.M., City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

1 CITY OF MORENO VALLEY PLANNING COMMISSION
2 REGULAR MEETING
3 CITY HALL COUNCIL CHAMBER – 14177 FREDERICK STREET
4

5 Thursday, March 23, 2017 at 7:00 PM

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8 CALL TO ORDER
9

10
11 CHAIR LOWELL – Good evening ladies and gentlemen. I would like to call to
12 order the Planning Commission Meeting, the Regular Meeting of the Planning
13 Commission. Today is Thursday, March 23, 2017. It is 7:02 PM. May we have
14 roll call please?
15

16
17 ROLL CALL
18

19 Commissioners Present:

20 Commissioner Ramirez
21 Commissioner Korzec
22 Commissioner Baker
23 Commissioner Sims
24 Vice Chair Barnes
25 Chair Lowell
26 Alternate Commissioner Nickel
27

28
29 Staff Present:

30 Rick Sandzimier, Planning Official
31 Paul Early, Assistant City Attorney
32 Darisa Vargas, Senior Administrative Assistant
33 Julia Descoteaux, Associate Planner
34

35
36 Speakers:

37 Rafael Brugueras
38
39

40 PLEDGE OF ALLEGIANCE
41

42
43 CHAIR LOWELL – Could you all join me in the Pledge of Allegiance? Please
44 stand and face the flag.

1
2
3 **APPROVAL OF THE AGENDA**

4
5 Approval of Agenda
6
7

8 **CHAIR LOWELL** – Thank you very much. Please be seated. Would somebody
9 like to make a motion to approve tonight’s Agenda?

10
11 **COMMISSIONER BAKER** – I so move.

12
13 **CHAIR LOWELL** – We have a motion. Do we have a second?

14
15 **COMMISSIONER NICKEL** – Second.

16
17 **CHAIR LOWELL** – All in favor say aye.

18
19 **COMMISSIONER KORZEC** – Aye.

20
21 **COMMISSIONER BAKER** – Aye.

22
23 **COMMISSIONER RAMIREZ** – Aye.

24
25 **COMMISSIONER SIMS** – Aye.

26
27 **COMMISSIONER NICKEL** – Aye.

28
29 **CHAIR LOWELL** – Aye.

30
31 **VICE CHAIR BARNES** – Aye.

32
33 **CHAIR LOWELL** – All opposed say nay. The Agenda is passed 7-0.

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35
36 Opposed – 0

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38
39 **Motion carries 7 – 0**

40
41
42 **CONSENT CALENDAR**

43
44 *All matters listed under Consent Calendar are considered to be routine and all*
45 *will be enacted by one rollcall vote. There will be no discussion of these items*

1 unless Members of the Planning Commission request specific items be removed
2 from the Consent Calendar for separate action.

3
4
5 **APPROVAL OF MINUTES**

6
7 Planning Commission - Regular Meeting - February 9, 2017 at 7:00 PM

8
9 Planning Commission - Regular Meeting - February 23, 2017 at 7:00 PM

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12 **CHAIR LOWELL** – That moves us onto the Consent Calendar, which we have
13 approval of Minutes from the Planning Commission. We have two Minutes to
14 approve, Planning Commission Regular Meeting February 9, 2017, and Planning
15 Commission Regular Meeting February 23, 2017. Do we have any questions,
16 comments, or corrections? No? Then, I would like to ask for a motion to
17 approve the Minutes as presented.

18
19 **COMMISSIONER NICKEL** – I'll move to approve both Minutes.

20
21 **CHAIR LOWELL** – Do we have a second?

22
23 **COMMISSIONER BAKER** – I'll second.

24
25 **CHAIR LOWELL** – All in favor say aye.

26
27 **COMMISSIONER KORZEC** – Aye.

28
29 **COMMISSIONER BAKER** – Aye.

30
31 **COMMISSIONER RAMIREZ** – Aye.

32
33 **COMMISSIONER SIMS** – Aye.

34
35 **COMMISSIONER NICKEL** – Aye.

36
37 **CHAIR LOWELL** – Aye.

38
39 **VICE CHAIR BARNES** – Aye.

40
41 **CHAIR LOWELL** – All opposed say nay. The motion passes 7-0. The Minutes
42 are approved.

43
44
45 Opposed – 0
46

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2 **Motion carries 7 – 0**

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5 **PUBLIC COMMENTS PROCEDURE**

6
7 *Any person wishing to address the Commission on any matter, either under*
8 *Public Comments section of the Agenda or scheduled items or public hearings,*
9 *must fill out a “Request to Speak” form available at the door. The completed*
10 *form must be submitted to the Secretary prior to the Agenda item being called by*
11 *the Chairperson. In speaking to the Commission, member of the public may be*
12 *limited to three minutes per person, except for the applicant for entitlement. The*
13 *Commission may establish an overall time limit for comments on a particular*
14 *Agenda item. Members of the public must direct their questions to the*
15 *Chairperson of the Commission and not to other members of the Commission,*
16 *the applicant, the Staff, or the audience. Additionally, there is an ADA note.*
17 *Upon request, this Agenda will be made available in appropriate alternative*
18 *formats to persons with disabilities in compliance with the Americans with*
19 *Disabilities Act of 1990. Any person with a disability who requires a modification*
20 *or accommodation in order to participate in a meeting should direct their request*
21 *to Guy Pagan, our ADA Coordinator, at (951) 413-3120 at least 72 hours prior to*
22 *the meeting. The 72-hour notification will enable the City to make reasonable*
23 *arrangements to ensure accessibility to this meeting.*

24
25
26 **CHAIR LOWELL** – That moves us onto the Public Comments for tonight. Do we
27 have anybody wishing to speak on something not on the Agenda? Do we have
28 any Speaker Slips Ms. Vargas?

29
30 **SENIOR ADMINISTRATIVE ASSISTANT DARISA VARGAS** – I have Rafael
31 Brugueras for Non-Public Hearing.

32
33 **CHAIR LOWELL** – Come on up Mr. Brugueras. The microphone is yours.

34
35
36 **NON-PUBLIC HEARING ITEMS**

37
38 **None**

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40
41 **SPEAKER RAFAEL BRUGUERAS** – Good evening Chair, Commissioners,
42 Staff, Residents, and Guests: You know, when I come here, I am at peace
43 because one thing that I’m sure that each one of you know that, when I come
44 here, I support all projects. The newspaper wrote an article that I was affiliated
45 with Highland Fairview, and that is not true. I do like them, and I got to meet
46 some of the supporters, but I am not affiliated with them. He is a developer, and

1 just like every developer that comes here, I say hello. The Staff puts out the
2 Agenda. I go get my boots wet, dirty. I read everything. I take pictures, and I
3 come back and I share with you what I saw. That's what I do. I have no
4 personal agenda for nobody. That's the beauty of it. I owe nobody no money,
5 nothing, nothing. I don't even take water from anybody. I bring my own water,
6 so no one can say I took something from someone. I love coming here. Many of
7 you know the truth. That is a good thing. I fight for everyone, and I will continue
8 to do that. I want to share the document that George Hague talked about on
9 February 9, 2017. See this is proof. This is what made me go out and do what I
10 am doing even more, and this is what he told you. "This City does not do the
11 best job in preparing the Planning Commissioners." I don't believe that. I think
12 the City does a great job, and you do a great job also. Okay? If you go online,
13 that's what made me do it, if you go online and just Google, that's what I did. It's
14 all here exactly what each one of your duties are and your responsibility to this
15 City, okay and if you see cities that have documents that help Commissioners. In
16 other words, I did not like what he did to you. He scolded you thinking that you
17 were somehow attached to the Staff, and the Staff was telling you what to do.
18 The Staff looks for your direction, and that is what they get is your direction.
19 You're no one's puppet. That's what George tried to do that day, and that is what
20 got me angry, and that is what made me go out and look at the responsibility of
21 each one of you. I am glad to be here to learn because I learn from each one of
22 you what a resident should be doing every time something like this comes up, to
23 fight for development, to fight for jobs, to fight for housing, to fight for things. This
24 is why I come here every month to learn. Thank you.
25

26 **CHAIR LOWELL** – Thank you, Sir. Anybody else wishing to speak on
27 something that is not on the Agenda tonight? Going once, going twice....I would
28 like to close the Non-Public Hearing Items. That moves us onto the Public
29 Hearing Item for tonight. The first one is Case PEN16-0164. The Applicant is
30 Raafar Shahid, and the Case Planner is Ms. Julia Descoteaux.
31

32
33 **PUBLIC HEARING ITEMS**
34

- 35 1. Case: PEN16-0164
36 Applicant: Raafat Aziz Shahid
37 Owner: Butterfield Valley Partners
38 Representative: Raafat Aziz Shahid
39 Location: 25073 Sunnymead Blvd Suite D-14
40 Case Planner: Julia Descoteaux
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1 Council District: 3
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3 Proposal: PEN16-0164 Conditional Use Permit
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6 **STAFF RECOMMENDATION**
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8 Staff recommends that the Planning Commission **APPROVE** Resolution No.
9 2017-15, and thereby:

- 10
11 1. **CERTIFY** that the land use exchange proposed with PEN16-0164
12 Conditional Use Permit (Existing Structures) is exempt from the provisions
13 of the California Environmental Quality Act (CEQA), as a Class 1
14 Categorical Exemption, CEQA Guidelines, Section 15301 for Existing
15 Facilities; and
16
17 2. **APPROVE** PEN16-0164 Conditional Use Permit (Existing Structure)
18 subject to the attached Conditions of Approval included as Exhibit A.
19
20
21

22 **PLANNING OFFICIAL RICK SANDZIMIER** – Just for the record, I just wanted to
23 introduce Julia as our Associate Planner in the Community Development
24 Department.
25

26 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Thank you. The Applicant is
27 Mr. Shahid, and he is proposing a modification to his existing site to sell distilled
28 spirits, in addition to beer and wine, which he currently sells. Mr. Shahid has
29 been running the Shahid Convenient Store since 1998 at 25073 Sunnymead
30 Boulevard in Suite D14. The current Type 20 ABC License allows him to sell
31 beer and wine. He is going to be requesting of the Alcohol Beverage Control
32 Board to obtain a Type 21 License to sell distilled spirits. The existing store
33 again is located on Sunnymead Boulevard in the Butterfield Valley Village
34 Shopping Center. The use is a permitted use within the City’s Municipal Code,
35 which allows convenient stores. However, since the site is within 300 feet of
36 residential, he is required to get a Conditional Use Permit. The existing shopping
37 center includes a variety of different uses, including his convenient store, a
38 supermarket, grocery store, a mini mall, and other retail businesses. The project
39 was reviewed by Staff, as well as the Moreno Valley Police Department. They
40 reviewed the project, and the only condition was that he surrender his current 20
41 ABC License when he obtains the 21. The surrounding areas include some
42 community commercial zoning to the east, residential to the south, and
43 community commercial within the village plan to the west. The convenient store
44 is within the existing commercial center. There will be no proposed changes to
45 the center via the driveways or any other parts of the center with this application.
46 The project has been reviewed in accordance with the California Environmental

Minutes Acceptance: Minutes of Mar 23, 2017 7:00 PM (APPROVAL OF MINUTES)

1 Quality Act and has been determined that, under the provisions of CEQA, it
2 qualifies as a Class 1 Categorical Exemption (15301). Staff recommends that
3 the Planning Commission approve Resolution 2017-15 certifying that the use is
4 exempt from the provisions of the California Environmental Quality Act and
5 approve the Conditional Use Permit to allow the sale of distilled spirits. This
6 concludes my report, and the Applicant and myself are here to answer any
7 questions for you. Thank you.

8
9 **CHAIR LOWELL** – Thank you. I have a question for Staff. On page 92 of the
10 packet, section C3, it says city right-of-way. I’m assuming that’s just a boilerplate
11 comment where it says the city expressly reserves the right to establish, modify,
12 adjust any fee, dedication, reservation, or other exaction to the extent permitted.
13 I’m assuming that’s just boilerplate and there is no right-of-way. No
14 improvements like you said.

15
16 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – That’s correct.

17
18 **COMMISSIONER BAKER** – I have one other. Not to be nitpicky here, but under
19 site it says Sunnymead Boulevard and Alessandro. It should be Perris, correct?
20

21 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Correct. It should be Perris.
22

23 **COMMISSIONER BAKER** – Okay and one declaration I want to make. I did go
24 to the site and met with Rafael, so just so everybody knows that and saw what
25 was going on. Thank you.

26
27 **COMMISSIONER SIMS** – Similar to Chairman Lowell’s, on page 92, the
28 fee....basically all of Section C is that.....except for it looks like.....are there any
29 fees to be collected with this?
30

31 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – No.
32

33 **COMMISSIONER SIMS** – This is just a standard catchall?
34

35 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – It’s just a standard in the
36 resolution, yes.
37

38 **COMMISSIONER SIMS** – Okay.
39

40 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – But there are no fees because
41 the site is already developed, so they do not apply.
42

43 **COMMISSIONER SIMS** – Very good.
44

45 **CHAIR LOWELL** – On packet page 94, under P2 and P3, I have a question. P2
46 says that, once the ABC Permit 21 gets issued, they have to surrender their type

1 20 Permit. Is a type 21 more inclusive? It'll cover everything that the type 20
2 already does?

3
4 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Yes. It includes all alcohol.

5
6 **CHAIR LOWELL** – Okay.

7
8 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Whereas the 20 is beer and
9 wine only and the 21 includes beer, wine, and distilled spirits.

10
11 **CHAIR LOWELL** – Okay, alright, so surrendering the type 20 is just a matter of
12 practice, no big deal?

13
14 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Pardon?

15
16 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Surrendering the original
17 permit.....

18
19 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Yes.....

20
21 **CHAIR LOWELL** – Is just a matter of practice.

22
23 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Right.

24
25 **CHAIR LOWELL** – And then, on P3, it says the Applicant shall move the existing
26 cigarettes wall sign. That's just the cigarettes on the outside of the building,
27 right?

28
29 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Currently, the wall sign that
30 tells you that the store is there just says cigarettes, and we're requesting, per the
31 Municipal Code, the sign above the building should represent the use that's
32 being done there. That sign was original to the prior occupant and hasn't been
33 changed, so we're asking the Applicant to revise the sign and put up a new sign
34 representing his business.

35
36 **CHAIR LOWELL** – And the business itself will be selling tobacco still?

37
38 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – It's a convenient store, so
39 there are tobacco sales, beer and wine, the distilled spirits, and all the other items
40 that you would normally find at a convenient store.

41
42 **CHAIR LOWELL** – I thought that was the case. I was just trying to clarify.

43
44 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Okay.

45

1 **CHAIR LOWELL** – Thank you very much. Anybody else wishing to speak?
2 Questions of Staff?

3
4 **VICE CHAIR BARNES** – I have one. P5: A change of modification shall require
5 a separate approval. Violation may result in revocation of the approved permit.
6 What’s the scope of those changes?

7
8 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – Well....

9
10 **VICE CHAIR BARNES** – That seems a little vague I guess.

11
12 **ASSOCIATE PLANNER JULIA DESCOTEAUX** – If they were doing any
13 changes to the exterior of the building. If they wanted to do a different type of a
14 use then they have to come back in and modify it and the violation means that, if
15 they violate the Conditional Use Permit, they have problems, then we bring
16 that.....there’s a process that they would have to go....we would have to go
17 through and bring it back to you to revoke the Conditional Use Permit.

18
19 **VICE CHAIR BARNES** – I think you need to make that a little clearer in that
20 condition. If I were him I would think that anything I did I’d have to come to the
21 City and say, is this okay to do?

22
23 **PLANNING OFFICIAL RICK SANDZIMIER** – I would recommend to make two
24 changes. One I would recommend that we change the word shall to may
25 because there’s so many changes that could occur. It might be better to say (a
26 change or modification to the use of the property may require a separate
27 approval).

28
29 **VICE CHAIR BARNES** – Okay.

30
31 **PLANNING OFFICIAL RICK SANDZIMIER** – And that way.....

32
33 **VICE CHAIR BARNES** – The insertion of the word use makes a big difference.

34
35 **PLANNING OFFICIAL RICK SANDZIMIER** – And then I think we should also
36 include another sentence in there that says (prior to any modification to the land
37 use the property owner shall coordinate or contact the City of Moreno Valley).

38
39 **VICE CHAIR BARNES** – That helps.

40
41 **PLANNING OFFICIAL RICK SANDZIMIER** – So then we could...we don’t know
42 what the change would be, but we’d allow them to check in with us. We could tell
43 them that’s going to be fine, you don’t have a new permit that is needed, and
44 there may be an opportunity, if there is, that we kind of catch it. Those would be
45 my two recommended suggestions.

1
2 **VICE CHAIR BARNES** – That’s better. I like that. That helps. Thank you.

3
4 **CHAIR LOWELL** – Any other questions before we invite up the Applicant?
5 Nope? Mr. Shahid, if you would like to come up and say anything. If you’re
6 okay, then you’re okay. Okay, thank you. Do we have anybody wishing to speak
7 on this? It looks like we have Mr. Rafael Brugueras. I would like to open the
8 Public Hearing.

9
10 **SPEAKER RAFAEL BRUGUERAS** – Good evening again Chair, Commissions,
11 Staff, Residents, and Guests: I went to the site for one specific reason. When I
12 looked at the Agenda, and I read it myself, and I learned now what type 20 and
13 type 21 are. When I kept reading through the Staff’s Report, I realized he wanted
14 to change....he wanted to sell liquor and I said wait a minute, liquor, so I gotta go
15 see for myself, okay, because I know the plaza well. I know the supermarket on
16 the corner, but I never thought of the little store because I’ve never been in it, but
17 I know there is a shoe store that used to be on the side. So I don’t pay attention
18 to it anyway because of cigarettes, so I don’t smoke, so I just go right by it. I
19 went and I parked my truck on the side, and I walked along the sidewalk, and I
20 looked inside the store. I looked and I saw all the cigarettes and all the lotto
21 tickets, and I saw the wine on the side. I said to myself, where is he going to put
22 the liquor? So I said okay. I went to the supermarket, and I asked them what
23 time are they going to close? They said 10:00, so I’m thinking that he’s going to
24 keep the store open to generate business between 11:00 and 12:00 before
25 midnight or something. That’s my thought. So, anyway, I went inside the store,
26 and I talked to the clerk who I thought was the owner, but in reality it was not.
27 He asked me if I wanted to stay and wait for him, and I said sure. Come on over,
28 so I can talk to you, so I can know your plans. So I got to know him. I got to
29 know what he wanted to do with the liquor because my concern is, with the liquor
30 is, not to allow young people to be able to steal it or be easy to be attainable
31 where they can reach and take something. So I asked how is he going to do this
32 with the cigarette and the lotto tickets? He said what he is going to do like some
33 of the convenient stores, especially the Chevron on Stoneridge, they have the
34 lottos in the little machine, and he is going to put the cigarettes in a little box. So
35 he is going to have the cigarettes and the lotto in a box where they cannot be
36 touched, and in the back he is going to redesign everything where no one can go
37 behind the counter and buy liquor without them knowing it, so that made me glad
38 to hear. He should have spoke because he has a story. He was given a letter of
39 appreciation because one night a young man walked into this store and opened
40 up the refrigerator box. So he stops them when he thinks they look young.
41 Anyway, the kid wanted to buy beer. He told them no, but what he didn’t realize
42 is that there was an undercover cop watching him from the door. The
43 undercover cop told him thank you for what you did, and they gave him an
44 award. That’s what made me to come and speak for him on his behalf. He is a
45 man that is going to keep us safe and keep the law the way it should be in our
46 city.

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CHAIR LOWELL – Thank you, Rafael. Anybody else wishing to speak? Going once, going twice.....I would like to close the Public Hearing. Does anybody have any questions or comments? Would the Applicant like to respond to anything he has heard so far?

COMMISSIONER NICKEL – I just wanted to clarify Commissioner Baker, when you said Rafael, did you mean Mr. Brugueras?

COMMISSIONER BAKER – Yes.

COMMISSIONER NICKEL – Okay, well.....

COMMISSIONER BAKER – No, Rafael the owner. Not Rafael Brugueras. I'm sorry.

COMMISSIONER NICKEL – No, that's okay.....

CHAIR LOWELL – That's a good clarification.

COMMISSIONER NICKEL – Just so it's in the Minutes.

COMMISSIONER BAKER – Okay.

COMMISSIONER NICKEL – Yeah.

COMMISSIONER BAKER – Two Rafael's going on here.

COMMISSIONER NICKEL – For our clerk for the Minutes.

CHAIR LOWELL – Any other questions, comments, concerns?

VICE CHAIR BARNES – I have a question. Oh, go ahead.

COMMISSIONER BAKER – One thing. I did go to the store, and I do like the way he is putting the liquor behind the counter. He's got a good plan there, so it's not going to be accessible to the public, and he runs a good store from what I could see the time I was around there. So I really like his project, okay, thank you.

VICE CHAIR BARNES – Where's the nearest type 21 to this location?

ASSOCIATE PLANNER JULIA DESCOTEAUX – That would be the grocery store next door.

VICE CHAIR BARNES – Oh, okay.

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CHAIR LOWELL – Across the street at the gas station.

VICE CHAIR BARNES – The gas station sells liquor?

ASSOCIATE PLANNER JULIA DESCOTEAUX – And then the gas station across the way.

VICE CHAIR BARNES – Really?

ASSOCIATE PLANNER JULIA DESCOTEAUX – Yes.

COMMISSIONER NICKEL – There’s a 7-11 across Perris as well that would sell liquor as well.

VICE CHAIR BARNES – Well I guess I don’t buy much liquor.

COMMISSIONER NICKEL – Me neither.

CHAIR LOWELL – Maybe you need to buy more. You have a great store that sells it right here.

COMMISSIONER NICKEL – It was just Slurpees when my kids were growing up.

VICE CHAIR BARNES – Okay, thank you.

CHAIR LOWELL – Commissioner Sims.

COMMISSIONER SIMS – Thanks. I was just going to note that this request for upgrading the liquor license and Conditional Use Permit seems consistent with the sales already going on in the shopping center so I plan to support this.

CHAIR LOWELL – To me, it seems pretty open and shut also. Any other questions, comments, concerns? Would anybody like to make a motion?

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chair.

CHAIR LOWELL – Yes, Sir.

PLANNING OFFICIAL RICK SANDZIMIER – Two things. One: I just wanted to read into the record the language I came up with for the modified Condition #5 if you guys want to go forward with a motion to include this one.

CHAIR LOWELL – Yes, Sir.

1 **PLANNING OFFICIAL RICK SANDZIMIER** – A change or modification, this is
2 the replacement condition for P5. A change or modification to the land use may
3 require a separate approval. Prior to any change or modification to the land use
4 of the site, the property owner shall contact the City of Moreno Valley Community
5 Development Department to determine if a separate approval is warranted.
6 Violation may result in revocation of the approved permit.

7
8 **CHAIR LOWELL** – I like that.

9
10 **VICE CHAIR BARNES** – That’s pretty good.

11
12 **PLANNING OFFICIAL RICK SANDZIMIER** – The other clarification I wanted to
13 make is you had asked me a question about something to the effect of cigarette
14 sales. I did want to call out to the Commissions attention Condition P3. We have
15 actually worked with the Applicant to get him to agree to change the name on the
16 store. Right now, it says cigarettes across the top, which makes someone think
17 maybe it is just a cigarette shop. Early on, before he acquired this business, it
18 was a smoke shop, but the signage has never changed. So, in doing this, we are
19 going to give better recognition to it being a convenient store, and so we think
20 that will be actually helpful to him and also helpful to the shopping center in
21 general. So I just wanted to call that out. Thank you.

22
23 **CHAIR LOWELL** – Would anybody like to make a motion?

24
25 **COMMISSIONER BAKER** – I’ll make a motion. I move that we approve
26 Resolution 2017-15 and thereby certify that the land use change proposed with
27 PEN16-0164 Conditional Use Permit for Existing Structures is exempt from the
28 provisions of the California Environmental Quality Act (CEQA) and as a Class 1
29 Categorical Exemption (CEQA Guidelines Section 15301) for Existing Facilities
30 and also approve PEN16-0164 Conditional Use Permit (Existing Structures)
31 subject to the attached Conditions of Approval included as Exhibit A.

32
33 **CHAIR LOWELL** – As amended.

34
35 **COMMISSIONER BAKER** – As amended.

36
37 **CHAIR LOWELL** – Can you push the motion mover button? The green one way
38 up top. Use the pen.

39
40 **COMMISSIONER BAKER** – I pushed it hard. Oh, pen?

41
42 **CHAIR LOWELL** – There we go.

43
44 **COMMISSIONER BAKER** – Okay, got it. The magic touch. Thank you.

45

1 **CHAIR LOWELL** – We have a motion by Commissioner Baker. We have a
2 second by Vice Chair Barnes. Please cast your votes. Waiting on Ms. Korzec.

3
4 **COMMISSIONER NICKEL** – Pass the pen.

5
6 **CHAIR LOWELL** – Here. I'll help you cast your vote. Ah, technology. It says all
7 votes have been cast. We're good to go. Okay, going once, going twice.....the
8 motion passes 7-0. Do we have a Staff wrap-up on this item?
9

10
11 Opposed – 0
12

13
14 **Motion carries 7 – 0**
15

16
17 **PLANNING OFFICIAL RICK SANDZIMIER** – Yes. The action just taken by the
18 Planning Commission is an appealable action. If any interested party has an
19 objection to the actions taken by the Planning Commission, and they appeal that
20 decision to the City Council, that appeal should be filed through the Community
21 Development Director within 15 days of this action. If an appeal is filed, we will
22 schedule it for a Hearing before the City Council within 30 days.
23

24 **CHAIR LOWELL** – Thank you, Mr. Sandzimier. Thank you very much, Mr.
25 Shahid. I hope you do very well in your business. That moves us onto the
26 second item for tonight, and it looks like we, nope, Mr. Sims is not ready to speak
27 on that one. Other Commissioner Business, which is the second item. Planning
28 Commission recommendation for modification of Ordinance #890, Report of the
29 Community Development Department.
30

31
32 **OTHER COMMISSION BUSINESS**
33

34 2. Case:	Not applicable
35	
36 Applicant:	Planning Commission Recommendation
37	
38 Owner:	Not applicable
39	
40 Representative:	Not applicable
41	
42 Location:	Not applicable
43	
44 Case Planner:	Richard Sandzimier, Planning Official
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46 Council District:	City-wide

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PLANNING OFFICIAL RICK SANDZIMIER – Yes, Rick Sandzimier, Planning Official. At your meeting on February 23, 2017, the Commission entertained some discussion about the Rules and Procedures of the Commission, and during the dialogue on those particular Rules and Procedures, the Commission asked also for consideration with regard to compensation for the Alternate Commissioners. We informed you at that time that that was something that was outside of the rules of the Commission and would need to be handled separately. So, this evening, what we have to put together is a simple Staff Report and our interpretation from what we thought we heard from the Planning Commission. We tried to formulate that into a resolution recommending the change to Ordinance #890, which is really now a portion of the City’s Municipal Code. We interpreted your dialogue to basically say that currently the restriction is that Alternate Commissioners are compensated if they participate in the meeting, which means that they sit at the dais and participate in an item or the entire meeting. We have made a recommendation, if we’ve interpreted you correctly, that would mean that they are present at the meeting and that recognizes that the Alternate Commissioners are preparing for the meeting, they stand ready to sit at the dais, they have been attending on a regular basis, and so that is what we’re trying to reflect in this particular resolution. With the Planning Commission most favorably in favor of this particular resolution, our next step would be taking this before the City Council for them to consider this matter. The item does have a financial impact because of compensation to additional Commissioners. We would take that information to the City Council. That would be the only, I think, additional information we would have to provide to the City Council on this particular item. I don’t know if the City Attorney wants to add anything if I have missed anything. Otherwise, we are here to answer questions.

CHAIR LOWELL – Vice Chair Barnes.

VICE CHAIR BARNES – Paul, did you want to speak? When we discussed this at the last meeting, I originally was not necessarily in favor of it because I thought the alternates were choosing to attend on their own volition every meeting thinking that they should only attend when they were needed. I thought it was their choice to be here, but in reading the Ordinance, it says shall attend, which says to me that they don’t have an option. So, given that they shall attend, I definitely think they should be paid. If the Council were to change that to attend only when needed or something that would be a different story, but since the Ordinance says shall I think we should move this forward.

CHAIR LOWELL – I agree. Does anybody have any other questions on this one or comments?

Minutes Acceptance: Minutes of Mar 23, 2017 7:00 PM (APPROVAL OF MINUTES)

1 **COMMISSIONER NICKEL** – Yeah, I just have one comment. I’m kind of
2 concerned because of the status of the Commission in light of Council’s decision
3 on Tuesday that maybe this should not be going forward until the decision is
4 made. That’s just kind of how I feel.

5
6 **CHAIR LOWELL** – This is just our recommendations to Staff, and then they are
7 going to do.....

8
9 **COMMISSIONER NICKEL** – No. They have to go forward with it.

10
11 **CHAIR LOWELL** – Commissioner Sims.

12
13 **COMMISSIONER SIMS** – Well I originally was not in support when we were
14 changing the whole Rules and Procedures in 2015 to support having alternate
15 planning commissioners because it creates another level of bureaucracy to deal
16 with and more rules and regulations and so forth and so on, but we have it. It
17 has actually turned out to be pleasant, and I strongly support that we do this. I
18 think we should direct Staff to bring this at an appropriate time, not necessarily
19 right when we’re in the upheaval of whatever is going to happen at Council with
20 appointments of Planning Commissioners. Once we get past that point and this
21 can go to Council, I then also suggest that the Chair of the Planning Commission
22 and maybe supported by the Vice Chair go and speak in favor during comment to
23 support this. This is putting in time and effort to be here. I was at the point
24 whether it was a shall or a may. If you have people interested in taking the time
25 to read through the packets and be here and be ready to go, they should be an
26 equivalent stipend to the regular planning commission. We might find that, to all
27 my objections and dismay of having the alternate planning commissioners may
28 come to good need here in the next few weeks.

29
30 **CHAIR LOWELL** – Since we revised the rules that they now count towards
31 quorum. Any other questions, comments, concerns?

32
33 **COMMISSIONER KORZEC** – I think this is what we asked for, and I think it is
34 well done. However, I think in light of the climate of what is going on, I would like
35 to see us just maybe hold back on this until the new Commission is seated in
36 fairness to the new people coming onboard.

37
38 **CHAIR LOWELL** – I don’t think this is very contentious. I think we should make
39 the recommendation and let Staff do with it what they wish, go at their pace.

40
41 **COMMISSIONER SIMS** – If we take action in support of this Resolution, are you
42 on the clock to get it on a Council Agenda within a specified time?

43
44 **PLANNING OFFICIAL RICK SANDZIMIER** – I don’t believe we’re on a clock. I
45 would add this. We are in the midst of developing our budget...the new budget
46 for the coming year is not yet approved. This is an appropriate time to be

1 considering if we're going to be adding additional compensation. We could at
2 least consider it in the context of the budget. If the City Council were to adopt it, I
3 would only recommend that maybe that consideration be given at some point
4 before the new budget is adopted. It doesn't have to go to the next meeting. We
5 do have a little bit of time. I think the Commission taking an action this evening is
6 probably a good time if you're going to take an action because it is the last time
7 this Commission technically will be seated, and I don't know what is going to
8 happen after that, so it's an opportunity, so I would just offer that.

9
10 **COMMISSIONER SIMS** – I would tend to agree and I understand. That's why
11 I'm not a general manager at work. I never did figure out the politics of things,
12 but at the end of the day we do have seven plus two, except minus our one that
13 is gone right now, but the absent seat we've kind of worked together to get to the
14 point of where we're at and the rock is right there. We should push it to the top of
15 the hill, and I would think that regardless of what happens as far as the planning,
16 I think it is a good legacy for our Planning Commission that we push this forward
17 and get this done. I think it's the right thing to do.

18
19 **VICE CHAIR BARNES** – I agree.

20
21 **COMMISSIONER KORZEC** – Well you also have two people here that are voting
22 themselves pay raise who are up, who are being considered to be on the
23 Commission. I just don't want to put them in jeopardy by some sort of someone
24 thinking their voting themselves a pay raise.

25
26 **COMMISSIONER NICKEL** – I have no problem abstaining.

27
28 **COMMISSIONER KORZEC** – Oh, abstaining, okay.

29
30 **COMMISSIONER NICKEL** – If that makes it better.

31
32 **COMMISSIONER KORZEC** – No, I just.....

33
34 **COMMISSIONER SIMS** – It's a Securitas. It's a dual loop because whoever's on
35 it.

36
37 **COMMISSIONER NICKEL** – Is that okay with you Erlan?

38
39 **COMMISSIONER BAKER** – Let me ask you one thing. Right now, the way your
40 Planning Department budget sits, you don't have monies to cover this. You're
41 going to have to appropriate funds to cover this \$2200 or \$2400, right?

42
43 **PLANNING OFFICIAL RICK SANDZIMIER** – That's correct.

44
45 **COMMISSIONER BAKER** – I want to put that on the record, okay.
46

1 **COMMISSIONER SIMS** – Do I dare say a way to solve that problem?
2
3 **VICE CHAIR BARNES** – No.
4
5 **COMMISSIONER KORZEC** – How do we do that?
6
7 **COMMISSIONER SIMS** – We all take a pay cut.
8
9 **VICE CHAIR BARNES** – I told you not to say that.
10
11 **COMMISSIONER NICKEL** – Yeah, well I meant.....
12
13 **CHAIR LOWELL** – Turn his microphone off so nobody can actually hear him.
14
15 **COMMISSIONER NICKEL** – I met some Commissioners at the academy who
16 only get \$25, but I didn't tell them how much we get.
17
18 **CHAIR LOWELL** – Alright, I'm okay making a motion on this one. I like this. I
19 think we're doing a good job. I think City Staff has done a tremendous job on this
20 one also. Do we have to make a motion or is it just a.....
21
22 **ASSISTANT CITY ATTORNEY PAUL EARLY** – Yeah. It's a motion, a second,
23 and adoption of the Resolution.
24
25 **CHAIR LOWELL** – I'll make the motion that way nobody else has to worry about
26 it.
27
28 **COMMISSIONER BAKER** – And I'll second.
29
30 **CHAIR LOWELL** – I haven't read the motion yet.
31
32 **COMMISSIONER BAKER** – Oh yeah, okay, sorry.
33
34 **CHAIR LOWELL** – I would like to make a recommendation that the Planning
35 Commission approves Resolution No. 2017-17. Should I read the whole thing or
36 is that good enough?
37
38 **ASSISTANT CITY ATTORNEY PAUL EARLY** – That's sufficient.
39
40 **CHAIR LOWELL** – We have a motion by me. We also have a second by
41 Commissioner Baker.
42
43 **COMMISSIONER BAKER** – Yeah.
44

1 **CHAIR LOWELL** – All in favor, all oppose, all abstentions, please cast your
2 votes. All votes are cast. The motion passes 6-0 with one abstention. Do we
3 have a Staff wrap-up on this item?

4
5
6 Opposed – 0
7
8

9 **Motion carries 6 – 0 – 1 with one abstention**

10
11
12 **PLANNING OFFICIAL RICK SANDZIMIER** – I believe this is an appealable
13 action. However, the ultimate decision does rest with the City Council, so it
14 ultimately would be before the City Council. So I would ask the City Attorney, is it
15 appealable or not?

16
17 **ASSISTANT CITY ATTORNEY PAUL EARLY** – There is not anything to appeal
18 here, no.
19

20 **PLANNING OFFICIAL RICK SANDZIMIER** – There isn't, okay.
21

22 **ASSISTANT CITY ATTORNEY PAUL EARLY** – It's just a recommendation. It's
23 not a Public Hearing Item.
24

25 **PLANNING OFFICIAL RICK SANDZIMIER** – Okay.
26
27

28 **STAFF COMMENTS**
29
30

31 **CHAIR LOWELL** – Okay, with that said, that moves us onto our last little bit of
32 business. Do we have Staff Comments?
33

34 **PLANNING OFFICIAL RICK SANDZIMIER** – We have nothing.
35

36 **CHAIR LOWELL** – Nothing? After all this time, you have nothing? No.
37
38

39 **PLANNING COMMISSIONER COMMENTS**
40
41

42 **CHAIR LOWELL** – Planning Commissioner Comments. Does anybody want to
43 say anything? Commissioner Ramirez.
44

45 **COMMISSIONER RAMIREZ** – Well, this may very well be my last meeting here,
46 and I would like to take this opportunity to thank the City of Moreno Valley. It has

1 been a humbling experience to work with some fine and amazing
2 Commissioners, both past and present. We have done a tremendous job in
3 moving this city forward. I would like to thank the Staff as well. We went from
4 our past Planning Official, John Terrell and everyone else that's worked under
5 him to Rick Sandzimier as well. I am very excited about the direction in which
6 our City is going. It looks very bright, and the City is in great hands. Thank you
7 Moreno Valley, and thank you everybody for allowing me the opportunity to serve
8 you.

9
10 **CHAIR LOWELL** – Thank you, Commissioner Ramirez. Vice Chair Barnes.

11
12 **VICE CHAIR BARNES** – A couple of things. First of all, with only a hint of
13 sarcasm, I would like to congratulate Commissioner Baker whose eight years of
14 service actually warranted a nomination for reappointment. For the rest of you
15 who are vying for a reappointment, I would like to second what he just said.
16 Thank you all for your help and your support. I think it has been an excellent
17 Commission. I've learned a lot, and I've been helped a lot by both Staff and my
18 fellow Commissioners. I think we've done a very good job of handling some very
19 contentious projects professionally and cordially. I think we've done a good job,
20 and I wish all of the applicants the best of luck, particularly the ones who are
21 currently sitting because you guys deserve to be reappointed, and I hope it works
22 out that way. Then, lastly up on my soapbox, City Government in Moreno Valley
23 has had more than its fair share of teachable moments the last few years. From
24 what I see, it appears that we've not learned very much, so I would implore the
25 Council to please do what you've been elected to do, govern the city and get
26 some of these things done. So, with that, thank you everyone. It has been a
27 very pleasant couple of years, so best of luck. Thank you.

28
29 **CHAIR LOWELL** – Thank you, Mr. Vice Chair. Anybody else? Going once,
30 going twice.....okay, I have a couple of comments. Echoing Commissioner
31 Ramirez's statements, this too, might very well be my last meeting. I'm up for
32 reappointment, and the decision hasn't quite been made yet, so what I would
33 recommend for Staff moving forward is we have the potential for having six new
34 faces up here that are green just like I was when I first started. I would highly
35 recommend that Staff give a training course to the new commissioners on how
36 the meeting is run, what to say, when to say it, where to say it, order of
37 operations, how the Board works itself, how the Commission works, who gets to
38 be Chair and what their responsibilities are, who gets to be Vice Chair and what
39 their responsibilities are. Similar with the alternates, it was a big learning curve
40 when I first started. We were not given that kind of privilege to figure out what
41 we're supposed to do and when we're supposed to do it, but in the four years of
42 experience I think I've had, I think we've got it down pretty good. The
43 Commission itself has been working flawlessly. I think we have a great rapport
44 up here. City Staff has been doing a tremendous job, and I applaud you guys for
45 all the effort and time you spend, the late nights you spend. It has been an
46 amazing experience, humbling, educational, informative. It's really nice to be

1 able to see the city move forward and see the City’s desire to make the city as
2 effective, as beautiful, as successful as possible. Yeah, so with that, I want to
3 thank everybody. It has been a pleasure being your Chairman for the last two
4 years and Vice Chair before that. So thank you very much, and hopefully I see
5 you guys in April.

6
7 **PLANNING OFFICIAL RICK SANDZIMIER** – If I may, with the nice compliments
8 that some of the Commissioners have extended to the Staff, I do want to take the
9 opportunity to tell you all before you do leave or come back or whatever might
10 happen. I’ve been here for two-and-a-half years, and I’ve enjoyed every moment
11 of working with this Commission. I think that you are an effective Commission. I
12 think you guys keep us on our toes. You are thorough. You articulate in the way
13 you ask your questions. You kept my Staff busy and learning, and we’re getting
14 better because of it. I want to thank the gentleman to my right, Chris Ormsby.
15 He has been doing this a lot longer with the City than I. The Staff that come here
16 before you and make those presentations work very closely with Chris, and so
17 without the team, we’re not as good as we can be. Our City Attorney’s office and
18 our Recording Secretary are all part of this, so we appreciate what you guys
19 have done, and we appreciate the opportunity to serve you.

20
21 **CHAIR LOWELL** – Thank you very much. With that said.....microphone.

22
23 **COMMISSIONER SIMS** – I just...this is more directed to....well, it takes a while
24 for teams to start to click, and so I don’t know how long I’ve been.....I think I’m
25 close to four years, or three years, maybe I’m in three years, but anyhow I’ve
26 really enjoyed working with all of the Planning Commissioners. Change is
27 always good because there’s change and sometimes change should be done in
28 an incremental process. Like, right now, we have a vacant seat because there
29 was a vacancy on this Planning Commission, which should seem like it would be
30 a very logical thing to bring in a little bit of change with somebody new. A whole
31 cell change might be difficult for the City, and I think we need.....sometimes when
32 there are things that are working well, you should let them continue to work well
33 with continuity and consistency. So, I hope to see all of you back, and good luck
34 on that.

35
36 **CHAIR LOWELL** – Commissioner Gonzalez, thank you very much.
37 Commissioner Ramirez, thank you very much. Commissioner Korzec, thank you
38 very much. Commissioner Barnes, thank you very much. Commissioner Nickel,
39 thank you. Commissioner Baker, thank you. Commissioner Sims, thank you.
40 Mr. Ormsby, Mr. Sandzimier, Mr. Early, Ms. Vargas, thank you very much.

41
42
43 **ADJOURNMENT**
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45

1 **CHAIR LOWELL** – I would like to adjourn the meeting tonight to the next regular
2 meeting, which is April 27, 2017, right here in Council Chambers at 7:00 PM.
3 Thank you very much, and have a great night.
4

5
6 **NEXT MEETING**

7 *Next Meeting: Planning Commission Regular Meeting, April 27th, 2017 at 7:00*
8 *PM, City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street,*
9 *Moreno Valley, CA 92553.*
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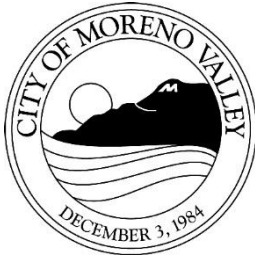
21 _____
22 Richard J. Sandzimier
23 Planning Official
24 Approved
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_____ Date

36 _____
37 Brian R. Lowell
38 Chair
39

_____ Date

Minutes Acceptance: Minutes of Mar 23, 2017 7:00 PM (APPROVAL OF MINUTES)



PLANNING COMMISSION

STAFF REPORT

Meeting Date: April 27, 2017

SELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON

RECOMMEND THAT THE COMMISSION:

1. Accept Nominations for and elect a New Chairperson
2. Accepts Nomination for and elect a New Vice-Chairperson

SUMMARY

The Planning Commission business is conducted in accordance with Rules of Procedures adopted by the Commission. Section I C(1) of the adopted Rules of Procedures outlines the process for selection of a Chairperson and Vice-Chairperson to serve as Officers of the Commission.

The Rules of Procedure specifically state:

“A Chairperson and Vice-Chairperson shall be elected annually from among the Commission’s membership at the first meeting in April, to serve at the pleasure of the Commission. The term of office for Chairperson and Vice-Chairperson shall be one (1) year. No person shall serve more than two consecutive terms as either Chairperson or Vice-Chairperson, however a commissioner may serve for two consecutive terms as Vice-Chairperson followed by two consecutive terms as Chairperson, or vice versa.”

Commissioners and Limitations:

Chairperson Lowell has served in the Chairperson position for the past two consecutive terms and per the established Rules of Procedure is not eligible to be selected as the Chairperson for a consecutive term. Commissioner Lowell is eligible to be selected as the Vice-Chairperson.

Vice-Chairperson Barnes has served in the Vice-Chairperson position for the past year and is eligible to be selected as the Vice-Chairperson for one additional term. Vice-Chairperson Barnes is eligible to be selected as the Chairperson.

Commissioners Korzec, Sims and Baker are eligible to serve in either the Chairperson or Vice-Chairperson position with no current limitations.

Per the established Rules of Procedures "Alternate members shall not be eligible to serve as Chairperson or Vice Chairperson."

Current Vacancies:

It is noted that the current make-up of the Commission does include two regular Commissioner vacancies, and the terms of the two Alternate members will expire on April 28. It is not known when the vacancies and expected vacancies will be filled. In light of this transition period, please note that Section I A of the Planning Commission Rules of Procedure does state that the Rules "shall be used as a guide to the conduct of the meetings of the Planning Commission; except as may otherwise be provided by applicable law, no omission to conform to said rules shall in any instance be deemed to invalidate any action taken by the Commission." This language provides some flexibility for the Commission that may be of interest as you consider this matter.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

1. Accept nominations for and elect a New Chairperson; and
2. Accept nominations for and elect a New Vice-Chairperson

Prepared by:
Richard J. Sandzimier
Planning Official

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. PC Rules of Procedure Amended 03.23.15

CITY OF MORENO VALLEY

PLANNING COMMISSION RULES OF PROCEDURE

I. RULES OF ORDER, ORGANIZATION AND OFFICERS

A. RULES OF ORDER

Except as otherwise provided in these Rules of Procedure, "The Standard Code of Parliamentary Procedure 4th Edition," shall be used as a guide to the conduct of the meetings of the Planning Commission; except as may otherwise be provided by applicable law, no omission to conform to said rules of order shall in any instance be deemed to invalidate any action taken by the Commission.

B. ORGANIZATION

The Planning Commission shall consist of seven regular members and two alternate members and shall be organized and exercise such powers as prescribed by Ordinance of the City of Moreno Valley.

C. OFFICERS

1. SELECTION

- a. A Chairperson and Vice-Chairperson shall be elected annually from among the Commission's membership at the first meeting in April, to serve at the pleasure of the Commission. The term of office for Chairperson and Vice-Chairperson shall be one (1) year. No person shall serve more than two consecutive terms as either Chairperson or Vice-Chairperson, however a commissioner may serve for two consecutive terms as Vice-Chairperson followed by two consecutive terms as Chairperson, or vice versa.
- b. If the Chairperson vacates his or her office before the term of office is completed, a new Chairperson shall be elected at the next regular meeting. A new Vice-Chairperson shall also be elected if the former Vice-Chairperson is elected Chairperson.
- c. In the absence of the Chairperson and Vice-Chairperson, any other member may call the Commission to order, whereupon a Chairperson pro tem shall be elected from the members present to preside. Alternate members shall not be eligible to serve as Chairperson or Vice-Chairperson.

2. RESPONSIBILITIES

The responsibilities and powers of the officers and staff of the Planning Commission shall be as follows:

a. Chairperson

- 1) Preside at all meetings of the Commission.
- 2) Call special meetings of the Commission in accordance with legal requirements and these Rules of Procedure.
- 3) Sign documents of the Commission.
- 4) See that all actions of the Commission are properly taken.
- 5) Assist staff in determining agenda items.
- 6) The Chairperson shall be an ex-officio member of all committees of the Planning Commission with voice but not vote.

b. Vice-Chairperson

During the absence, disability or disqualification of the Chairperson, the Vice-Chairperson shall exercise or perform all the duties and be subject to all the responsibilities of the Chairperson.

- c. The Planning Official with the assistance of his staff, shall be responsible for providing the Commission with proposed minutes of its meetings, with proposed forms of resolutions when appropriate, with staff reports and recommendations on matters of business which come before the Commission, and with proposed forms of recommendations and reports for the Commission.

D. POWERS AND DUTIES

The functions, powers and duties of the Planning Commission shall be all those functions, powers and duties of a Planning Commission and Board of Zoning Adjustment as provided in Chapters 3 and 4 of Title 7 commencing with Section 65100 of the Government Code of the State (the Planning and Zoning Law), as the same may be hereafter amended. The Planning Commission shall perform such other duties and functions as may be designated by the City Council.

E. ETHICAL PROCESS AND PROCEDURE

1. Whenever after appointment, a Commissioner possesses or is likely to possess a financial interest in a project which is pending or likely to be pending in the foreseeable future before the Commission, it is the duty of the Commissioner to disclose for the

record the interest and abstain not only from discussion and voting, but a higher duty to abstain from discussion with any other Commissioner or staff concerning any matters relevant to the project, wherein the Commissioner has a financial interest in the decision.

2. It is equally unethical and improper for such Commissioner to recommend to other individuals that they contact other Commissioners or staff with respect to any matter relevant to the project.
3. Whenever a Commissioner discovers the existence of a possible conflict of interest and is unsure as to that situation, the Commissioner should consult with the City Attorney or the staff of the FPPC for clarification of his or her position; in the event a financial interest or likely financial interest exists in a project, the record should so disclose and be available for review.
4. No Commissioner should continue to serve as a Commissioner if it appears likely that he or she will receive substantial financial gain (obtain a financial interest as defined in the FPPC) from a large number of Planning Commission decisions on projects in a broad area of interest.
5. Nothing contained herein shall be construed to relieve a Commissioner of any duty imposed by State law or to change the law and regulations applicable to conflict and disclosure matters.
6. With respect to membership by a Commissioner in any other organization which may be incompatible with membership on the Planning Commission, the Commissioner should consider, to the extent recognized by law, any or all of the following, as may be applicable:
 - a. Withdrawal of membership from either the Commission or the said organization.
 - b. Leave of absence from the conflicting organization.
 - c. Inactivity during Commission tenure.
 - d. Being a non-voting participant in the conflicting organization.
 - e. Being a non-office holder in the conflicting organization.
 - f. Being a non-policy making member in the conflicting organization.

- g. Making no public statements within or about the organization.

F. FITNESS TO SERVE; STATEMENT OF PRIOR CONVERSATIONS

1. Any Planning Commissioner who wishes to serve the City of Moreno Valley shall adhere to the goals, performance objectives, duties, responsibilities, ethical process and procedure, and public relations standards as herein listed.
2. Present Commissioners who wish to serve but cannot justifiably adhere to the contents of these Rules of Procedure must evaluate their fitness to serve.
3. Any Commissioner shall declare, prior to voting in the recorded minutes, whether or not they talked or otherwise communicated independently with the developer, with the proponents, or with the opponents or with a representative of the developer, proponents or opponents concerning a project under consideration. Commissioners shall further publicly disclose the substance of any such communication.

G. ABSENCES AND VACANCIES

1. Permanent or long term Commissioner vacancies shall be filled by alternate Commissioners in accordance with Ordinance 890 of the City of Moreno Valley.
2. Regular and alternate Commissioners should attempt to attend all meetings. In the event of an absence of a regular Commissioner for all, or any part of a meeting, an alternate Commissioner who is present shall be seated to serve as a full voting member of the Commission. If alternate Commissioners are not available to serve or are disqualified from serving for any reason, the Commission shall continue with the remaining regular Commissioners as long as a quorum is present. The minutes shall reflect the attendance, seating and voting record of all regular and alternate Commissioners.
3. Alternate Commissioners shall be called on a rotational basis if available. Each meeting will have a Primary and Secondary alternate Commissioner, which assignment shall rotate every meeting. If there is more than one absence or vacancy, the secondary alternate Commissioner may also be called to serve. The service or non-service of one or both alternate Commissioners at any meeting shall not affect the rotational order for any future meeting. For the first meeting after any appointment, the rotational order shall be established in alphabetical order by the last name of the Alternate Commissioner.

4. If a Commissioner is seated on the first day of any public hearing item, such Commissioner shall continue to be seated for that item until the completion of the vote on that item, without regard to the number of meeting dates the item is continued over. If a Commissioner seat was vacant on the first day of a public hearing item, that vacant seat may be filled by a regular or alternate Commissioner on future continued hearing dates if he/she makes a statement on the record that he/she has either (a) attended all prior hearing dates, (b) read all prior hearing transcripts, or (c) listened to the recordings of all prior hearings on the item. If a Commissioner has not met the aforementioned requirements, they shall be declared ineligible to be seated on the Commission for that item. In no case shall two different Commissioners fill the same vacant seat on any single public hearing item.
5. Alternate members shall be deemed to be participating in a meeting if they are seated as a voting member for all, or any part, of a meeting.
6. Commissioners may participate in the discussion and debate of an agenda item only if seated as a voting Commissioner.

II. MEETINGS

A. PUBLIC MEETINGS

All meetings shall be held in full compliance with state law, ordinances of the City, and these Rules of Procedure.

B. REGULAR MEETINGS

1. Regular meetings shall be held on the second and fourth Thursdays of each month at 7:00 p.m in the Council Chambers at City Hall, 14177 Frederick Street, Moreno Valley, California, unless otherwise determined by the Commission.
2. Whenever a regular meeting falls on a public holiday, no regular meeting shall be held on that day. Such regular meeting shall occur on the next business day, or cancelled by motion adopted by the Planning Commission.

C. ADJOURNED MEETINGS

In the event it is determined by the Planning Commission to adjourn its meeting to a certain hour on another day, a specific date, time, and place must be set by the Commission prior to the regular motion to adjourn, and the meeting so adjourned.

D. SPECIAL MEETINGS

Special meetings of the Planning Commission may be held at any time upon the call of the Chairperson or by a majority of the voting members of the Commission or upon request of the City Council following at least 48 hours' notice to each member of the Commission and to the press, and to each person who has duly requested notice of such meetings. The time and place of the special meeting shall be determined by the convening authority, except that the meeting place shall be within the corporate limits of the City. Only those matters of business described in the call and notice for a special meeting shall be considered by the Commission.

E. STUDY SESSIONS/WORKSHOPS

1. The Commission may be convened as a whole or as a committee of the whole in the same manner as prescribed for the calling of a special meeting for the purpose of holding a study session provided that no official action shall be taken and no quorum shall be required.
2. All study sessions shall be open to the public.

F. AGENDA

1. An agenda for each meeting of the Commission shall be prepared by the Planning Official or his delegate with the cooperation and approval of the Chairperson or in the absence of the Chairperson, by the Vice-Chairperson.
 - a. The Commission cannot guarantee that applicants meeting filing deadlines will be placed on the agenda of the first meeting thereafter.
 - b. A copy of the agenda for each meeting of the Commission shall be posted at City Hall seventy-two (72) hours prior to each regular meeting and at least twenty-four (24) hours prior to each special meeting of the Commission.

G. ORDER OF MEETINGS

1. Unless the Chairperson in his or her discretion otherwise directs, the order of business shall be as follows:
 - a. The Chairperson shall take the chair precisely at the hour appointed for the meeting and shall immediately call the Commission to order.
 - b. Members present and absent shall be recorded, including any alternate members. Alternate members shall be seated on the Commission, if necessary. If all regular Commissioners are present and no conflicts of interest have been announced or appear to be likely, the alternate

- members may be excused and review the video or transcript of the meeting in lieu of attendance.
- c. Pledge of Allegiance shall be made.
 - d. The agenda shall be approved as submitted or revised (to the extent permitted by law).
 - e. The public shall be advised of the procedures to be followed in the meeting.
 - f. The minutes of any preceding meeting shall be submitted for approval.
 - g. Public comment shall be taken, during which any member of the audience may comment on any matter which is not listed on the agenda. A time limit of three minutes shall be imposed on each individual.
 - h. The Commission shall then hear and act upon those proposals scheduled for consideration at public hearing, followed by such other matters of business and reports as the Commission or Planning Official finds to require Commission consideration, and as may be properly considered at that time.
 - i. No action shall be taken by the Commission during any regular meeting on any item not appearing on the posted agenda unless any of the following conditions apply:
 - 1) A majority of the Commission determines that an “emergency situation” exists.
 - 2) The Commission determines by a two-thirds vote, or by a unanimous vote if less than two-thirds of the members are present, that the “need to take action” on the item arose subsequent to the posting of the agenda, or
 - 3) The item was included in a properly posted agenda for a prior meeting occurring not more than five days prior to the date of the meeting at which the action is taken and was continued to the meeting at which the action is taken.
 - j. At 11:00 p.m., or as soon thereafter as practicable, a Commissioner may make a motion to adjourn the meeting and continue any remaining items to a future date.
 - k. Adjournment.

2. PRESENTATION OR HEARING OF PROPOSALS

The following shall be the order of procedure for public hearings or other proposals concerning planning and zoning matters, and for testimony, unless the Chairperson in his or her discretion shall otherwise direct.

- a. The Chairperson shall announce the subject of the public hearing or other proposals as advertised.
- b. If a request is made for continuance, a motion may be made, seconded and voted upon to continue the public hearing to a definite time, date and place. The Commission may elect to open the hearing and receive evidence prior to acting upon a request or motion to continue the matter.
- c. The staff shall be asked to present the substance of the application, staff report and recommendation, and to answer technical questions from the Commission.
- d. ORDER OF TESTIMONY
 - 1) Applicant's statement.
 - 2) Public comment.
 - 3) A rebuttal from the applicant.
 - 4) The Chairperson may allow further comments from opponents, proponents and applicant as deemed appropriate by the Chairperson.
 - 5) Public Hearing closed.
 - 6) The Commission shall then deliberate and either determine the matter or continue the matter to another date and time certain.
- e. RULES OF TESTIMONY
 - 1) Persons presenting testimony to the Commission are requested to give their name and address for the record.
 - 2) If there are numerous people in the audience who wish to participate on the issue, and it is known that all represent the same opinion, a spokesman should be selected to speak for the entire group, if possible. The spokesman will thus have the opportunity of speaking for a reasonable length of time and of presenting a complete case.
 - 3) To avoid unnecessary cumulative evidence, the Chairperson may limit the number of witnesses or the time of testimony on a particular issue.

- 4) Irrelevant and off-the-subject comments will be ruled out of order.
- 5) The Chairperson will not permit personal remarks regarding the staff or individual Commissioners during a Public Hearing. Complaints should be submitted in writing or presented verbally as a separate item on the agenda.
- 6) No person shall address the Commission without first securing the permission of the Chairperson to do so.
- 7) All comments shall be addressed to the Commission. All questions shall be placed through the Chair.

H. MOTIONS

1. Action upon an order, resolution or other action of the Commission may be proposed by any commissioner by a motion. Before a motion can be considered it must be seconded, at which time it shall be on the floor and must be considered. If not seconded, the motion is lost for lack of a second.
2. A motion to adjourn shall always be in order except during roll call.
3. The Chairperson of the Commission, or other presiding officer, may make and second motions and debate from the Chair subject only to such limitations of debate as are imposed on all members of the Commission. However, since the Chairperson is primarily responsible for the conduct of the meeting, if he or she personally desires to engage in extended debate on questions before the Commission, he or she should consider turning the Chair over to another Commissioner.

I. VOTING

1. VOTING REQUIREMENTS

- a. Four Commissioners shall constitute a quorum. Alternate members shall be counted in determining if a quorum is present. An affirmative vote of a majority of Commissioners present and voting (but not less than three votes) shall be required to carry a motion, unless a larger number of votes is required by applicable ordinance or other law.
- b. When a member of the Commission abstains from voting on any matter before it because of a potential conflict of interest, that member shall not be counted towards meeting any quorum requirement. Furthermore, said vote

shall not constitute nor be considered as either a vote in favor of or opposition to the matter being considered. When a member of the Commission abstains from voting for any reason other than a potential conflict of interest, the abstention shall be counted with the majority.

2. RECORDING OF VOTES

The minutes of the Commissioner's proceedings shall show the vote of each member, including if they were absent or failed to vote on a matter considered.

3. DISQUALIFICATION FROM VOTING

A member shall disqualify himself or herself from voting in accordance with the applicable Conflict of Interest Code. When a person disqualifies himself or herself, he or she shall disclose the disqualification prior to Commission consideration of the matter, and the disqualified member shall then leave the voting area.

4. RECONSIDERATION

A motion for reconsideration of a matter may be made by any commissioner who voted with the prevailing majority on the matter to be reconsidered. Any commissioner may second a motion for reconsideration. If the matter under reconsideration was first considered under a public hearing, the public hearing shall be reopened before any additional evidence is considered. A motion for reconsideration must be made at the same meeting as the meeting where the matter was voted upon.

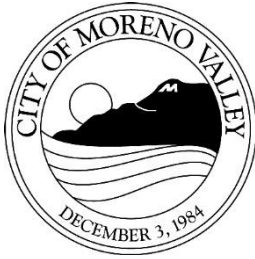
- J. The Chairperson or such other person who may be presiding at meetings of the Commission is responsible for the maintenance of order and decorum at all times. No person should speak who has not first been recognized by the Chair. All questions and remarks should be addressed to the Chair.
- K. Any Commissioner may move to require the Chairperson or person presiding at the meeting to enforce the rules, and the affirmative vote of a majority of the Commissioners present shall require him or her to so act.
- L. Commissioners shall accord the utmost courtesy to each other, to City employees, and to the public appearing before the Commission, and shall refrain at all times from rude and derogatory remarks, negative reflections as to integrity, abusive comments, and statements as to motive and personality.
- M. All written materials to be delivered to the Planning Commission concerning its official business shall be delivered to Planning Division staff for distribution. Staff is advised to distribute written materials concerning any matter on the agenda to the Planning Commission at least seven days (Thursday of the week before each regular meeting) before the date of the meeting when the matter is to be considered by

the Planning Commission. If it is not reasonably possible to distribute the material at least seven days before the meeting when the matter is to be considered, the material may be distributed at the earliest possible time with a copy also distributed at the meeting.

- N. During Planning Commission meetings, all written materials not already included in the materials which have been previously provided to the Planning Commission and which are offered for consideration by the Commission, shall be distributed to the Planning Commission. The Planning Commission shall consider such written materials as reasonably possible at the time of the meeting.
- O. Failure to comply with the strict provisions of these rules shall not necessarily invalidate any action taken by the Commission.

III. REVIEW AND AMENDMENTS PROCEDURE

- A. These Rules of Procedure shall be reviewed in July of each year by a subcommittee appointed by the Chair with the general agreement of the Commission. The review subcommittee shall present their recommendation for amending or not amending these rules.
- B. In addition, these Rules of Procedure may be amended at any meeting of the Planning Commission by a majority of the membership (four affirmative votes) of the Commission provided that notice of the proposed amendment is received by each Commissioner not less than five days prior to said meeting.



PLANNING COMMISSION

STAFF REPORT

Meeting Date: April 27, 2017

PLOT PLAN FOR AN EXTERIOR AND INTERIOR REMODEL AND ADDITION OF 791 SQUARE FEET TO AN EXISTING BUILDING AT 14920 PERRIS BOULEVARD FOR A TOTAL OF 24,902 SQUARE FEET TO ACCOMMODATE 15 NEW TENANT SPACES WITHIN AN EXISTING SHOPPING CENTER

Case: PEN16-0161

Applicant: Yaolong Chen

Owner: Food Grill INV

Representative: Yaolong Chen

Location: 14920 Perris Blvd

Case Planner: Sergio Gutierrez

Council District: 3

PROJECT DESCRIPTION

Project

The applicant, Yaolong Chen representing property owner, Food Grill Investments, is requesting approval of a Plot Plan application (PEN16-0161) for the interior and exterior remodeling of an existing underutilized single-tenant commercial building into a multi-tenant building that can accommodate 15 tenants. The improvements also include the addition of 791 square foot to the existing 23,911 square foot building increasing it to a total of 24,902 square feet.

The proposed commercial building modifications include an interior building remodel to accommodate 15 tenants, exterior façade improvements, relocation of an existing trash

enclosure, and replacement of the existing loading dock with parking for tenants located on the east side (rear) of the building. The remodeled multi-tenant building is proposed to accommodate up to four restaurants, three retail and eight office/retail tenant spaces. The project introduces front facing store fronts on both the north and east sides of the building.

The tenant spaces located to the west of the site are proposed to include four restaurant and three retail spaces. Tenant spaces located north of the site are proposed to include three office/retail spaces. The remaining five tenant spaces fronting to the east are proposed to be retail/office spaces. The applicant has indicated that one future tenant may include a buffet within one of the restaurant spaces. The applicant suggested that uses on the northerly and easterly sides of the building would likely include office uses, service related uses, and a potential online retail business with storage.

There is an existing recycling center located and operating on the east side (rear) of the building within the existing loading dock. This use is not a part of the proposed project and requires separate permitting. If the use intends to continue to operate after the proposed remodeling, the recycling business would need to be relocated within the shopping center with the appropriate separate review and approval through the City.

Compatibility with the Surrounding Land Use

Early discussions with the applicant during the project review focused on compatibility of the proposed design with the surrounding residential uses to the north and east. Although the footprint of the remodeled building would remain in generally the same configuration as the existing building, the site plan establishes tenant spaces with entrances on both the north and the east sides of the building. An existing mobile home park is located immediately north of the shopping center. The four closest mobile home units are located approximately 100 feet from the front facing northerly tenant spaces. A traditional single-family detached neighborhood is located immediately east of the shopping center. The three closest single family homes have rear yards that are located immediately east of the wall separating the homes from the shopping center, particularly the proposed front facing east side tenant spaces.

The proposed front facing tenant spaces located on the east and north sides of the building raise potential questions with regard to public safety because visibility to these tenant spaces from the shopping center is limited. The introduction of increased activity resulting from new office and retail activity can have a positive benefit on localized surveillance of the area; however, it raises concerns for general public safety because of the limited visibility of these rear areas from any adjacent street the main shopping center parking area. Key considerations to enhance security and minimized disruption to the adjacent residential areas are discussed below:

- A. Breezeway Door - The existing metal gate between the remodeled building and an ice cream shop to the west will be removed to allow for access between the front facing westerly tenant spaces and the tenant spaces on the north and east.

- B. Hours of Operation - The applicant proposes that each business would establish their own hours of operation as allowed by the City's Municipal Code. There are certain uses for which hours of operation are specified in the Municipal Code, including arcades, outdoor dining, and spa facilities. In order to minimize potential concerns with proximity to residential a condition of approval has been included that would limit business hours to no later than 10:00 p.m., unless an earlier closing time is identified in the Municipal Code.
- C. Lighting - Additional parking lot lighting including wall fixtures and light standards along the easterly and northerly areas of the building will be required to satisfy the City's Municipal Code requirements. The lighting must be consistent with the standards identified in the Municipal Code which would require a minimum coverage of one foot-candle of light with a maximum of eight foot-candles on the parking or walkway surface. All new lighting will be required to meet the City's lighting standards. This includes a requirement that lighting shall not exceed one-quarter foot-candle minimum maintained lighting measured from within five feet of any property line. In addition, the lighting must also be designed and installed to be fully shielded to reduce glare and spillover lighting towards the adjacent residential uses.

Consistent with the City's Municipal Code, the outdoor lighting system will be required to be turned off or reduced by at least fifty percent beginning at 10 p.m. or the close of business, whichever is later. In an effort to minimize potential for spillover lighting, a condition of approval has been included with the project that would limit business hours to no later than 10:00 p.m. to ensure that lighting along the north and east properties are reduced at the earliest possible hour.

- D. Gate separating the Commercial Center from the Mobile Home Park - There is a re-curved metal gate located on the northerly side of the property that appears to have been installed in the past to allow for direct pedestrian access between the mobile-home park and shopping center. This gate is currently double locked on both the mobile home side of the property and the commercial property side. A condition of approval has been included to ensure that this door is kept locked.

Other Considerations

During at least two site visits, there were signs of illegal dumping activity associated with the trash bins on the east and north sides of the building. The increased activity of occupied storefronts on the north and east sides of the building could have a positive effect to reduce illegal dumping in trash bins in the area.

Along the easterly drive aisle to the south of the building in proximity to Cardenas Market, delivery trucks at times are parking at or near the adjacent tenant loading dock area. This has been identified as a concern that may limit vehicular access to the future tenant spaces and potential customers along the easterly side of the building. Planning staff has recommended that the property owner discuss this issue with the owner of the southerly parcel.

The property owner is aware of the concerns and has taken the safety and operational concerns and comments into consideration. The owner has provided strategies to ensure public safety by adding security cameras and lighting to the exterior walls, providing double entrance doors and a significant amount of windows to each tenant storefront to increase pedestrian visibility for tenant spaces on the east and north of the building.

A successful remodeling of a portion of the front façade of the main shopping center building could serve as a catalyst to help continued revitalization of the shopping center.

Site

The project site is within an existing shopping center located adjacent to Cardenas Market on the south and a small ice cream parlor on the west. Businesses within the existing shopping consists of a variety of commercial uses, including a convenience store, a grocery store, a nail salon, restaurants and other retail services located at the northwest corner of Perris Boulevard and the southeast corner of John F. Kennedy Drive. The site is located with the Neighborhood Commercial (NC) Zone, which is intended to satisfy the daily shopping needs of Moreno Valley residents by providing construction of conveniently located neighborhood centers which provide limited retail commercial services.

Surrounding Area

The project site is located near commercial, office and residential uses. Properties to the north include a mobile home park and an apartment complex. Properties to the south of the shopping center, across from John F. Kennedy Drive, include a gas station and an apartment complex. Properties to the east and west include single family residential uses.

Access/Parking

The project will be accessed from five existing driveways, two from Perris Boulevard along the site's westerly boundary, and three from John F. Kennedy Drive along the site's southerly boundary. The two driveways located closest to the property line will allow the most direct access to the tenant spaces located on the east and north sides of the proposed remodeled building.

The project site will be accessible from the main parking area located on the west side (front) of the building. The existing gate, located on the northwesterly side of the building, will be removed to allow pedestrian access from the main parking area to proposed tenant spaces located on the east and north sides of the building.

The proposed project is located within an existing shopping center. A parking analysis was completed as a part of the project review process. Based on the

square footage of the proposed uses within the project site (restaurant, office and retail uses) and the City's parking requirements, 103 parking spaces are required. The site provides 114 automobile parking spaces in which 109 will be standard parking spaces and five will be disabled accessible parking spaces, which meets the minimum parking requirements for the proposed multi-tenant commercial building. Of the five parking spaces provided, two spaces will be van accessible spaces in which one space will be located on the west of the property, project site's main entrance, and one will be located on the east. As designed, there is adequate parking in both the front and rear parking lots. A reciprocal access and parking agreement is in place for the entire shopping center.

Bicycle parking will be provided per the City's Municipal Code requirement of 5% of the parking spaces provided. Based on the provided parking spaces, 6 bicycle parking spaces will be needed. The site provides 3 U-shaped parking stalls that meet the Municipal Code requirements.

Design/Landscaping

The architectural design of the proposed multi-tenant building includes parapets, towers and vertical detailing as decorative feature finishes to improve the aesthetics of the shopping center and to break up the massing of the building (Attachment 9). The height of the building will be increased from 28 feet 2 inches to 33 feet 9 inches to incorporate towers and higher parapets to improve the overall appearance of the commercial building and also to screen roof top equipment from public view as required by the Municipal Code (Section 9.08.030 - Accessory structures). Building materials for the exterior façade will remain as stucco. The color scheme includes earth tone colors of cream, deep red, grey, off white and tan.

Landscape Finger Planters will be incorporated into the site on the east of the property to comply with the City's parking requirements. Landscaping will be designed per the Municipal Code Landscape Requirements section 9.17 with enhanced planting schemes for the parking areas along the east and north side of the proposed remodeled building. The landscaping design requires a drought tolerant palette to reduce water usage meeting the City's requirements and Eastern Municipal Water District's water usage/budget requirements.

REVIEW PROCESS

The applicant submitted the project proposal on December 16, 2016. Based on the scope of the project, it was determined that the project was a Major Development Review requiring review by the Planning Commission.

The project site plan, floor plans and building elevations were reviewed by the Project Review Staff Committee on January 11, 2017. Based on comments from staff, minor revisions were requested on the site plan and elevations. An additional follow up meeting was held with City Departments including Land

Development and Transportation Engineering along with the applicant and property owner on February 22, 2017 to discuss comments made in the Pre-PRSC meeting held on February 14, 2017. After revisions to the site plan and clarification from the property owner, all comments have been addressed and conditions of approval have been provided (Exhibit A to Attachment).

ENVIRONMENTAL

The project site is located within an existing commercial shopping center. As designed and conditioned, this project will not have a significant effect on the environment. The project qualifies as a Class 1 Categorical Exemption under CEQA Guidelines Section 15301 for existing facilities. The addition of 791 square feet of building area is within the limits for expansion of an existing use as described in Section 15301.

NOTIFICATION

In accordance with Section 9.02.200 of the City’s Municipal Code, public hearing notices were sent to all property owners of record within 300’ of the project site (Attachment 3). In addition, the public hearing notice for the project was published in the Press Enterprise newspaper on April 15, 2017.

REVIEW AGENCY COMMENTS

Staff received the following responses to the Project Review Staff Committee transmittal, which was sent to all potentially affected reviewing agencies.

<u>Agency</u>	<u>Response Date</u>	<u>Comments</u>
Airport Land Use Commission	February 9, 2017	Proposal consistent with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to conditions.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-21, and thereby:

1. **CERTIFY** that this item is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 for Existing Facilities; and
2. **APPROVE** PEN16-0161 Plot Plan subject to the attached Conditions of Approval included as Exhibit A.

Prepared by:

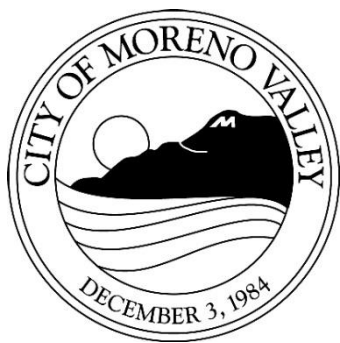
Approved by:

Erica Tadeo
Administrative Assistant

Allen Brock
Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. 300 Foot Radius Map
3. Resolution 2017-21
4. Exhibit A to PC Resolution - COA
5. Aerial Photograph
6. Zoning Map
7. Site Photos
8. Site Plan
9. Floor Plan
10. Colored Elevations



This may affect your property

Notice of PUBLIC HEARING

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

Project: PEN16-0161 Plot Plan
 Applicant: Yaolong Chen
 Owner: Food Grill INV
 Representative: Yaolong Chen
 A.P. No(s): 484-253-032
 Location: 14920 Perris Boulevard (northeasterly of the intersection of Perris Boulevard and John F. Kennedy Drive)

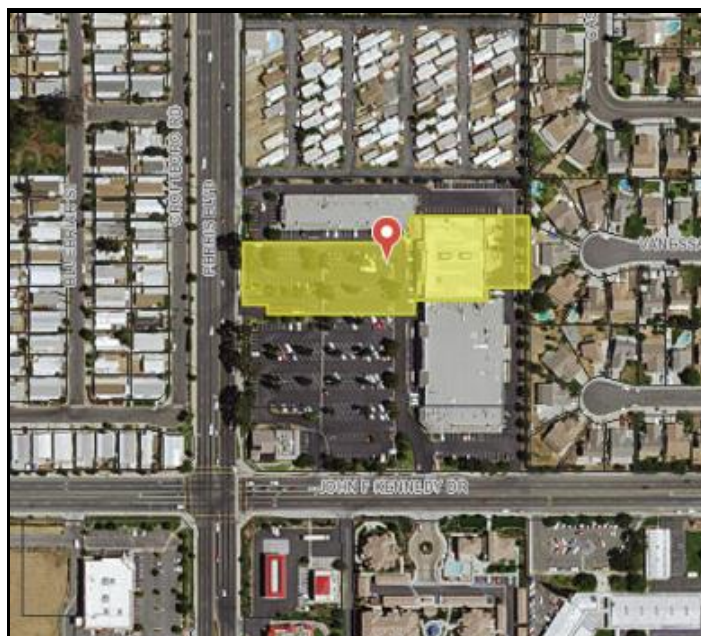
Proposal: The proposal is for an exterior and interior remodel and addition of 791 square feet to an existing 23,911 square foot single tenant building for a total of 24,902 square feet within an existing shopping center. The remodeled multi-tenant building would accommodate 15 tenant spaces. The modifications to the building include façade improvements such as decorative towers, vertical features, a new proposed color scheme, and parking improvements. The project site is in a Neighborhood Commercial (NC) zone.

Council District: 4

The project qualifies as a Class 1 Categorical Exemption under CEQA Guidelines Section 15301 for existing facilities, because the addition of 791 square feet of building area results in a negligible expansion of the existing use.

A public hearing before the Planning Commission has been scheduled for the proposed project. Any person interested in commenting on the proposal and recommended environmental determination may speak at the hearing or provide written testimony at or prior to the hearing. The project application, supporting plans and environmental documents may be inspected at the Community Development Department at 14177 Frederick Street, Moreno Valley, California during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m., Friday), or you may telephone (951) 413-3206 for further information.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal. If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.



LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
 14177 Frederick Street
 Moreno Valley, Calif. 92553

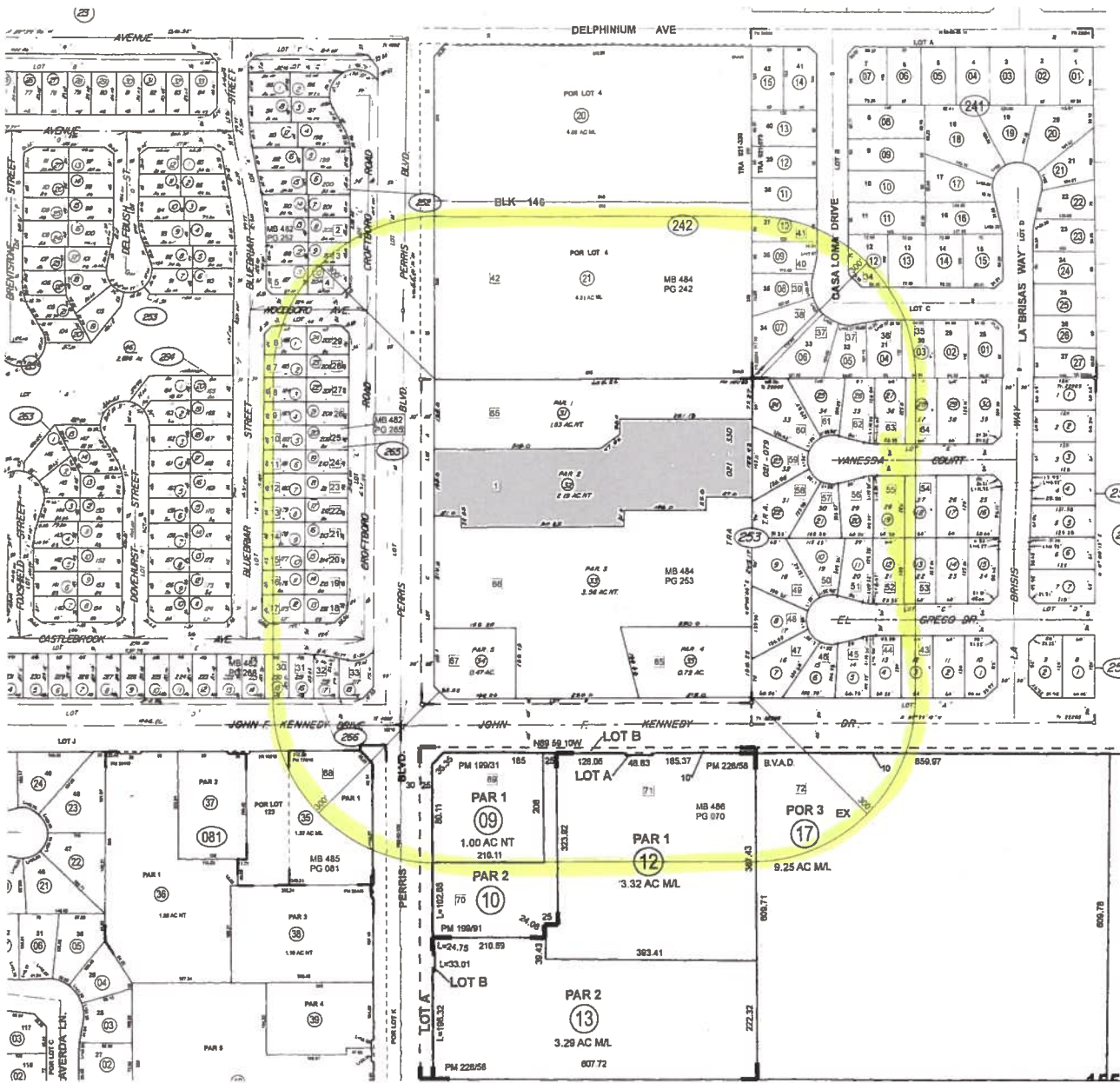
DATE AND TIME: April 27, 2017 at 7:00 p.m.

CONTACT PLANNER: Sergio Gutierrez

PHONE: (951) 413-3234

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 4 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Attachment: Public Hearing Notice (2612 : PEN16-0161 Plot Plan - Food Grill Investments)



TITLE: OWNERSHIP MAP

ADDRESS:
14920 PERRIS BLVD
MORENO VALLEY CA 92553-7152

PROPERTY OWNER(S):
GRILL FOOD INV/LIAO HSIU YUAN
18800 AMAR RD #B11
WALNUT CA 91789-7106

APPLICANT(S):
TOP-ARC GROUP
11219 SPRINGWOOD ST
SOUTH EL MONTE CA 91733

LEGAL DESCRIPTION:
2.19 ACRES NET IN PAR 2 PM 147/065 PM 22829

APN:
484-253-032

ACREAGE: ± 2.19 (95,396 SQFT)

THOMAS GUIDE: RIVERSIDE COUNTY
PAGE/GRID: 717/G7

RADIUS: 300' DATE: APRIL 10, 2017

SCALE: 1" = 200' NORTH: ↑

PROJECT:	0117- 107	DRAWN:	JT
SHEET:	1 OF 1	REVISIONS:	
INDEX:	TITLE:	DATE:	BY:
1	OWNERSHIP MAP		

FOR DEPARTMENT USE

CASE NO. _____

RECEIVED BY: _____

DATE: _____

SZETO + ASSOCIATES
LAND USE ENTITLEMENT CONSULTANTS

CONDITIONAL USE • VARIANCE • SUDIVISION CONSULTING
ZONING • LICENSING • LAND USE PLANNING • RADIUS MAPS

879 W ASHITA RD
MONTEBELLO CA 90640

TEL: (626) 512-5050
FAX: (323) 246-4007
stanleyszeto@abcglobal.net

RESOLUTION NO. 2017-21

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING PEN16-0161 PLOT PLAN FOR AN EXTERIOR AND INTERIOR REMODEL AND ADDITION OF 791 SQUARE FEET TO AN EXISTING BUILDING FOR A TOTAL OF 24,902 SQUARE FEET WITHIN AN EXISTING SHOPPING CENTER LOCATED AT 14920 PERRIS BOULEVARD ASSESSOR PARCEL NUMBER 484-253-032

WHEREAS, Yaolong Chen has filed an application for the approval of PEN16-0161 for remodeling and repurposing of a multi-tenant commercial building at 14920 Perris Boulevard as described in the title of this Resolution; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, planning staff completed an independent review of the project to ensure consistency with the California Environmental Quality Act (CEQA) and based on a thorough analysis determined that the project will not have a significant effect on the environment. The project qualifies as a Class 1 Categorical Exemption under CEQA Guidelines Section 15301 for existing facilities, and the addition of 791 square feet of building area is within the limits for expansion of an existing use as described in Section 15301; and

WHEREAS, upon completion of a thorough development review process the project was appropriately agendaized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, the public hearing notice for this project was published in the local newspaper on April 15, 2017. Public notice was sent to all property owners within 300 feet of the project site on April 17, 2017, and the public notice was posted at the site on April 17, 2017; and

WHEREAS, on April 27, 2017, the Planning Commission held a public hearing to consider the application; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission of the City of Moreno Valley as follows:

- A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.
- B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on April 27, 2017 including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

- 1. **Conformance with General Plan Policies** – The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

FACT: The project proposes to remodel a single tenant building into a multi-tenant commercial building to accommodate 15 single tenants in an existing commercial shopping center. The General Plan land use designation for the site is Commercial.

The project is consistent with General Plan policies and objectives. Chapter 9 General Plan Objective 2.4 states the City shall provide commercial areas within the City that are conveniently located, efficient, attractive, and have safe and easy pedestrian and vehicular circulation in order to serve the needs of the residents. The proposed project within the existing shopping center is consistent with Objective 2.4 along with General Plan Policy 2.4.1 that states areas designated Commercial provide property for business purposes including but not limited to retail stores, restaurants, banks, hotels, professional offices and personal services with zoning regulations to identify particular uses permitted.

- 2. **Conformance with Zoning Regulations** – The proposed uses complies with all applicable zoning and other regulations.

FACT: The Neighborhood Commercial (NC) zone allows for offices, restaurants and retail uses.

The primary purpose of the Neighborhood Commercial (NC) district is to satisfy the daily shopping needs of Moreno Valley residents by providing construction of conveniently located neighborhood

centers which provide limited retail commercial services in which centers must be compatible with the surrounding residential communities. As designed and conditioned, the proposed uses will comply with all applicable Municipal Code provisions and will not negatively impact the surrounding commercial center and neighborhood.

3. **Health, Safety and Welfare** – The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: As designed and conditioned, the proposed project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity. Although visibility to the storefronts on the east and north sides of the building is limited from the balance of the shopping center, conditions of approval for the project have been developed to ensure that there is adequate lighting, and improved pedestrian access to the northerly and easterly sides of the building. The project will be required to satisfy the City’s lighting standards, and will not result in spillover lighting to the properties to the north and east.

The increased commercial activity on the north and east sides of the building will help activate these areas that could reduce the amount of dumping activity, and provide better surveillance of the areas. A successful remodeling of the building would be an asset to help revitalize the shopping center.

The proposed project was sent to the Airport Land Use Commission where the project was evaluated due to the proximity to the March Air Reserve Base, the project was reviewed administratively by the County of Riverside Airport Land Use Commission on February 9, 2017, and was found to be consistent with the 2014 Riverside County Airport Land Use Plan subject to conditions of approval.

The project site is located within an existing commercial shopping center. As designed and conditioned, this project will not have a significant effect on the environment. The project qualifies as a Class 1 Categorical Exemption under CEQA Guidelines Section 15301 for existing facilities. The addition of 791 square feet of building area is within the limits for expansion of an existing use identified in Section 15301.

4. **Location, Design and Operation** – The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACT: The project site is within an existing shopping center, located adjacent to Cardenas Market on the south and a small ice cream parlor on the west. The project site is located near commercial, office and residential uses. Properties to the north include a mobile home park and an apartment complex. Properties to the south of the shopping center, across from John F. Kennedy Drive, include a gas station and an apartment complex. Properties to the east include single family residential uses.

The project, as designed and conditioned conforms to all development standards of the Neighborhood Commercial zoning and the design guidelines for commercial development in the City's Municipal Code and City Landscape Standards.

The proposed multi-tenant commercial building includes architectural elements such as parapets, towers and vertical detailing to be used as decorative feature finishes to improve the aesthetics of the shopping center and to break up the massing of the building. Building materials for the exterior facade will remain as stucco in which the parapet will be also covered by stucco. The color scheme includes earth tone colors of cream, deep red, tan, grey, white and off white.

Overall, the location, design and operation of the proposed uses are compatible with existing and planned land uses in the vicinity, and will not negatively impact surrounding properties.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PEN16-0161 incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d)(1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-21 and thereby:

1. **CERTIFIES** that this item is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 for Existing Facilities; and,
2. **APPROVES** PEN16-0161 Plot Plan subject to the attached Conditions of Approval included as Exhibit A; and,

APPROVED this 27th day of April, 2017.

Brian Lowell
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Attached: Exhibit A: Conditions of Approval

Attachment: Resolution 2017-21 [Revision 3] (2612 : PEN16-0161 Plot Plan - Food Grill Investments)

EXHIBIT A

**CITY OF MORENO VALLEY
PLANNING DIVISION
CONDITIONS OF APPROVAL FOR PEN16-0161
PLOT PLAN FOR A MULTI-TENANT COMMERCIAL BUILDING LOCATED AT 14920
PERRIS BOULEVARD
APN: 484-253-032**

**APPROVAL DATE:
EXPIRATION DATE:**

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

- P1. This approval is for an exterior and interior remodel and addition of 791 square feet to an existing 23,911 square foot single tenant building for a total of 24,902 square feet within an existing shopping center.
- P2. This approval shall comply with all applicable requirements of the City of Moreno Valley Municipal Code.
- P3. Additional changes or modifications to this use shall require the submittal of a separate application to be reviewed and approved under a separate permit.
- P4. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris by the developer or developer's successor-in-interest. (MC 9.02.030)
- P5. All site plans, grading plans, landscape and irrigation plans shall be coordinated for consistency with this approval.
- P6. Signage is not included with this approval. Any signs proposed for this development shall be designed in conformance with the sign provisions of the Municipal Code or approved sign program, if applicable, and shall require separate application and approval by the Community Development Department - Planning Division. (MC 9.12.020)
- P7. A drought tolerant, low water using landscape palette shall be utilized throughout the project to the extent feasible.
- P8. Bicycle parking stalls shall be installed as shown on the approved site plan.
- P9. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 2**

of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the City Planning Official. (MC 9.14.020)

- P10. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. Use means the beginning of substantial construction contemplated by this approval within the three year period, which is thereafter pursued to completion, or the beginning of substantial utilization contemplated by this approval. (MC 9.02.230)

Special Conditions

- P10. The hours of operation for businesses shall be between the hours of 5:00 a.m. and 10:00 p.m. unless an earlier closing time is specified in the Municipal Code.
- P11. The two existing trees to be removed, located on the east of the property adjacent to the existing loading dock, shall be replaced on the east and/or north planters of the commercial center at a three to one ratio, with minimum twenty-four (24) inch box size trees of the same species, or a minimum thirty-six (36) inch box for a one to one replacement. (MC 9.17.030)
- P12. The parking lot lighting shall be maintained in good repair and shall comply with the Municipal Code lighting standards of a minimum of one (1) foot candle and a maximum of eight (8) foot candle. Additional parking lot lighting standards are expected to be needed to provide adequate lighting to satisfy the City's lighting standards.
- P13. The existing metal gate, located along the walkway between the remodeled building and an ice cream shop, shall be removed as shown on the approved site plan. A copy of the agreement, between the property owner and the adjacent property owners and/or project management of the Commercial Center, to allow removal of the metal gate shall be provided to the Planning Department.
- P14. The re-curved metal gate separating the Commercial Center from the Mobile Home Park located on the north side of the property shall remain locked at all times.
- P15. Parking improvements such as parking restriping, landscape finger planters and landscape finger end planters shall be installed as shown on the approved site plan.
- P16. The existing trash enclosure, located on the northeasterly corner of the building, shall be relocated to the southeasterly corner of the building as shown on the

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 3**

approved site plan. The trash enclosure will be required to meet current City standards (MC9.08.150).

- a. Provide a minimum planter dimension of three feet on three sides of the enclosure walls, and accommodate climbing vines and screening shrubs within the planter area;
- b. Be constructed to include a solid roof color;
- c. Be designed using material and colors aesthetically compatible with the project;
- d. Provide elevations with dimensions of the trash enclosure.

PRIOR TO BUILDING PERMIT

- P15. Prior to obtaining any permit for the project, a landscape plan shall be reviewed and approved by the Planning Division. Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk. City Landscape requirements are detailed in the City’s Municipal Code Chapter 9.17 Landscape Standards. Landscape shall include drought tolerant trees, shrubs and groundcover species.
- P16. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City’s Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)
- P17. (BP) Prior to issuance of building permits, the develop or developer’s successor-in-interest shall pay all applicable impact fees, including but not limited to Multi-Species Habitat Conservation Plan (MSHCP) mitigation fees and the City’s adopted Development Impact Fees. (Ord)
- P18. Prior to issuance of a building final, the applicant shall contact the Planning Division for a final inspection.

PRIOR TO CERTIFICATE OF OCCUPANCY

- P20. (BP/CO) Prior to the issuance of Certificated of Occupancy or building final, installed landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. All on-site and

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 4**

landscaping areas shall be installed in accordance with the City's Landscape Standards and all on site clean-up shall be completed. (MC 9.03.040)

BUILDING AND SAFETY DIVISION

- B1. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.
- B2. Contact the Building Safety Division for permit application submittal requirements.
- B3. Any construction within the city shall only be as follows: Monday through Friday (except for holidays which occur on weekdays), 7 a.m. to 7 p.m.; weekends and holidays (as observed by the city and described in the Moreno Valley Municipal Code Chapter 2.55), 8 a.m. to 4 p.m., unless written approval is first obtained from the Building Official or City Engineer.
- B4. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.
- B5. The proposed development shall be subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.
- B6. The proposed project will be subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.
- B7. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.
- B8. All remodeled structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

Economic Development Division

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 5**

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center (“ERC”).

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a “First Source” approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side. The numerals shall be a minimum of six (6) inches in height for buildings and four (4) inches in height for suite identification on a contrasting background. Suite identification shall be provided on the rear doors also. (CFC 505.1, MVMC 8.36.060[I])

AIRPORT LAND USE COMMISSION (ALUC)

1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

- 2.
- 3.

The following uses/activities are not included in the proposed project and shall be prohibited at this site.

- (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport,

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 6**

- other than an FAA-approved navigational signal light or visual approach slope indicator.
- (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
 - (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
3. The landowner shall provide the attached disclosure notice to all potential purchasers of the property and tenants of the building.
 4. Any new detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

- F1. Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side. The numerals shall be a minimum of six (6) inches in height for buildings and four (4) inches in height for suite identification on a contrasting background. Suite identification shall be provided on the rear doors also. (CFC 505.1, MVMC 8.36.060[I])
- F2. Fire protection systems such as automatic fire sprinkler systems and fire alarm systems shall be maintained operational. Periodic inspection, testing and maintenance is required for such systems. Reports of inspections and tests shall be made available to the Fire Department upon request. Plans shall be

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 7**

- submitted to the Fire Prevention Bureau for approval prior to fire protection system modifications.
- F3. Prior to construction, all locations where structures are to be built shall have an approved Fire Department access based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.4)
- F4. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)
- F5. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3) a - After the local water company signs the plans, the originals shall be presented to the Fire Prevention Bureau for signatures. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.
- F6. Final fire and life safety conditions will be addressed when the Fire Prevention Bureau reviews building plans. These conditions will be based on occupancy, use, California Building Code (CBC), California Fire Code (CFC), and related codes, which are in effect at the time of building plan submittal.
- F7. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)
- F8. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty-four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height. as approved by the Fire Prevention Bureau and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])
- F9. be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)
- F10. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 8**

with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6" x 4" x 2 ½" x 2 ½") (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

- F11. During phased construction, dead end roadways and streets which have not been completed shall have a turn-around capable of accommodating fire apparatus. (CFC 503.1 and 503.2.5)
- F12. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering said waterflow for 2 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)
- F13. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall: a. Be signed by a registered civil engineer or a certified fire protection engineer; b. Contain a Fire Prevention Bureau approval signature block; and c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

PUBLIC WORKS DEPARTMENT**LAND DEVELOPMENT DIVISION**

The following are the Public Works Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Land Development Division.

General Conditions

- LD1. A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.
- LD2. All applicable inspection fees shall be paid.

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 9**

- LD3. All work performed within public right-of-way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]
- LD4. The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on mylar sheets and included in any Grading and Street Improvement plans.
- LD5. The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]
- LD6. The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:
- a) Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.
 - b) (b) Observance of working hours as stipulated on permits issued by the Land Development Division.
 - c) (c) The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.
 - d) (d) All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations. Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.
- LD7. The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 10**

LD8. The plot plan shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the map or plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

PRIOR TO GRADING PERMIT

LD9. A digital (pdf) copy of all approved grading plans shall be submitted to the Land Development Division.

LD10. Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD11. Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD12. The developer shall pay all applicable inspection fees.

LD13. Resolution of all drainage issues shall be as approved by the City Engineer.

LD14. The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

- a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.
- b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.
- c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.
- d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review, if submitting a grading plan or improvement plans. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD15. Any grading/construction changes to the site, a Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 11**

LD16. Where a grading or improvement plan is required, the developer shall pay all remaining plan check fees.

LD17. The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. The ADA ramps at the two driveways fronting Perris shall be updated to ADA standard compliance. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless otherwise approved by the City Engineer.

PRIOR TO OCCUPANCY

LD18. All outstanding fees shall be paid.

LD19. All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD20. The developer is required to bring any existing sidewalk adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing sidewalks, all sidewalks in that intersection including the ramp shall be retrofitted to comply with current ADA requirements, unless otherwise approved by the City Engineer.

SPECIAL DISTRICTS DIVISION**General Conditions**

SD-1 Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division (specialdistricts@moval.org). Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

SD-2 This project has been identified to potentially be included in the formation of a Map Act Area of Benefit Special District for the construction of major

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 12**

thoroughfares and/or freeway improvements. The property owner(s) shall participate in such District and pay any special tax, assessment, or fee levied upon the project property for such District. At the time of the public hearing to consider formation of the district, the property owner(s) will not protest the formation, but will retain the right to object any eventual assessment that is not equitable should the financial burden of the assessment not be reasonably proportionate to the benefit the affected property obtains from the improvements to be installed. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting an application for the first building permit to determine whether the development will be subjected to this condition. If subject to the condition, the special election requires a 90 day process in compliance with the provisions of Article 13C of the California Constitution. (Street & Highway Code, GP Objective 2.14.2, MC 9.14.100).

- SD-3 This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.
- a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
 - b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

- SD-4 This project is conditioned to provide a funding source for the following special financing program(s):

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 13**

- a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

- i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
- ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-5 Commercial (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

EXHIBIT A**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 14**

- SD-5 This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)
- SD-6 The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.
- SD-7 Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.
- SD-8 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.
- SD-9 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

POLICE DEPARTMENT**Standard Conditions**

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 15**

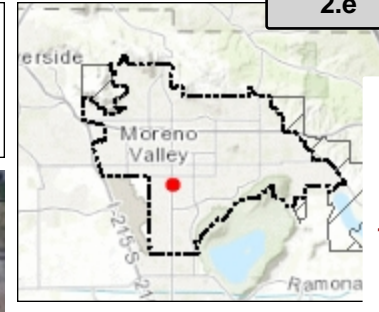
- PD1. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard as determined by the Public Works Department. If security fencing is required, it shall remain in place until the project is completed or the above conditions no longer exist. (DC 9.08.080)
- PD2. (GP) Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:
- a. The name (if applicable) and address of the development.
 - b. The developer's name, address, and a 24-hour emergency telephone number. (DC 9.08.080)
- PD3. (CO) Prior to the issuance of a Certificate of Occupancy, an Emergency Contact Information Form for the project shall be completed at the permit counter of the Community Development Department - Building Division for routing to the Police Department. (DC 9.08.080)
- PD4. Addresses shall be in plain view, visible from the street and visible at night.
- PD5. All exterior doors in the rear and the front of the buildings shall display an address or suite number.
- PD6. All exterior doors shall have a vandal resistant light fixture installed above the door. The doors shall be illuminated with a minimum one foot candle illumination at ground level, evenly dispersed.
- PD7. The exterior of the building should have high-pressure sodium lights and/or metal halide lights installed and strategically placed throughout the exterior of the building. The parking lots should have adequate lighting to insure a safe environment for customers and or employees.
- PD8. Landscape ground cover should not exceed over 3 feet in height from in the parking lot.
- PD9. Bushes that are near the exterior of the building should not exceed 4 feet in height and should not be planted directly in front of the buildings or walkways.

EXHIBIT A

**CONDITIONS OF APPROVAL
PLOT PLAN (PEN16-0161)
PAGE 16**

- PD10. Trees, which exceed 20 feet in height, should provide at least 7 feet of visibility from the ground to the bottom of the canopy. This is so that patrons or employees can view the whole parking lot while parking their vehicles in the parking lot.
- PD11. Cash registers shall be placed near the front entrance of the store.
- PD12. Window coverings shall comply with the City ordinance.
- PD13. No loitering signs shall be posted in plain view throughout the building.
- PD14. A monument address is to be located in front of the main entrance.
- PD15. Sufficient lighting is to be provided over all mailbox areas.
- PD16. Security cameras shall be provided inside the businesses and several cameras outside.
- PD17. Upon completion of construction, each building or business shall have an alarm system that is monitored by a designated private alarm company to notify the Moreno Valley Police Department of any intrusion.
- PD18. ABC approval(s) will be required for alcohol licenses in the area.

Aerial Photography PEN16-0161



Legend

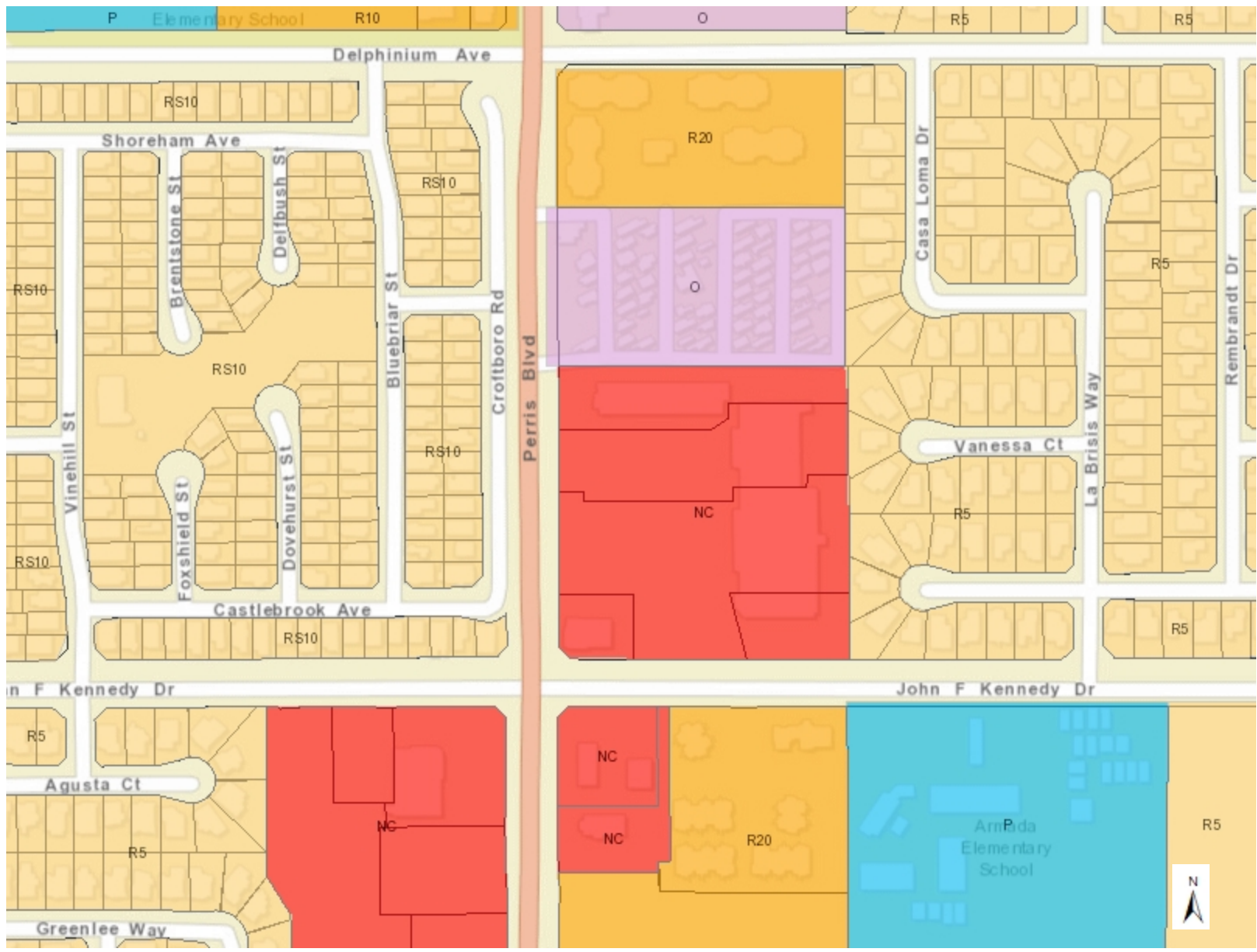
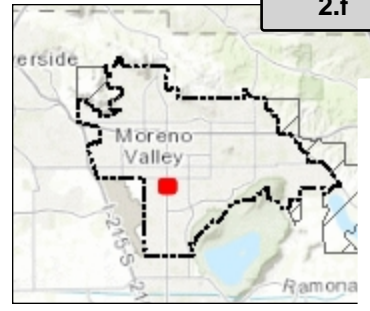
- Master Plan of Trails
- Bridge
 - Improved
 - Multiuse
 - Proposed
 - Regional
 - State
- Parcels
 City Boundary
 Sphere of Influence

315.5 0 157.74 315.5 Feet

DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map.

Notes

Zone: Neighborhood Commercial (NC)



Legend

Zoning

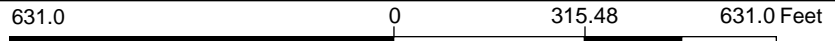
- Commercial
- Industrial/Business Park
- Public Facilities
- Office
- Planned Development
- Large Lot Residential
- Residential Agriculture 2 DU/AC
- Residential 2 DU/AC
- Suburban Residential
- Multi-family
- Open Space/Park

Master Plan of Trails

- Bridge
- Improved
- Multiuse
- Proposed
- Regional
- State

- Parcels
- City Boundary
- Sphere of Influence

Notes



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Attachment: Zoning Map (2612 : PEN16-0161 Plot Plan - Food Grill Investments)

Existing Site Conditions



Existing Front entrance-West of property



New 791 S.F. addition-Northwesterly of property



Existing metal gate-Northwesterly of property



Existing re curved gate-Northwesterly of property



Existing trash enclosure-Northwesterly of property



Existing conditions (north of property)-looking west



Existing conditions (east of property) -looking south



Existing conditions (east of property)-

PLAZA IMPROVEMENT

14920 PERRIS BLVD, MORENO VALLEY, CA 92553

APPLICABLE CODES:
 2013 CALIFORNIA BUILDING CODE (CBC)
 2013 CALIFORNIA RESIDENTIAL BUILDING CODE (CRC)
 2013 CALIFORNIA MECHANICAL CODE (CMC)
 2013 CALIFORNIA PLUMBING CODE (CPC)
 2013 CALIFORNIA ELECTRICAL CODE (CEC)
 2013 CALIFORNIA FIRE CODE (CFC)
 2013 CALIFORNIA ENERGY CODE
 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
 2014 CALIFORNIA LACO BUILDING CODE (LBC)
 2014 CALIFORNIA LACO RESIDENTIAL CODE (LRC)
 2014 CALIFORNIA LACO ELECTRICAL CODE (LNEC)
 2014 CALIFORNIA LACO MECHANICAL CODE (LUMC)
 2014 CALIFORNIA LACO PLUMBING CODE (LUPC)

CONTACT INFO:
 PROPERTY OWNER: GRILL FOOD INVESTMENT INC.
 ADDRESS: 12666 CENTRAL AVE, CHINO, CA 91710
 P: 626-452-1843 E: RTSENGWORK@GMAIL.COM
 DESIGNER: YAOLONG CHEN
 ADDRESS: 11219 SPRINGWOOD ST, SOUTH EL MONTE, CA 91733
 P: 626-226-3939 E: YAOLONG0221@YAHOO.COM

PAGE INDEX:
 A1-SITE PLAN & DATA
 A2-EXISTING FLOOR PLAN & DEMO PLAN
 A3-NEW FLOOR PLAN
 A4-EXISTING & NEW ROOF PLAN, SECTION
 A5-EXISTING ELEVATION
 A6-NEW ELEVATION

PROJECT DATA:
 PROJECT ADDRESS: 14920 PERRIS BLVD, MORENO VALLEY, CA 92553
 OCCUPANCY ZONING: NC
 A.P.N. #: 484-253-032
 TRACT # 0426.05, BLOCK 253, LOT 032
 TYPE OF CONSTRUCTION: VA
 STORY: 1 STORY
 FIRE SPRINKLER: YES

DESCRIPTION: PLAZA REMODEL
 -NEW ADDITION
 -NEW AREA: 791 S.F.
 -INTERIOR TENANT IMPROVEMENT: 15 NEW UNITS
 -4 RESTAURANTS
 -3 RETAIL SPACES
 -8 RETAIL OFFICE SPACE

GROSS LOT AREA: 95,425 S.F.=2.19 ACRE
 EXISTING BUILDING: 23,911 S.F.
 PROPOSED BUILDING: (E)33,911+(N)791=24,702 S.F.
 NEW LOT COVERAGE =24,702/95,425=25.89%
 LANDSCAPE AREA: 6,762 S.F. = 9.2%

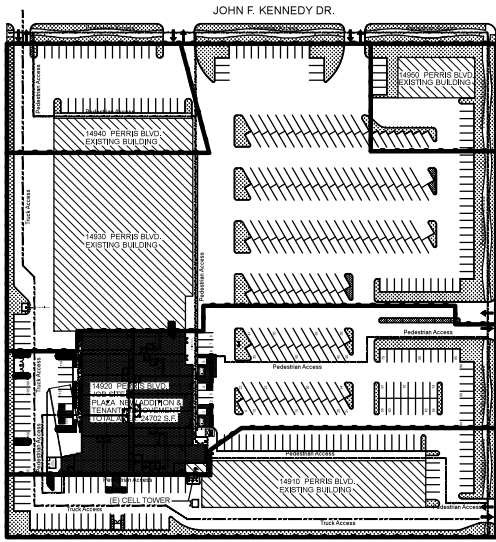
POLICE DEPARTMENT NOTE:
 1. Address numbers should be placed at multiple locations on the building and be illuminated.
 2. Rooftop addressing of all building.
 3. Provide security cameras inside the businesses and several cameras outside.
 4. All exterior doors shall have a vandal resistant light fixture installed above the door. The doors shall be illuminated with a min. 1' candle illumination at ground level evenly dispersed.
 5. Upon completion of construction, each building or business shall have an alarm system that is monitored by a designated private alarm company to notify the Moreno Valley Police Department of any intrusion.
 6. ABC approval(s) will be required for alcohol licenses in the area.

BUILDING BREAKDOWN
 (N) RESTAURANT 1-A1: 2345 S.F.
 (N) RESTAURANT 2-A2: 1567 S.F.
 (N) RETAIL SPACE 1-A3: 1567 S.F.
 (N) RETAIL SPACE 2-A4: 1567 S.F.
 (N) RETAIL SPACE 3-A5: 1567 S.F.
 (N) RESTAURANT 3-A6: 1884 S.F.
 (N) RESTAURANT 4-A7: 1845 S.F.
 (N) OFFICE 1-B1: 1455 S.F.
 (N) OFFICE 2-B2: 1480 S.F.
 (N) OFFICE 3-B3: 335 S.F.
 (N) OFFICE 4-B4: 1479 S.F.
 (N) OFFICE 5-B5: 1478 S.F.
 (N) OFFICE 6-B6: 1478 S.F.
 (N) OFFICE 7-B7: 1482 S.F.
 (N) OFFICE 8-B8: 1511 S.F.
 (N) MECHANICAL ROOM: 149 S.F.
 (N) STORAGE ROOM: 99 S.F.
 (N) HALLWAY: 1351 S.F.
 (E) MECHANICAL ROOM: 184 S.F.
 TOTAL AREA: 24702 S.F.

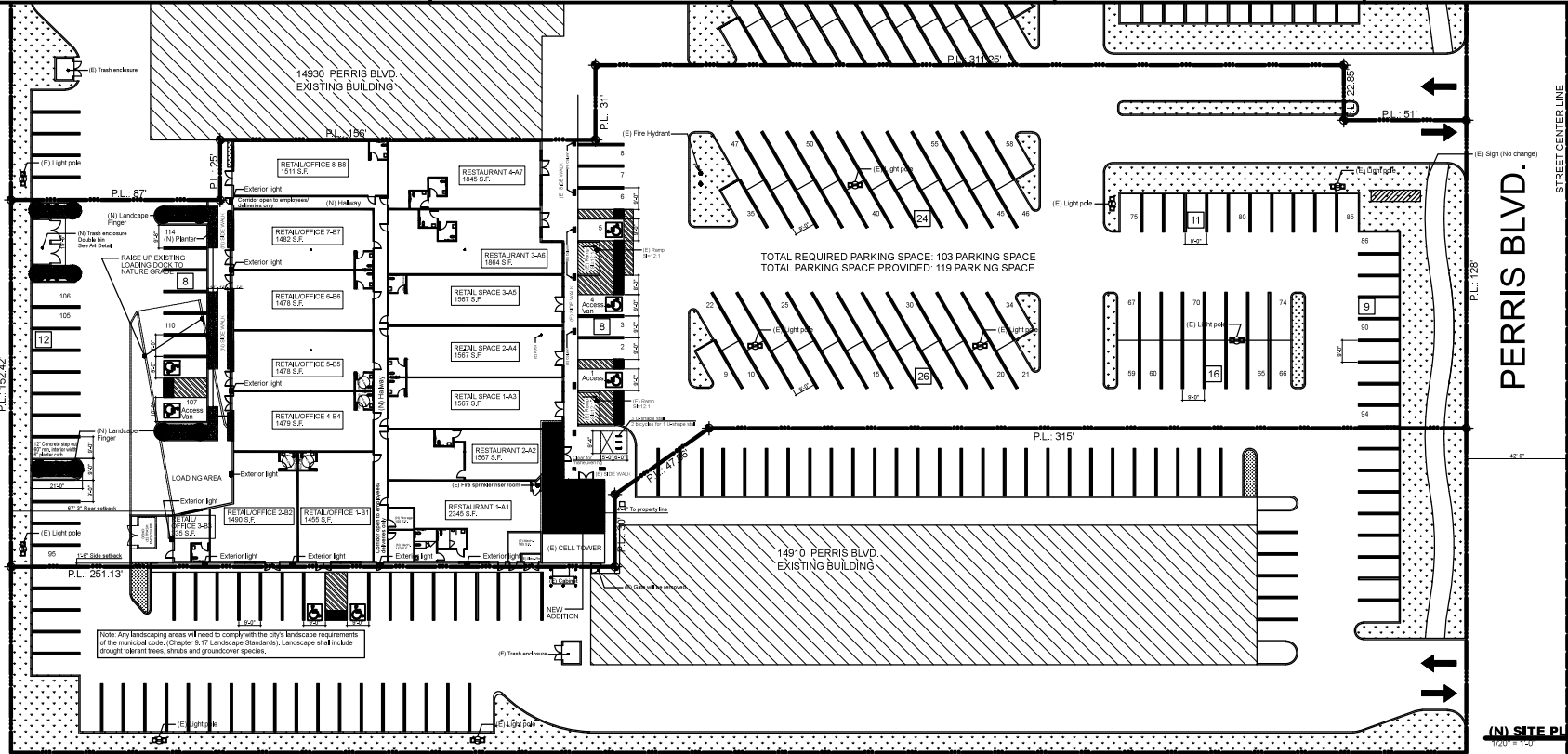
PARKING BREAKDOWN
 RESTAURANT: 225 S.F. PER SPACE
 RESTAURANT NEED: 7,651 S.F./225 S.F.=33.8
 RETAIL: 225 S.F. PER SPACE
 RETAIL NEED: 4,701 S.F./225 S.F.=20.8
 RETAIL/OFFICE: 225 S.F. PER SPACE
 RETAIL/OFFICE NEED: 10,708 S.F./225 S.F.=47.5
 TOTAL REQUIRED PARKING SPACE: 103 PARKING SPACE
 TOTAL PARKING SPACE PROVIDED: 114 PARKING SPACE

Note:
 Restaurant needed: within 25,000 S.F. of gross floor area or greater-1 space/225 S.F.
BICYCLE STALL REQUIREMENT
 ACCORDANCE WITH M.V.M.C. §11,060 5N/103-S.15 (6 BICYCLES)
 PROVIDE 3 U-SHAPE STALLS/1 U-SHAPE STALL FOR 2 BICYCLES)

FIRE PREVENTION BUREAU NOTE:
 The underground fire main supplying the existing fire sprinkler system shall not run under the building more than 10', as measured from the outside edge of the building to the centerline of the riser, or modifications to the underground fire main will be required.

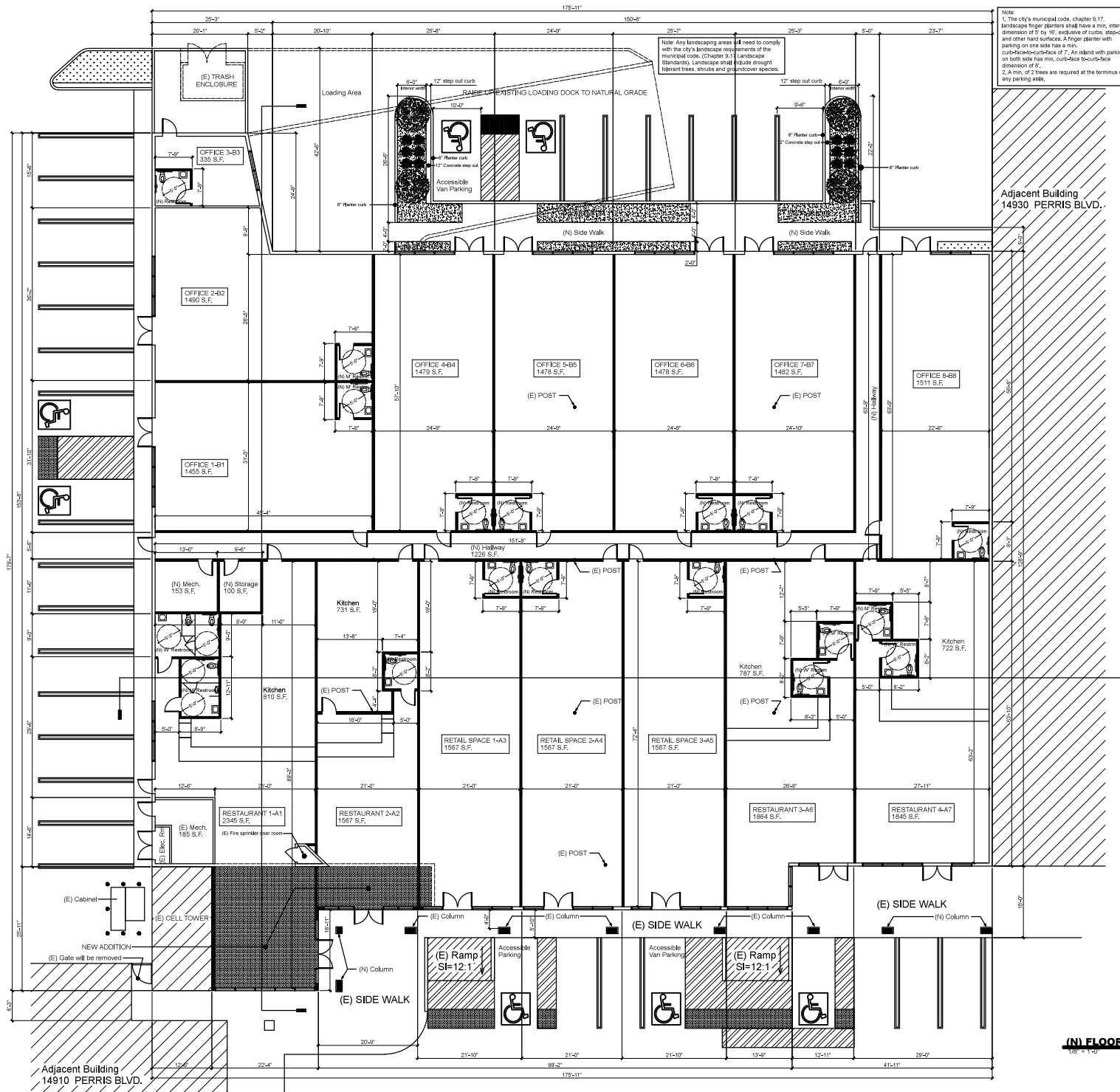


(N) SITE PLAN
1/20" = 1'-0"



Note: Any landscaping areas will need to comply with the city's landscape requirements of the municipal code (Chapter 5.11 Landscape Standards). Landscaping shall include drought tolerant trees, shrubs and groundcover species.

(N) SITE PLAN
1/20" = 1'-0"



Note: 1. The city's municipal code, chapter 9.17, landscape finger planters shall have a min. interior dimension of 5' by 16', exclusive of curbs, step-outs and other hard surfaces. A finger planter with parking on one side has a min. curb-to-curb-face of 7'. An island with parking on both sides has min. curb-to-curb-face dimension of 8'. 2. A min. of 2 trees are required at the terminus of any parking aisle.

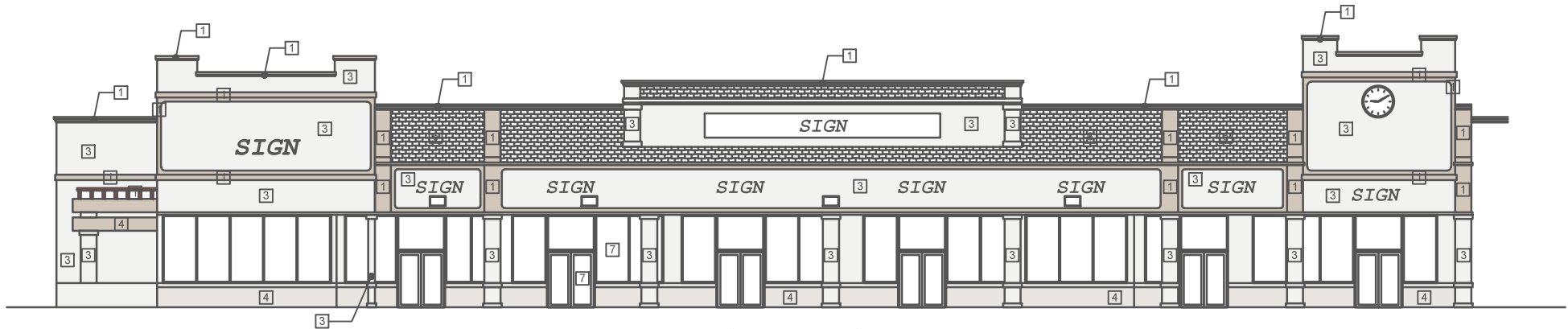
Adjacent Building
14930 PERRIS BLVD.

Adjacent Building
14910 PERRIS BLVD.

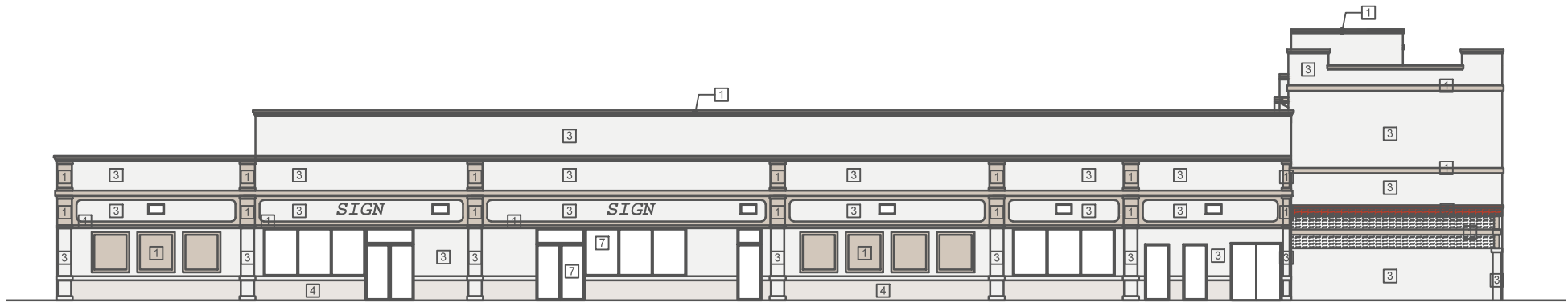
(N) FLOOR PLAN
1/8" = 1'-0"

DATE	NO.
TOP-ARC GROUP	
PLAZA REMODEL	
PROJECT TITLE / ADDRESS	
DRAWING	
DATE	
DRAWN E	
CHECKED	
SCALE	
SHEET NO.	

Attachment: Floor Plan (2612 : PEN16-0161 Plot Plan - Food Grill Investments)



WEST ELEVATION



NORTH ELEVATION

MATERIAL BOARD

1 Tiramisu cream HDC-MD-12M



3 Bit Of Sugar PR-W14



4 Scroll N280-1



5 Torch red MQ4 35



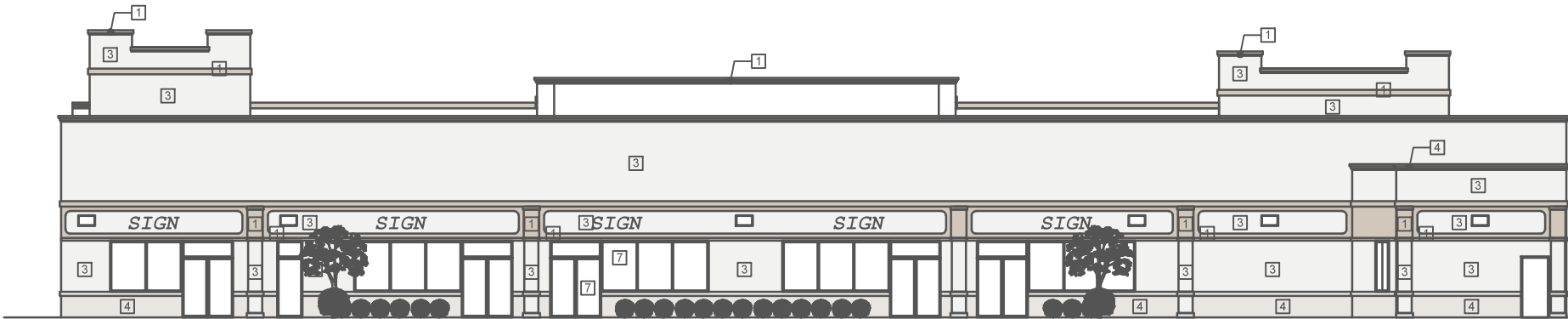
6 Med Gray



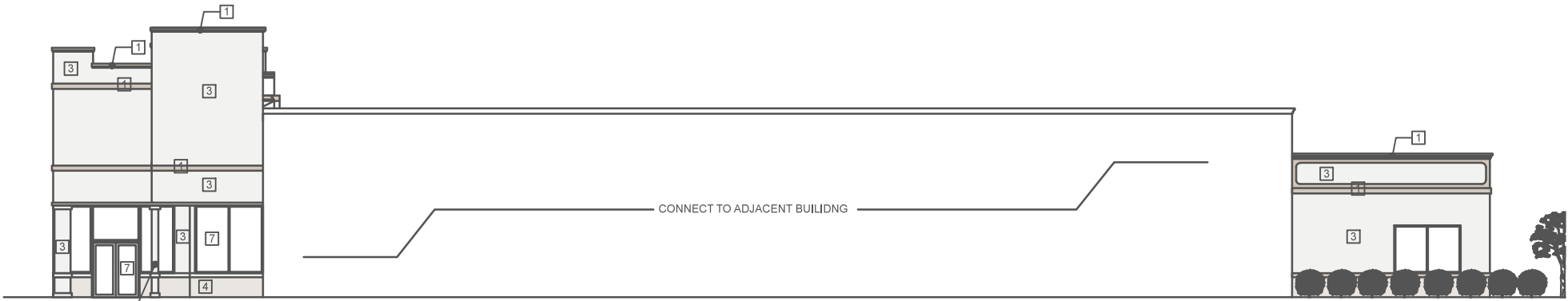
7 Glass wind/door metal frame: f



Attachment: Colored Elevations (2612 : PEN16-0161 Plot Plan - Food Grill Investments)



EAST ELEVATION



SOUTH ELEVATION

MATERIAL BOARD

1 Tiramisu cream HDC-MD-12M



3 Bit Of Sugar PR-W14



4 Scroll N280-1



5 Torch red MQ4 35



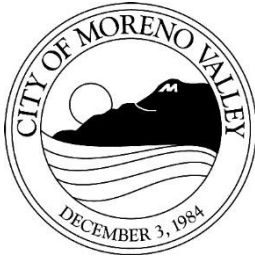
6 Med Gray



7 Glass wind/door metal frame: Bla



Attachment: Colored Elevations (2612 : PEN16-0161 Plot Plan - Food Grill Investments)



PLANNING COMMISSION

STAFF REPORT

Meeting Date: April 27, 2017

BRODIAEA BUSINESS CENTER PROJECT - PEN16-0100 (PA16-0075) - PLOT PLAN TO DEVELOP A 99,978 SQUARE FOOT INDUSTRIAL BUILDING ON A 6.71 ACRE PARCEL LOCATED WITHIN A BUSINESS PARK (BP) ZONING DISTRICT NEAR THE SOUTHWEST CORNER OF HEACOCK STREET AND BRODIAEA AVENUE AND VARIANCE APPLICATION PEN16-0101 (P16-114) TO ALLOW FOR A LARGER BUILDING THAN THE BP ZONE PERMITS DUE TO UNIQUE SITE CONSTRAINTS THAT INCLUDE A TRIANGULAR SHAPED PARCEL, AN EASEMENT FOR THE CALIFORNIA AQUEDUCT AND A SEGMENT OF STORM DRAIN CHANNEL.

Case: PEN16-0100 (PA16-0075) – Plot Plan
PEN16-0101 (P16-114) – Variance

Applicant: Core 5 Industrial Partners

Owner: Prologis Development Services

Representative: EPD Solutions

Location: Near the southwest corner of Brodiaea Avenue and Heacock Street

Case Planner: Jeff Bradshaw

Council District: 1

SUMMARY

Plot Plan to develop a 99,978 square foot industrial building on a 6.71 acre parcel located within a Business Park (BP) zoning district near the southwest corner of Heacock Street and Brodiaea Avenue and a Variance application to allow for a larger building than the BP zone permits due to unique site constraints that include a triangular

shaped parcel, an easement for the California Aqueduct and a segment of storm drain channel.

PROJECT DESCRIPTION

Project

Plot Plan

The project proposes the development of a 99,978 square foot warehouse distribution building on 6.71 acres to include 87 employee parking spaces and 25 trailer parking space. Site design includes an emergency access road for access to the rear of the building and a detention basin.

The loading and truck parking areas have been oriented away from residential properties to the east. The truck court will be screened by perimeter concrete tilt-up walls and perimeter landscape for portions located with the California Aqueduct easement area.

The project has been conditioned to provide parking lot and setback landscaping to include ground cover shrubs and trees.

The project's Brodiaea Avenue frontage has already been developed with curb, gutter, sidewalk and streetlights.

Variance

The project site is 6.71 acres and zoned Business Park (BP) which limits a single warehouse building to no more than 50,000 square feet. The project proposes a single building of 99,978 square feet on the 6.71 acre site.

A site area of 6.71 acres could typically accommodate the development of two buildings of 50,000 square feet. However, this is not possible for the project site due to unique site constraints which include the site's triangular shape, the location of the storm drain channel along the eastern side of the site, and a 100 foot wide Department of Water Resources easement for the California Aqueduct and a 20 foot easement for an Eastern Municipal Water District sewer easement along the westerly side of the property.

The project proposes to develop a single warehouse distribution building of 99,978 square feet on 6.71 acre site. The shape of the developable area is irregular and poses challenges when designing a project that would maximize the available building area and still meet required setbacks, building separation, building height and parking requirements.

Strict or literal interpretation and enforcement of the limitation on building area to 50,000 square feet or less would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity

Site

The Project Site is located near the southwest corner of the intersection of Brodiaea Avenue and Heacock Street (Assessor's Parcel Number 297-170-078). The site is within the Centerpointe Business Park (CBP) site in west Moreno Valley, which is made up of large warehousing and distribution center buildings.

The Project Site is vacant with minimal improvements, including two driveways, fencing and a pedestrian and bicycle path. The existing driveways provide access off of Brodiaea Avenue, with one at the northeast corner of the site and one at the northwest corner.

The Site is bordered by fencing along the basin to the west, along the sidewalk to the north and along the east property line. Street lights border the sidewalk to the north. A publicly accessible concrete pedestrian and bicycle path has been constructed onsite along the easterly property, west of Heacock Street and the Heacock Channel.

A 100-footwide easement traverses the site parallel to the eastern boundary, held by the Department of Water Resources (DWR) for the California Aqueduct. The 100-foot DWR easement includes a 20-footwide Eastern Municipal Water District (EMWD) easement. In this 100-foot easement area, no structures or trees are permitted, but paving and other surface-level are allowed.

The existing topography is relatively flat with an approximate slope of 1.5% to the southeast. The Site has an approximate ground surface elevation of 1,550 feet above mean sea level (MSL). Surface water drainage at the site is characterized by sheet flow along the existing ground contours to the southeast corner of the project site. The site is not impacted by any off-site flows.

Surrounding Area

The project site is bounded by vacant Business Park and Business Park Mixed-use zoned properties to the north, existing warehouse in the Light Industrial zoned properties to the west, March Air Reserve Base to the south, and to existing single-family residential property in the R5 zone on the east side of Heacock Street. The nearest residential property line is at least 250 feet to the east.

The project is in close proximity to the I-215 freeway which is located approximately two miles to the west. Other land uses in the vicinity include the Heacock storm channel, a segment of the Juan Bautista de Anza trail, and an Eastern Municipal Water District facility at the southeast corner of Cactus Avenue and Heacock Street.

The project design includes architectural treatments on the building's north, east and south elevations where visible from the public right-of way. Access to the site is limited to driveways located on Brodiaea Avenue. There is no access to the site from Heacock Street. The building is separated from the existing single-family residences to the east

by the reverse frontage parkway on the east side of Heacock Street, the width of the street itself, the Heacock storm drain channel, a segment of the Juan Bautista de Anza trail and a detention basin on the project site located between the trail and the building.

As designed and conditioned and subject to approval of a Variance to allow for single warehouse building of greater than 50,000 square feet, the proposed warehouse distribution building is compatible with existing and proposed land uses in the vicinity.

Access/Parking

Primary vehicular access to the development is from two driveway locations on Brodiaea Avenue. Emergency access to the rear of the building is from a shared driveway on Brodiaea Avenue for maintenance access for the City's Parks and Community Services staff and Riverside County Flood Control.

The project as designed provides a total of 87 employee/visitor parking spaces and 25 trailer parking spaces. Municipal Code Section 9.11 requires a total of 65 employee/visitor parking spaces 17 trailer parking spaces for the project. The project as designed satisfies all parking requirements of the City's Municipal Code including ADA accessible parking. Requirements for alternative fuel vehicle parking (aka EVCS) shall be addressed subsequently through building plan check which is typical prior to issuance of building permits.

The driveways and interior drive aisles within the site have been reviewed and approved by the Fire Prevention Bureau for fire truck access. The site design has been evaluated to ensure for adequate truck maneuvering and turnaround for delivery trucks and trash pick-up.

Design/Landscaping

Site design of the proposed warehouse distribution facility is consistent with requirements of the City's Municipal Code Section 9.05 Industrial Districts.

The architectural design of the buildings is concrete tilt-up construction. Building and wall colors include earthtones, with varying amounts of accent colors and vertical features to break up the architecture of building. Roof top equipment will be screened from public view by parapet walls.

Staff worked with the applicant to ensure that all sides of the buildings include architectural treatment. The loading bays and trailer storage areas have been screened from view. The screen walls are of concrete tilt-up construction which will match the building designs and colors.

Landscaping for the project as proposed is at around 18% of the site area. The City's Municipal Code does not require a minimum percentage of landscape on a site. Instead, there are requirements for landscape setback areas along perimeter streets, parking lot landscape, street trees and landscape treatments around the perimeter of

the buildings where visible from the public right-of-way. The project as designed meets the City's current landscape criteria.

Signs are not a part of this approval and will be reviewed and approved under separate administrative permit.

This project design conforms to all development standards of the Business Park zone and the design guidelines for industrial uses as required within the City's Municipal Code.

REVIEW

Applications for this project were submitted in October 25, 2016. Upon completion of the initial plan review, the project was scheduled for review by the Project Review Staff Committee (PRSC) in November 2016 and February 2016. Modifications were requested to the plot plan and preliminary grading plan to address concerns with circulation, access, building design and corrections to required technical studies. Written comments were provided to the applicant.

Upon resolution of all outstanding site, building, preliminary grading and environmental review issues, the staff report was prepared and final conditions of approval were drafted so that the project could be scheduled for the Planning Commission public hearing on April 27, 2017.

ENVIRONMENTAL

An Addendum / Initial Study checklist to a previously adopted Negative Declaration was prepared by EPD Solutions in accordance with the provisions of the California Environmental Quality Act (CEQA) based on a thorough analysis of potential environmental impacts.

Based on the analysis in this Initial Study and Addendum, the City of Moreno Valley determined that the potential impacts of the Proposed Project were previously analyzed in or are substantially similar to the impacts analyzed in the prior adopted 2005 Negative Declaration (ND; Adopted ND) prepared for the project and that none of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply.

The City of Moreno Valley determined that they would prepare this Addendum to: (1) evaluate whether the project's environmental impacts were already analyzed in the prior Negative Declaration; (2) document City's findings with respect to the project and its environmental determinations; and, (3) evaluate and document that a new, supplemental or subsequent EIR, Negative Declaration (ND), or other CEQA document was not warranted.

This Addendum is the appropriate CEQA documentation for the project because:

- The project would not lead to increased environmental impacts beyond those that are already identified in the ND;
- The project does not modify previously-analyzed impacts or findings in any substantive way;
- No new mitigation measures are required;
- None of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply; and,
- No new significant adverse project-specific or cumulative impacts in any environmental areas were identified, nor would any project-specific or cumulative impacts in any environmental areas be made worse as a result of implementing the project.

None of the conditions described in Section 15162 of the CEQA Guidelines have occurred. Specifically, there have not been: (1) changes to the project that require major revisions to the prior ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; (2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions to the previous ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or (3) the availability of new information of substantial importance relating to significant effect or mitigation measures or alternatives that was not known and could not have been known when the ND was adopted as complete.

Planning staff has reviewed the document and worked with the consultant to ensure a comprehensive environmental document consistent with CEQA requirements. The Addendum represents the City’s independent judgment and analysis.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on April 15, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on April 13, 2017. The public hearing notice for this project was posted on the project site on April 17, 2017.

As of the date of report preparation, staff has received one phone call from a resident who stated concerns and opposition to the development of a warehouse building on the project site.

REVIEW AGENCY COMMENTS

Staff received the following responses to the Project Review Staff Committee transmittal; which was sent to all potentially affected reviewing agencies.

<u>Agency</u>	<u>Response Date</u>	<u>Comments</u>
Riverside County Flood Control	December 1, 2016	Standard comments
Eastern Municipal Water District	December 2, 2016	Will serve letter
Airport Land Use Commission	January 5, 2017	Plan consistency letter

Staff has coordinated with the agencies listed above and where applicable, conditions of approval have been included to address concerns from the responding agencies.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

1. **APPROVE** Resolution No. 2017-23 and:
 - **CERTIFY** an Addendum to a previously adopted Negative Declaration for Plot Plan PEN16-0100, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
 - **APPROVE** Plot Plan PEN16-0100 based on the findings contained in this resolution, and subject to the attached conditions of approval included as Exhibit A.

2. **APPROVE** Resolution No. 2017-24 and:
 - **RECOGNIZE** that Variance application PEN16-0101 has been included in the project description of the Addendum to a previously adopted Negative Declaration and has therefore been fully analyzed pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
 - **APPROVE** Variance application PEN16-0101 based on the findings contained in this resolution.

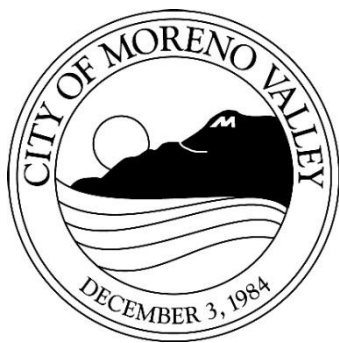
Prepared by:
Jeffrey Bradshaw
Associate Planner

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. 300 Foot Radius Map
3. Resolution 2017-23
4. Exhibit A to Resolution 2017-23
5. Resolution 2017-24
6. Addendum - Initial Study Checklist
7. Original Initial Study 2005
8. Aerial Photograph
9. Project Plans
10. Preliminary Grading Plan

11. Air Pollutant & Greenhouse Gas Emissions Modeling Sheets
12. Habitat Assessment Report
13. Cultural & Paleontological Resources Literature Review & Records Search
14. Geotechnical Investigation
15. ALUC Development Review Determination
16. Water Quality Management Plan
17. Trip Generation Analysis
18. Health Risk Analysis



This may affect your property

Notice of PUBLIC HEARING

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

Project: PEN16-0100 (PA16-0075) – Plot Plan
PEN16-0101 (P16-114) – Variance

Applicant: Core 5 Industrial Partners
Owner: Prologis Development Services
Representative: EPD Solutions
A.P. No.: 297-170-078
Location: Near the southwest corner of Brodiaea Avenue and Heacock Street

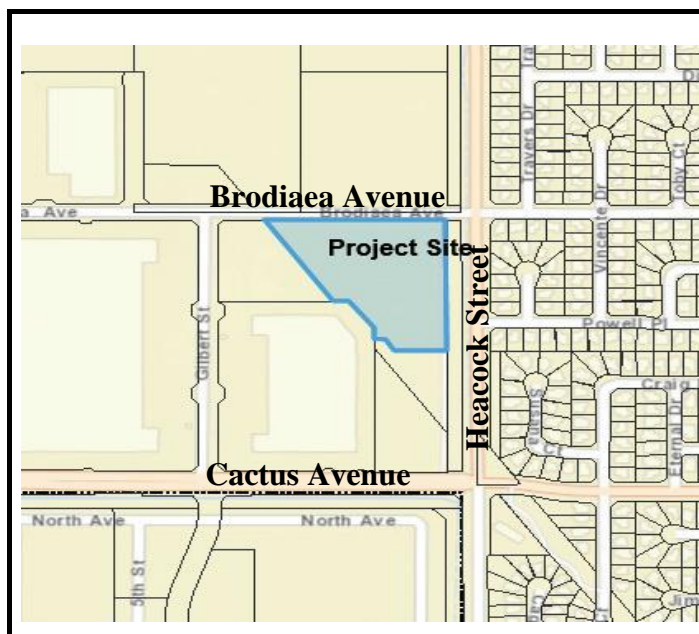
Proposal: Plot Plan application to develop a 99,978 square foot industrial building on a 6.71 acre parcel located within a Business Park (BP) zoning district near the southwest corner of Heacock Street and Brodiaea Avenue. The project also proposes a Variance to allow for a larger building than the BP zone permits due to unique site constraints that include a triangular shaped parcel, an easement for the California Aqueduct and a segment of storm drain channel.

Council District: 1

Environmental Determination: Addendum to a previously adopted Negative Declaration. The City of Moreno Valley has reviewed the above project in accordance with the California Environmental Quality Act (CEQA) Guidelines. An Addendum to the Negative Declaration for prior review of the project site has been prepared pursuant to Section 15164 of the CEQA Guidelines. The project will not cause a significant effect in this case because site conditions are consistent and do not create more or different environmental impacts than those addressed in the Environmental Impact Report. None of the conditions described in Section 15162 of the CEQA Guidelines that call for preparation of a subsequent Negative Declaration have occurred.

A public hearing before the Planning Commission has been scheduled for the proposed project. Any person interested in commenting on the proposal and recommended environmental determination may speak at the hearing or provide written testimony at or prior to the hearing. The project application, supporting plans and environmental documents may be inspected at the Community Development Department at 14177 Frederick Street, Moreno Valley, California during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m., Friday), or you may telephone (951) 413-3206 for further information.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal. If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.



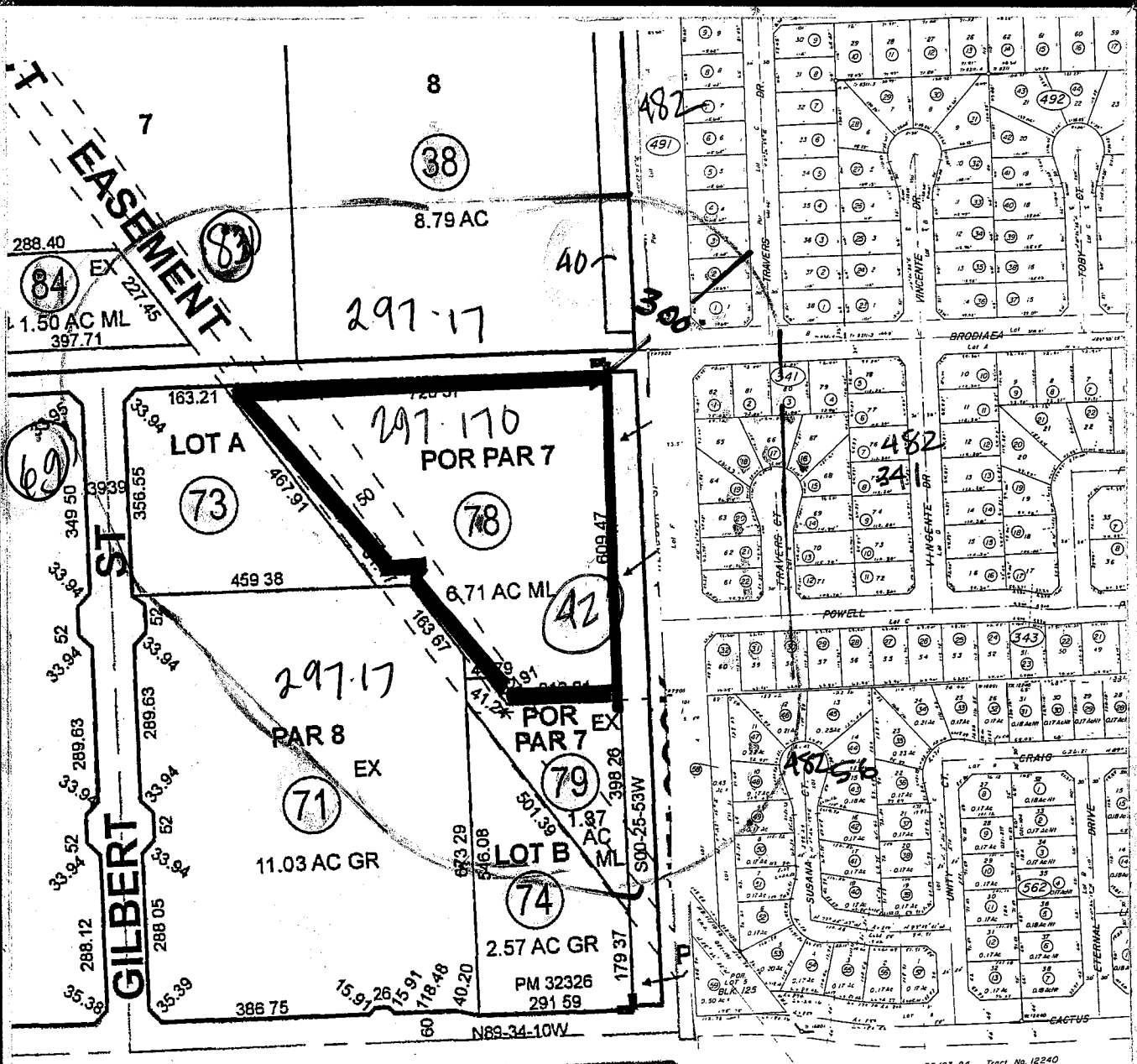
LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: April 27, 2017, 7:00 p.m.
CONTACT PLANNER: Jeff Bradshaw
PHONE: (951) 413-3224

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.



MB 130/03-84 Tract No 12240
 MB 144/32-83 169 01
 M.B.11/05B Bear Valley & Alessandro Development Cc

Map Preparer:
 SUSAN W. CASE, INC.
 917 GLENNEYRE ST #7
 LAGUNA BEACH CA 92651
 949 494 6105
 susancaseinc@yahoo.com

FILE # 163644
 HEACOCK ST & BRODIAEA AVE
 MORENO VALLEY CA
 300' OWNERS
 OCTOBER 27 2016
 297 170 078



NORTH

Attachment: 300 Foot Radius Map (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

PLANNING COMMISSION RESOLUTION NO. 2016-23

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING PLOT PLAN APPLICATION PEN16-0100 FOR DEVELOPMENT OF A 99,978 SQUARE FOOT WAREHOUSE DISTRIBUTION BUILDING ON A 6.71 ACRE SITE LOCATED NEAR THE SOUTHWEST CORNER OF BRODIAEA AVENUE AND HEACOCK STREET (ASSESSOR'S PARCEL NUMBER 297-170-078).

WHEREAS, EPD Solutions, on behalf of Core 5 Industrial Partners, has filed an application for the approval of Plot Plan PEN16-0100 for development of a 99,978 square foot warehouse distribution building located near the southwest corner of Brodiaea Avenue and Heacock Street as described in the title above; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, an Addendum / Initial Study checklist to a previously adopted Negative Declaration consistent with the California Environmental Quality Act (CEQA) was prepared for the project based on a thorough analysis of potential environmental impacts; and

WHEREAS, upon completion of a thorough development review process, including a comprehensive independent review of the Addendum by City staff, the project was appropriately agendaized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, the public hearing notice for this project was published in the local newspaper on April 15, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on April 13, 2017. The public hearing notice for this project was also posted on the project site on April 17, 2017;

WHEREAS, on April 27, 2017, the Planning Commission held a public hearing to consider the application; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on April 27, 2017, including written and oral staff reports, public testimony and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies** – The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

FACT: The project proposes development of a 99,978 square foot warehouse distribution building in the Business Park (BP) zone on 6.71 acre site. The General Plan land use designation for the project site is Business Park.

The project is consistent with General Plan policies and objectives. Objective 2.5 is to promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses. General Plan Policy 2.5.1 states that the primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities

Subject to approval of a Variance to allow for a single building larger than 50,000 square feet in the Business Park zone, the project as designed and conditioned will achieve the objectives of the City of Moreno Valley's General Plan. The proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan.

2. **Conformance with Zoning Regulations** – The proposed use complies with all applicable zoning and other regulations.

FACT: The project site is currently zoned Business Park (BP) which limits a single industrial building to no more than 50,000 square feet. The project proposes a single building of 99,978 square feet on a 6.71 acre site. A site area of 6.71 acres could typically accommodate the development of two buildings of 50,000 square feet. However, this is not possible for the project site due to unique site constraints which include the site's triangular shape, the location of the storm drain channel along the eastern side of the site, and a 100 foot wide Department of Water Resources

easement for the California Aqueduct and a 20 foot easement for an Eastern Municipal Water District sewer easement along the westerly side of the property.

Based on the constraints, a Variance application is proposed for the project to allow for a single building larger than 50,000 square feet. The project has been designed in accordance with the provisions of Municipal Code Section 9.05 Industrial Districts and Section 9.16.160 Design Guidelines for Business Park / Industrial. Subject to approval of a Variance to allow for a single building larger than 50,000 square feet in the Business Park zone, the project as designed and conditioned would comply with all applicable zoning and other regulations.

- 3. Health, Safety and Welfare** – The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: The proposed warehouse distribution building as designed and conditioned will provide acceptable levels of protection from natural and man-made hazards to life, health, and property consistent with General Goal 9.6.1. The project site is located within approximately one-half mile of Fire Station No. 65 located to the southeast at John F. Kennedy Park. Therefore, adequate emergency services can be provided to the site consistent with General Plan Goal 9.6.2.

An Addendum / Initial Study checklist to a previously adopted Negative Declaration was prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) based on a thorough analysis of potential environmental impacts. Planning staff reviewed the document and worked with the consultant to ensure a comprehensive environmental document consistent with CEQA requirements. The Addendum represents the City's independent judgment and analysis.

The proposed project as designed and conditioned will result in a development that will minimize the potential for loss of life and protect residents and visitors to the City from physical injury and property damage due to seismic ground shaking and flooding as provided for in General Plan Objective 6.1 and General Plan Objective 6.2. The project as designed and conditioned will be consistent with the City's Municipal Code Section 9.05 Industrial Districts.

- 4. Location, Design and Operation** – The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACT: The project is in close proximity to other sites designated for single-family residential land use. The project site is bounded by vacant Business Park and Business Park Mixed-use zoned properties to the

north, existing warehouse in the Light Industrial zoned properties to the west, March Air Reserve Base to the south, and existing single-family tract homes in the R5 zone approximately 200 feet to the east.

The project design includes architectural treatments on the building's north, east and south elevations where visible from the public right-of way. Access to the site is limited to driveways located on Brodiaea Avenue. There is no access to the site from Heacock Street. The building separated from the existing single-family residences to the east by the reverse frontage parkway on the east side of Heacock Street, the width of the street itself, the Heacock storm drain channel, a segment of the Juan Bautista de Anza trail and a detention basin on the project site located between the trail and the building.

The project is in close proximity to the I-215 freeway which is located approximately two miles to the west. Other land uses in the vicinity include the Heacock storm channel, a segment of the Juan Bautista de Anza trail, and an Eastern Municipal Water District facility at the southeast corner of Cactus Avenue and Heacock Street.

As designed and conditioned and subject to approval of a Variance to allow for single warehouse building of greater than 50,000 square feet, the proposed warehouse distribution building is compatible with existing and proposed land uses in the vicinity.

FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this Resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PEN16-0100, incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d)(1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this Resolution begins on the effective date of this Resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the applicable statute of limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-23, and thereby:

1. **CERTIFY** an Addendum to a previously adopted Negative Declaration for Plot Plan PEN16-0100, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
2. **APPROVE** Plot Plan PEN16-0100 based on the findings contained in this resolution, and subject to the attached conditions of approval included as Exhibit A.

APPROVED this 27th day of April, 2017.

Brian Lowell
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Exhibit A

Exhibit A

**CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PLOT PLAN PEN16-0100
ASSESSOR'S PARCEL NUMBER: 297-170-078**

**APPROVAL DATE:
EXPIRATION DATE:**

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

- P1. Approval of Plot Plan PEN16-0100 is subject to approval of Variance application PEN16-0101.
- P2. Plot Plan PEN16-0100 is approved for development of a 99,9878 square foot warehouse distribution building on 6.71 acres.
- P3. (BP) Prior to issuance of a building permit, the applicant shall provide a copy of a reciprocal access agreement for shared use of the Brodiaea Avenue driveway for access to the Fire emergency access road located to the east of the building.
- P4. The design of all swales and basins that are visible from the public right-of-way shall be integrated with the surrounding landscape areas.
- P5. Bicycle racks shall be provided at a minimum of five (5) percent of the required vehicular parking and shall be located near the office area(s). Eight percent of required parking shall be designated for any combination of low-emitting, fuel efficient and carpool/vanpool vehicles for all new nonresidential development.
- P6. The gates into the truck loading and parking areas that are within view of a public street shall be of solid metal construction or wrought iron with mesh to screen the interior of the loading area.
- P7. This project shall comply with South Coast Air Quality Management District (SCAQMD) rules related to dust generation (Rule 403) and the use of architectural coatings (Rule 1113).

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation	GP - Grading Permits	CO - Certificate of Occupancy or building final
WP - Water Improvement Plans	BP - Building Permits	P - Any permit

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan	MC - Municipal Code	CEQA - California Environmental Quality Act
Ord - Ordinance	DG - Design Guidelines	Ldscp - Landscape Development Guidelines and Specs
Res - Resolution	UFC - Uniform Fire Code	UBC - Uniform Building Code
	SBM - Subdivision Map Act	

**CONDITIONS OF APPROVAL
PLOT PLAN PEN16-0100
PAGE 2 OF 26**

- P8. Screening walls of decorative block or concrete tilt-up construction shall be provided to fully screen the truck loading and parking area for from view from Heacock Street and Brodiaea Avenue.
- P9. All loudspeakers, bells, gongs, buzzers or other noise attention devices installed on the project site shall be designed to ensure that the noise level at all property lines will be at or below 55 dBA for consistency with the Municipal Code.
- P10. Loading or unloading activities shall be conducted from the truck bays or designated loading areas only. (MC 9.10.140, CEQA)
- P11. No outdoor storage is permitted on the project site, except for truck and trailer storage in designated areas within the screened truck courts.
- P12. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. Use means the beginning of substantial construction contemplated by this approval within the three-year period, which is thereafter pursued to completion, or the beginning of substantial utilization contemplated by this approval. (MC 9.02.230)
- P13. The project shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)
- P14. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)
- P15. A drought tolerant, low water using landscape palette shall be utilized throughout the project to the extent feasible.
- P16. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)
- P17. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), proposed for this development shall be designed in conformance with the sign provisions of the Development Code or approved sign program, if applicable, and shall require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

**CONDITIONS OF APPROVAL
PLOT PLAN PEN16-0100
PAGE 3 OF 26**

Prior to Issuance of Grading Permits

- P18. (GP) All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.
- P19. (GP) If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community & Economic Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.
- If human remains are discovered, no further disturbance shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be contacted within a reasonable timeframe to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).
- P20. (GP) Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)
- P21. (GP) Prior to approval of any grading permits, plans for any security gate system shall be submitted to the Planning Division for review and approval.
- P22. (GP) Prior to the issuance of grading permits, the grading plan shall show decorative concrete paving for all driveway ingress/egress locations of the project. Accessible pedestrian pathways interior to the site cannot be painted. If delineation is necessary, then an alternative material is required.
- P23. (GP) Prior to the issuance of a grading permit, all required planter areas, curbs, including twelve-inch concrete step outs, and required parking space striping shall be shown on the precise grading plan.
- P24. (GP) Prior to the issuance of grading permits, the following burrowing owl survey requirements shall be incorporated into the grading plans in accordance with the Riverside County Multi-species Habitat Conservation Plan: Within 30 days of and prior to disturbance, a burrowing owl focused survey shall be conducted by a qualified biologist using accepted protocols. The survey shall be submitted to the

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Planning Division for review and approval.

- P25. (GP) Prior to issuance of grading permits, landscape plans (trees, shrubs and groundcover) for basins maintained by an POA or other private entity shall be submitted to the Planning Division for review and approval for the sides and/or slopes. A hydroseed mix with irrigation is acceptable for the bottom of all the basin areas. All detention basins shall include trees, shrubs and groundcover up to the concreted portion of the basin. A solid decorative wall with pilasters, tubular steel fence with pilasters or other fence or wall approved by the Community Development Director is required to secure all water quality and detention basins more than 18 inches in depth.
- P26. (GP) Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:
- A. A maximum 3 foot high decorative wall in lieu of a hedge or berm may be placed in setback areas adjacent to a parking lot facing a public right-of-way.
 - B. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height requirement per the Municipal Code.
 - C. A 14 foot tall solid wall of decorative block with pilasters and a cap or concrete tilt-up construction shall be provided to screen the trucks, parked trailers and the loading areas and loading docks.
 - D. A four foot tall three rail fence per Parks and Community Services standards is required adjacent the multi-use trail.
 - E. If fencing is required around basins, then fence shall be wrought iron with pilasters or a four foot three rail fence to match the trail fencing.

Prior to Issuance of Building Permits

- P27. (BP) Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)
- P28. (BP) Prior to issuance of building permits, screening details shall be addressed on plans for roof top equipment and trash enclosures submitted for Planning Division review and approval. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building. For trash enclosures, landscaping shall be included on at least three sides. The trash enclosure, including any roofing, shall be compatible with

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- the architecture for the building(s). (GP Objective 43.6, DG)
- P29. (BP) Prior to issuance of building permits, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used and shall include style, illumination, location, height and method of shielding. The lighting shall be designed in such a manner so that it does not exceed one-quarter foot-candle minimum maintained lighting measured from within five feet of any property line. The lighting level for all parking lots or structures shall be a minimum coverage of one foot-candle of light with a maximum of eight foot-candles. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, DG)
- P30. (BP) Prior to issuance of building permits, the developer or developer's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), Multi-species Habitat Conservation Plan (MSHCP) mitigation fees, and the City's adopted Development Impact Fees. (Ord)
- P31. (BP) Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approval by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Standards and shall include:
- A. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
 - B. All finger and end planters shall be included at an interval of one per 12 parking stalls, be a minimum 5' x 16', and include additional 12" concrete step-outs and 6" curbing. (MC9.08.230, City's Landscape Standards)
 - C. Diamond planters shall be provided every 3 parking stalls.
 - D. Drought tolerant landscape shall be provided. Sod shall be limited to public gathering areas only and not be included along the perimeter of the project site.
 - E. Minimum 24 inch box street trees shall be provided every 40 feet on center along the Brodiaea Avenue frontage.
 - F. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
 - G. The design of all swales and basins that are visible from the public right-of-way shall be integrated with the surrounding landscape areas.
 - H. The review of all utility boxes, transformers etc. shall be coordinated to

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- provide adequate screening from public view.
- I. Landscaping on three sides of any trash enclosure.
 - J. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits.
- P32. (BP) Prior to the issuance of building permits, the landscape plans shall include landscape treatment for trash enclosures located outside of a truck court, to include landscape on three sides, and trash enclosures shall include decorative enhancements such as an enclosed roof and other decorative features that are consistent with the architecture of the proposed commercial buildings on the site, subject to the approval of the Community Development Director.
- P33. (BP) Prior to the issuance of building permits, all fences and walls required or proposed on site, shall be approved by the Community & Economic Development Director. (MC 9.08.070)
- P34. (BP) Prior to the issuance of building permits, downspouts will be interior to the building, or if exterior, integrated into the architecture of the building to include compatible colors and materials to the satisfaction of the Community Development Director.
- P35. (BP) Prior to the issuance of building permits the building site plan shall include decorative concrete or paving for all driveway ingress/egress locations for the project.

Prior to Issuance of a Certificate of Occupancy

- P36. (CO) Prior to the issuance of Certificates of Occupancy or building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Community & Economic Development Department – Planning Division. (MC 9.080.070).
- P37. (CO) Prior to issuance of Certificate of Occupancy or building final, all required landscape and irrigation shall be installed in accordance with the City's Landscape Standards and the approved landscape plans.

Building and Safety Division

The following conditions have been generated based on the information provided with your application. Please note that future revisions or changes in scope to the project may require additional items. Fee estimates for plan review and permits can be obtained by contacting the Building Safety Division at 951.413.3350.

- B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area,

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occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

- B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (OPR). All requirements in The 2013 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.
- B3. The proposed non-residential project shall comply with 2013 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).
- B4. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.
- B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2013 California Plumbing Code Table 4-1.
- B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.
- B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.
- B8. The proposed development is subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.
- B9. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.
- B10. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)
- B11. Any construction within the city shall only be as follows: Monday through Friday (except for holidays) seven a.m. to seven p.m.; Saturday from eight a.m. to four p.m., unless written approval is first obtained from the Building Official or City Engineer per City of Moreno Valley Municipal Code (MC 8.14.040E).
- B12. Contact the Building Safety Division for permit application submittal requirements.

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SCHOOL DISTRICT

- S1. (BP) Prior to issuance of building permits, the developer shall provide to the Community Development Director a written certification by the affected school district that either: (1) the project has complied with the fee or other exaction levied on the project by the governing board of the district, pursuant to Government Code Section 65996; or (2) the fee or other requirement does not apply to the project.

UNITED STATES POSTAL SERVICE

- PO1. (BP) Prior to the issuance of building permits, the developer shall contact the U.S. Postal Service to determine the appropriate type and location of mailboxes.

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

- ALUC1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- ALUC2. The follow uses/activities are not included in the proposed project and shall be prohibited at this site:
- a) Any use which would direct a steady light or flashing light or red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
 - b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one side or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
 - d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- ALUC3. The land owner shall provide the attached disclosure notice to all potential purchasers of the property and tenants of the building.

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- ALUC4. Any new detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping.

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b) (13)(A)

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FIRE PREVENTION BUREAU

1. The fire flow test report prepared by Eastern Municipal Water District (E.M.W.D.) shows the required fire flow for the proposed project may be available. However, since E.M.W.D. is stating one of the points of connection should be from the existing 30" water line running down the western side of the property, the fire department is concerned with how the water system will be designed. Therefore, the fire department is requesting a conceptual water plan to be submitted for review. The water plan shall show the points of connection to the existing water lines, the proposed locations of the fire hydrants and the fire department connection. A minimum of 4 fire hydrants will be required for the project. The two existing fire hydrants on Brodiaea may be included. All of the required fire hydrants shall be super fire hydrants with outlet diameters of 4" x 2 ½" x 2 ½". The maximum distance from any point along the fire access road to a fire hydrant is 315 feet.

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

- F1. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 3,375 g.p.m. for 3 hours duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design or construction type as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)
- F2. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. The size and number of outlets required for the approved fire hydrants are (6" x 4" x 2 ½" x 2 ½") (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)
- F3. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)
- F4. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])
- F5. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations

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- of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)
- F6. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty-four (24) feet and an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])
- F7. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)
- F8. Prior to issuance of Certificate of Occupancy or Building Final, "Blue Reflective Markers" shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)
- F9. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])
- F10. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])
- F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)
- F12. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)
- F13. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:
- a. Be signed by a registered civil engineer or a certified fire protection engineer;
 - b. Contain a Fire Prevention Bureau approval signature block; and
 - c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

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The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

- F14. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)
- a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.
- F15. Prior to issuance of a Certificate of Occupancy or Building Final, a “Knox Box Rapid Entry System” shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. Electric powered gates shall be provided with Knox key switches for access by emergency personnel. Where manual operated gates are permitted, they shall be provided with a Knox box or Knox padlock. (CFC 506.1, 503.6)
- F16. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)
- F17. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

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PUBLIC WORKS DEPARTMENT – LAND DEVELOPMENT DIVISION

The following are the Public Works Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Land Development Division.

General Conditions

- LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City’s Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]
- LD2. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:
- (a) Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.
 - (b) Observance of working hours as stipulated on permits issued by the Land Development Division.
 - (c) The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.
 - (d) All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

- LD3. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]
- LD4. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: *“Drainage Easement – no structures, obstructions, or encroachments by landfills are allowed.”* In addition, the grade within the easement area shall not exceed a 3:1 (H:V) slope, unless approved by the City Engineer.

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- LD5. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.
- LD6. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.
- LD7. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.
- LD8. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:
- (a) The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.
 - (b) Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.
 - (c) All improvement plans are substantially complete and appropriate clearance letters are provided to the City.
 - (d) A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.
- LD9. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.
- LD10. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.
- LD11. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

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- (a) Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;
- (b) Incorporates Source Control BMPs and provides a detailed description of their implementation;
- (c) Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and
- (d) Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

- LD12. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.
- LD13. (GPA) The developer shall pay all remaining plan check fees.
- LD14. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Grading Permit

- LD15. (GP) The developer shall submit written permission from adjacent property owners when off-site grading is necessary for the construction of on-site or off-site improvements.
- LD16. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]
- LD17. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]
- LD18. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]
- LD19. (GP) The developer shall pay all applicable inspection fees.

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LD20. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

Prior to Improvement Plan Approval

LD21. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD22. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD23. (IPA) For non-subdivision projects, all street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

Prior to Encroachment Permit

LD24. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD25. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD26. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD27. (BP) For non-subdivision projects, all street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

LD28. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by

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executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

- LD29. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.
- LD30. (BP) Certification to the line, grade, flow test, and system invert elevations for the water quality control BMPs shall be submitted or review and approved by the City Engineer (excluding models homes).
- LD31. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.
- LD32. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Prior to Occupancy

- LD33. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.
- LD34. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.
- LD35. (CO) All outstanding fees shall be paid.
- LD36. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:
- (a) Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

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- i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or
 - ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.
 - (b) Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]
- LD37. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:
- (a) Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.
 - (b) Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.
 - (c) City-owned utilities.
 - (d) Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.
 - (e) Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]
 - (f) Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.
- LD38. (CO) For commercial, industrial and multi-family projects, a “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” can be obtained by contacting the Land Development Division.
- LD39. (CO) The Developer shall comply with the following water quality related items:
- (a) Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.
 - (b) Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

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- (c) Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and
 - (d) Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.
 - (e) Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.
 - (f) Provide City with updated Engineer's Line and Grade Certification.
 - (g) Obtain approval and complete installation of the irrigation and landscaping.
- LD40. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:
- (a) Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).
 - (b) Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

- LD41. Prior to issuance of a grading permit, rough grading plans shall be submitted for review and approved.
- LD42. Prior to issuance of a grading permit, the applicant shall provide non-interference letters or written permission from the California Department of Water Resources (DWR) and Eastern Municipal Water District (EMWD) for proposed improvements within each agency's respective easement.
- LD43. Prior to rough grading plan approval, the Applicant shall prepare and submit for approval a final, project-specific water quality management plan (F-WQMP). The F-WQMP shall be consistent with the approved P-WQMP, as well as in full conformance with the document; "Water Quality Management Plan - A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012. The F-WQMP shall be submitted and approved prior to application for and issuance of grading permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs, Treatment Control BMPs, Operation and Maintenance requirements for BMPs and sources of funding for BMP implementation.
- (a) The Applicant has proposed to incorporate the use of bio-retention basins. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP guidance document.

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- (b) The Applicant shall substantiate the applicable Hydrologic Condition of Concerns (HCOC) in Section F of the F-WQMP. The HCOC designates that the project will comply with the HCOC mitigation as specified in Section F.
 - (c) All proposed LID BMP's shall be designed in accordance with the RCFC&WCD's Design Handbook for Low Impact Development Best Management Practices, dated September 2011.
 - (d) The proposed LID BMP's as identified in the project-specific P-WQMP shall be incorporated into the Final WQMP.
 - (e) The NPDES notes per City Standard Drawing No. MVFE-350-0 shall be included in the grading plans.
 - (f) Post-construction treatment control BMPs, once placed into operation for post-construction water quality control, shall not be used to treat runoff from construction sites or unstabilized areas of the site.
 - (g) Prior to precise grading plan approval, the grading plan shall show any proposed trash enclosure to include a cover (roof) and sufficient size for dual bin; one bin for trash and one bin for recyclables.
- LD44. Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.
- LD45. Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov) and as approved by the City's Building and Safety Division.
- LD46. Prior to precise grading plan approval, emergency overflow area(s) shall be shown at all applicable drainage improvement locations in the event that the drainage improvement fails or exceeds full capacity. This may include, but not be limited to, undersidewalk parkway drains and emergency spillways.
- LD47. Prior to issuance of a building permit, the precise grading plans shall be approved.
- LD48. Prior to issuance of a building permit, a 4-foot minimum pedestrian right-of-way dedication behind the proposed driveway approaches on Brodiaea Avenue shall be submitted for review, approval and recordation. The driveway approaches shall be constructed per City Standard MVSI-112C-0.

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- LD49. Prior to building permit issuance, the applicant shall schedule a walk through with a Public Works Inspector to inspect existing improvements within public right-of-way along project frontage. The applicant may be required to install, replace and/or repair any missing, damaged or substandard improvements that do not meet current City standards. The applicant may be required to post security to cover the cost of the repairs and complete the repairs within the time allowed in the public improvement agreement used to secure the improvements.
- LD50. Prior to occupancy, the applicant shall demonstrate:
- (a) That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;
 - (b) That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;
 - (c) That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and
 - (d) That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.
- LD51. Prior to occupancy, as-built precise grading plans shall be submitted for review and approved. A digital copy (PDF) of the approved as-built plans shall be submitted.

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PUBLIC WORKS DEPARTMENT – TRANSPORTATION ENGINEERING DIVISION

Based on the information contained in our standard review process we recommend the following conditions of approval be placed on this project:

General Conditions

- TE1. Driveways shall conform to City of Moreno Valley Standard No. MVSI-112C-0 for commercial driveway approach. Access at the driveways shall be as follows:
- Brodiaea Avenue westerly driveway: Full access allowed.
 - Brodiaea Avenue easterly driveway: Full access allowed.
- TE2. Brodiaea Avenue is designated as an industrial collector (78'RW/56'CC) per City Standard Plan No. MVSI-106A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.
- TE3. Sight distance at the proposed driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.
- TE4. All proposed on-site traffic signing and striping shall be in accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).
- TE5. A signing and striping plan shall be prepared per the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD) and City of Moreno Valley Standard Plans to provide for a continuous two-way left turn lane along the property frontage.

Prior to Certificate of Occupancy or Building Final

- TE6. (CO) Prior to issuance of Certificate of Occupancy, improvements identified in TE5, shall be completed per the approved plans to the satisfaction of the City Traffic Engineer.

**CONDITIONS OF APPROVAL
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FINANCIAL & MANAGEMENT SERVICES DEPARTMENT

Special Districts Division

Acknowledgement of Conditions

The following are the Special Districts Division's Conditions of Approval for PEN16-0100; this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

SD1. This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

Pending

SD2. Commercial (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify

**CONDITIONS OF APPROVAL
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the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

- SD3. This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)
- SD4. The ongoing maintenance of any landscaping required to be installed behind the curb on Brodiaea Avenue shall be the responsibility of the property owner.
- SD5. Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.
- SD6. The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

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PUBLIC WORKS DEPARTMENT – MORENO VALLEY UTILITY

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PEN16-0100; this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Public Works Department 951.413.3500. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

- MVU1. This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.
- MVU2. This project requires the installation of electric distribution facilities. The developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer shall execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and/or concurrent with trenching operations and other improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.
- MVU3. The Developer shall coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City all utility infrastructure including but not limited to, conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining, abutting, or benefiting projects as determined by Moreno Valley Utility – collectively referred to as "utility system", to and through the development, along with any appurtenant real property easements, as determined by the City Engineer necessary for the distribution and/or delivery of any and all "utility services" to and within the project. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

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- MVU4. The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.
- MVU5. Existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer's expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS AND COMMUNITY SERVICES DEPARTMENT

- PCS1. This project may be required to supply a funding source for the continued maintenance, enhancement, and or retrofit of neighborhood parks, open spaces, linear parks, and/or trails systems. This can be achieved through annexing into Community Facilities District No. 1 (Park Maintenance). Please contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org to complete the annexation process.
- PSC2. The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone 'A' charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.
- PCS3. This project is subject to current Development Impact Fees, at time of building permit issuance.
- PCS4. This project is subject to current Quimby Fees, at time of building permit issuance.

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POLICE DEPARTMENT

- PD1. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard as determined by the Public Works Department. If security fencing is required, it shall remain in place until the project is completed or the above conditions no longer exist. (MC 9.08.080)
- PD2. (GP) Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:
- a. The name (if applicable) and address of the development.
 - b. The developer's name, address, and a 24-hour emergency telephone number. (MC 9.08.080)
- PD3. (CO) Prior to the issuance of a Certificate of Occupancy, an Emergency Contact Information Form for the project shall be completed at the permit counter of the Community Development Department - Building Division for routing to the Police Department. (MC 9.08.080)

PLANNING COMMISSION RESOLUTION NO. 2017-24

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING VARIANCE APPLICATION PEN16-0101 TO ALLOW FOR A LARGER BUILDING THAN THE BUSINESS PARK ZONE TYPICALLY PERMITS DUE TO UNIQUE SITE CONSTRAINTS THAT INCLUDE A TRIANGULAR SHAPED PARCEL, AN EASEMENT OF THE CALIFORNIA AQUEDUCT AND A SEGMENT OF STORM DRAIN CHANNEL, FOR A SITE LOCATED NEAR THE SOUTHWEST CORNER OF BRODIAEA AVENUE AND HEACOCK STREET (ASSESSOR'S PARCEL NUMBER 297-170-078).

WHEREAS, EPD Solutions, on behalf of Core 5 Industrial Partners, has filed an application for the approval of Variance application PEN16-0101 to allow for larger building in the Business Park (BP) zone due to the unique constraints of the project site as described in the title above; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, an Addendum / Initial Study checklist to a previously adopted Negative Declaration consistent with the California Environmental Quality Act (CEQA) was prepared for the project based on a thorough analysis of potential environmental impacts; and

WHEREAS, upon completion of a thorough development review process, including a comprehensive independent review of the Addendum by City staff, the project was appropriately agendized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, the public hearing notice for this project was published in the local newspaper on April 15, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on April 13, 2017. The public hearing notice for this project was also posted on the project site on April 17, 2017;

WHEREAS, on April 27, 2017, the Planning Commission held a public hearing to consider the application; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on April 27, 2017, including written and oral staff reports, public testimony and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity.

FACT: The project site is 6.71 acres and zoned Business Park (BP) which limits a single warehouse building to no more than 50,000 square feet. The project proposes a single building of 99,978 square feet on a 6.71 acre site. A site area of 6.71 acres could typically accommodate the development of two buildings of 50,000 square feet. However, this is not possible for the project site due to unique site constraints which include the site's triangular shape, the location of the storm drain channel along the eastern side of the site, and a 100 foot wide Department of Water Resources easement for the California Aqueduct and a 20 foot easement for an Eastern Municipal Water District sewer easement along the westerly side of the property.

The project proposes to develop a single warehouse distribution building of 99,978 square feet on 6.71 acre site. The shape of the developable area is irregular and poses challenges when designing a project that would maximize the available building area and still meet required setbacks, building separation, building height and parking requirements. Strict or literal interpretation and enforcement of the limitation on building area to 50,000 square feet or less would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity

2. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties in the vicinity and under the same zoning classification.

FACT: The project proposes to develop a single warehouse distribution building of 99,978 square feet on the 6.71 acre project site. The irregular

shape of the project site in combination with easements for the California Aqueduct and a sewer line pose challenges when designing a project that would meet required density, setbacks, building separation, building height and parking requirements. These exceptional circumstances do not apply to other nearby properties in the vicinity and under the same zoning classification.

3. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity and under the same zoning classification.

FACT: The project proposes to develop a single warehouse distribution building of 99,978 square feet on the 6.71 acre project site. The irregular shape of the project site in combination with easements for the California Aqueduct and a sewer line pose challenges when designing a project that would meet required density, setbacks, building separation, building height and parking requirements. Strict enforcement of the limitation on building size would deprive the applicant of privileges enjoyed by other property owners in the vicinity or under the same zoning classification.

4. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties in the vicinity and under the same zoning classification.

FACT: Approval of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties in the vicinity and under the same zoning classification. There are no other properties in the vicinity of the project or under the same zoning classification which also share the same site constraints (unique parcel shape and topography).

5. That the granting of the variance will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity; and

FACT: The granting of a variance will allow for a single building of 99,978 square feet which is no larger in square footage than two buildings of 50,000 square feet. Potential visual impacts from the parking can be screened by perimeter landscape and screen walls. The project as proposed will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity.

6. That the granting of a variance is consistent with the objectives and policies of the general plan and the intent of this title.

FACT: The granting of the variance is consistent with the objectives and policies of the General Plan and the intent of the Municipal Code. The General Plan land use designation for the site is Business Park. The

proposed 99,978 square foot warehouse building has been designed to satisfy the City's development standards for industrial development and the site development requirements of the Business Park zone. The proposed 99,978 square foot building is no larger in size than two 50,000 square foot buildings which would be permitted under the Business Park zone. The variance will provide for equity in the use of the project site property, and will prevent unnecessary hardships that might result from a strict or literal interpretation and enforcement of certain regulations.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-24, and thereby:

1. **RECOGNIZE** that Variance application PEN16-0101 has been included in the project description of the Addendum to a previously adopted Negative Declaration and has therefore been fully analyzed pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
2. **APPROVE** Variance application PEN16-0101 based on the findings contained in this resolution.

APPROVED this 27th day of April, 2017.

Brian Lowell
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

City of Moreno Valley
California Environmental Quality Act (CEQA)
Initial Study (IS) / Addendum
Brodiaea Business Center
(Case Numbers PA16-0075 and P16-114)

Lead Agency:

City of Moreno Valley
Community & Economic Development Department
Planning Division
14177 Frederick Street
Moreno Valley, California 92552
Jeff Bradshaw, Associate Planner, 951-413-3224

Project Applicant:

Core5 Industrial Partners
17871 Mitchell North, Suite 200
Irvine, California 92614

CEQA Consultant:

Environment Planning Development Solutions, Inc. (EPD)
2030 Main Street, Suite 1200
Irvine, California 92614

April 6, 2017

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- Appendix F: Riverside County Airport Land Use Commission Development Review – Director’s Determination
- Appendix G: Water Quality Management Plan
- Appendix H: Preliminary Drainage Study
- Appendix I: Trip Generation Analysis
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Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

ACRONYMS & ABBREVIATIONS

ACM	asbestos-containing material
ALUC	Airport Land Use Commission
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
BFE	Base Flood Elevation
BMP	Best Management Practice
Caltrans Handbook	2011 California Airport Land Use Planning Handbook
CalEEMod	California Emissions Estimator Model
ALUP	Airport Comprehensive Airport Land Use Plan
CBC	California Building Code
CBP	Centerpointe Business Park
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO ₂	carbon dioxide
CUP	Conditional Use Permit
GHG	greenhouse gas
gpd	gallons per day
LBP	lead-based paint
LID	Low Impact Development
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation Monitoring and Reporting Program
MSHCP	Multiple Species Habitat Conservation Plan
MTCO _{2e}	metric tons of carbon dioxide equivalent
MW-HR	megawatt-hour
NAHC	Native American Heritage Commission
NEPS	Narrow Endemic Plant Species
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
PDF	Project Design Feature
PM-2.5	fine particulate matter
PM-10	inhalable particulate matter
PPP	Plans, Programs, and Policies
PRA	Paleontological Records Assessment
ROG	reactive organic gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SBCM	San Bernardino County Museum
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SO ₂	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
TUA	Traditional Use Area
USFWS	U.S. Fish & Wildlife Service
WQMP	Water Quality Management Plan

1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

This Initial Study has been prepared in accordance with the following:

- California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et seq.);
- California Code of Regulations, Title 14, Division 6, Chapter 3 (State CEQA Guidelines, Sections 15000 et seq.); and

Pursuant to CEQA, this Initial Study has been prepared to analyze the potential for significant impacts on the environment resulting from implementation of the proposed building. This Initial Study informs City decision-makers, affected agencies, and the public of potentially significant environmental impacts associated with the implementation of the project.

Pursuant to Sections 15051 and 15367 of the CEQA Guidelines, the City of Moreno Valley is the Lead Agency for CEQA compliance associated with the project because it will approve, carry out, and implement the project and will be the first agency to approve the project. An agency may prepare an addendum to a CEQA document pursuant to CEQA Guidelines Section 15164 that states, in pertinent part, that: "The lead agency [...] shall prepare an addendum to a previously certified [CEQA document] if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent [CEQA document] have occurred." An agency may prepare an addendum to document its decision that a subsequent CEQA document is not required. (CEQA Guidelines Section 15164, subdivisions (a) and (e) and Section 15162, subdivision (a)).

Based on the analysis in this Initial Study and Addendum, the City of Moreno Valley determined that the potential impacts of the Proposed Project were previously analyzed in or are substantially similar to the impacts analyzed in the prior adopted 2005 Negative Declaration (ND; Adopted ND) prepared for the project and that none of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply. The City of Moreno Valley determined that they would prepare this Addendum to: (1) evaluate whether the project's environmental impacts were already analyzed in the prior Negative Declaration; (2) document City's findings with respect to the project and its environmental determinations; and, (3) evaluate and document that a new, supplemental or subsequent EIR, Negative Declaration (ND), or other CEQA document was not warranted.

This Addendum is the appropriate CEQA documentation for the project because:

- the project would not lead to increased environmental impacts beyond those that are already identified in the ND;
- the project does not modify previously-analyzed impacts or findings in any substantive way;
- no new mitigation measures are required;
- none of the conditions identified in Public Resources Code Section 21166 or Section 15162 of the CEQA Guidelines apply; and,
- no new significant adverse project-specific or cumulative impacts in any environmental areas were identified, nor would any project-specific or cumulative impacts in any environmental areas be made worse as a result of implementing the project.

None of the conditions described in Section 15162 of the CEQA Guidelines have occurred. Specifically, there have not been: (1) changes to the project that require major revisions to the

1.0 Introduction

prior ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; (2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions to the previous ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or (3) the availability of new information of substantial importance relating to significant effect or mitigation measures or alternatives that was not known and could not have been known when the ND was adopted as complete.

Project Design Features (PDFs) and Standard Conditions/Existing Plans, Programs, or Policies (PPPs)

Throughout the impact analysis in this Initial Study, reference is made to 1) applicant-initiated Project Design Features (PDFs); 2) existing Standard Conditions applied to all development on the basis of federal, state, or local law; and (3) Existing Plans, Programs, or Policies currently in place which effectively reduce environmental impacts. Standard Conditions and Existing Plans, Programs, or Policies are collectively identified in this document as PPPs. Where applicable, PDFs and PPPs are listed to show their effect in reducing potential environmental impacts.

1.2 DOCUMENT ORGANIZATION

This IS/Addendum includes the following sections:

Section 1.0 Introduction

Provides information about CEQA and its requirements for environmental review and explains that an Addendum was prepared by the City of Moreno Valley to evaluate the proposed project's potential to impact the physical environment.

Section 2.0 Project Setting

Provides information about the proposed Project's location and background. includes a description of the proposed project's physical features and construction and operational characteristics.

Section 3.0 Project Description

Includes a description of the proposed project's physical features and construction and operational characteristics.

Section 4.0 Environmental Checklist

Includes the Environmental Checklist and evaluates the proposed project's potential to result in significant adverse effects to the physical environment.

2.0 PROJECT SETTING

2.1 PROJECT LOCATION

The 6.71-acre Project Site is in the incorporated City of Moreno Valley in Riverside County. The Project Site is located at the southwest corner of the intersection of Brodiaea Avenue and Heacock Street (APN 297-170-078). The site is within the Centerpointe Business Park (CBP) site in west Moreno Valley, which is made up of large warehousing and distribution center buildings. Regional location and local vicinity maps are provided in Figure 1, *Regional Location Map*, and Figure 2, *Local Area Map*, respectively.

2.2 EXISTING LAND USES

The Project Site is vacant with minimal improvements, including two driveways, fencing and a pedestrian and bicycle path. The existing driveways provide access off of Brodiaea Avenue, with one at the northeast corner of the site and one at the northwest corner.

The Site is bordered by fencing along the basin to the west, along the sidewalk to the north and along the east property line. Street lights border the sidewalk to the north. A publicly accessible concrete pedestrian and bicycle path has been constructed onsite along the easterly property, west of Heacock Street and the Heacock Channel.

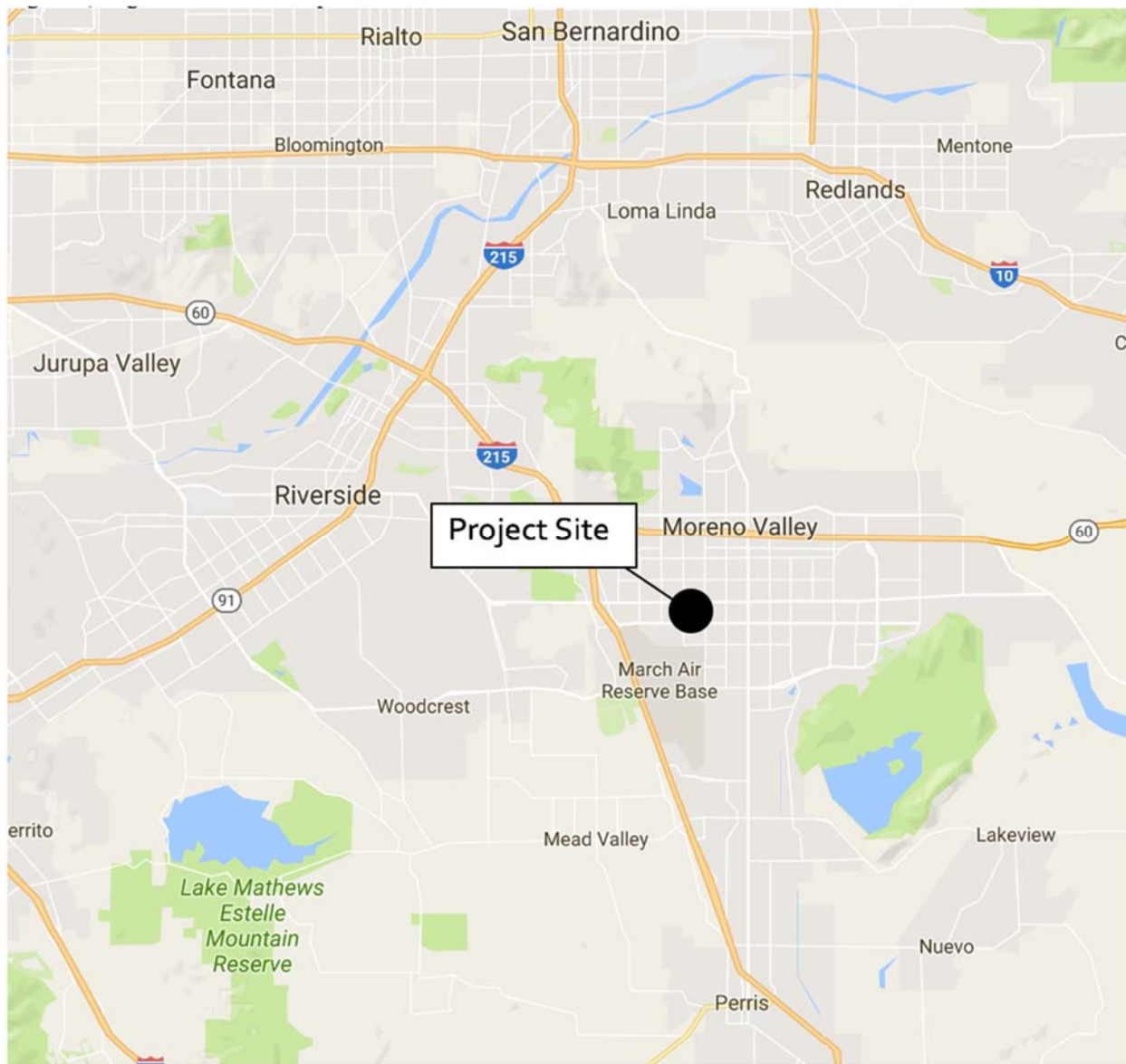
A 100-footwide easement traverses the site parallel to the eastern boundary, held by the Department of Water Resources (DWR) for the California Aqueduct. The 100-foot DWR easement includes a 20-footwide Eastern Municipal Water District (EMWD) easement. In this 100-foot easement area, no structures or trees are permitted, but paving and other surface-level are allowed.

The existing topography is relatively flat with an approximate slope of 1.5% to the southeast. The Site has an approximate ground surface elevation of 1,550 feet above mean sea level (MSL). Surface water drainage at the site is characterized by sheet flow along the existing ground contours to the southeast corner of the project site. The site is not impacted by any off-site flows. Existing site conditions are depicted in Figures 3a and 3b: *Existing Site Photographs* and *Table 1: Site Information* below.

Table 1: Site Information

Applicant	Core5 Industrial Partners
Assessor's Parcel Number (APN)	297-170-078
Site Area	6.71 acres
Existing Land Use	Vacant
General Plan Designation	Business Park/Light Industrial (1.00 FAR)
Zoning Designation	Business Park (BP)

Figure 1, Regional Location Map



Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

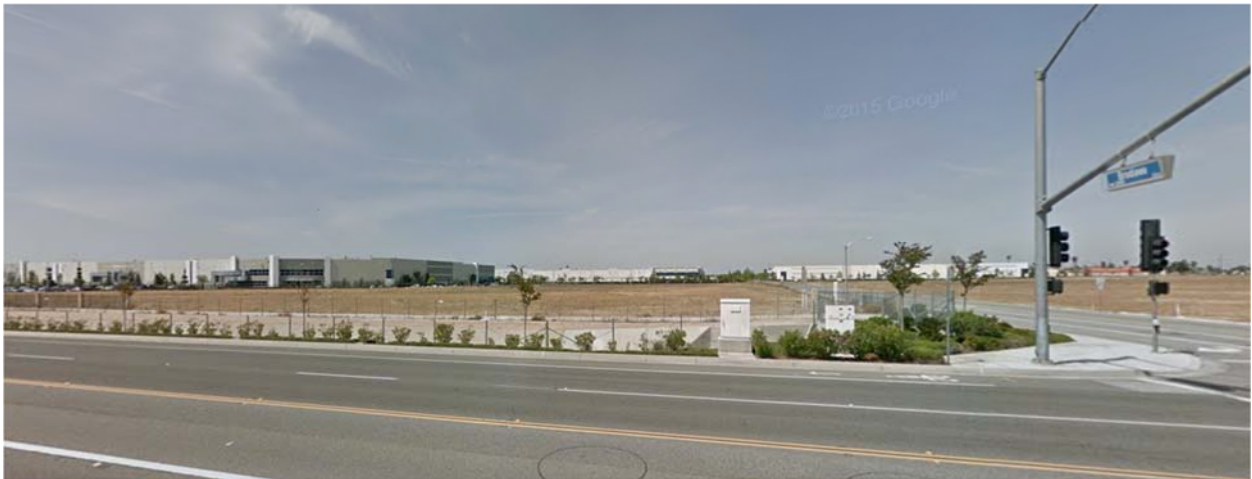
Figure 2, Local Area Map



Figure 3a, Existing Site Photographs



View A: From the intersection of Brodiaea and Heacock



View B: From Heacock Street

Figure 3b, Existing Site Photographs



View C: From Brodiaea Avenue



View D: Heacock Channel from Brodiaea Avenue

Figure 4, Surrounding Land Uses



2.3 SURROUNDING LAND USES

Surrounding land uses include and are illustrated in Figure 4 Surrounding Land Uses:

- North: Brodiaea Avenue with vacant land beyond.
- West: Drainage basin at the southeast corner of Brodiaea Ave. and Gilbert St. and the Moreno Valley Delivery Distribution Center (DDC) Post Office Building.
- South: Parking lot for the Moreno Valley DDC Post Office Building and drainage basin.
- East: Concrete-lined Heacock Channel followed by Heacock Street and single family residential development.

The Project Site is primarily located within a developed business park and industrial area. Much of this area is within the CBP, which is comprised of large industrial and warehouse distribution facilities.

East of Heacock Street is a large residential area. This neighborhood is made up primarily of single family homes. Three schools are in the community, including Serrano Elementary School, Bader Springs Middle School and Chaparral Hills Elementary School.

2.4 EXISTING GENERAL PLAN LAND USE AND ZONING DESIGNATION

Land uses on the Project Site and surrounding parcels are governed by the Moreno Valley General Plan (General Plan) and Moreno Valley Municipal Code (Municipal Code). The Site's General Plan land use designation is Business Park/Light Industrial to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities.

The Site's zoning designation is Business Park (BP). The primary purpose of the Business Park (BP) district is to provide for light industrial, research and development, office-based firms and limited supportive commercial uses in an attractive and pleasant working environment and a prestigious location. This district is intended to provide a transition between residential and other sensitive uses and more intense industrial and warehousing uses. Pursuant to the Municipal Code, Permitted Uses Table 9.02.020-1, wholesale, storage, and distribution uses up to 50,000 of less are permitted in the Business Park (BP) zoning district.

2.5 PROJECT BACKGROUND

2.5.1 Approved Project

The Project Site was originally analyzed as Building Site #7 of the overall CBP project. The 126-acre CBP project was approved by the City in 2005 and an Initial Study/ Negative Declaration (Adopted ND) for development 8 industrial buildings and one future industrial building ranging from and a total of 2,312,136 square feet (SF) of industrial buildings in an area bound by Cactus Avenue, Frederick Street, Heacock Street, and Alessandro Boulevard. The approved CBP project included nine different lots for the development of eight industrial building ranging from 80,620 SF to 779,016 SF. One lot (Building Site #7; Proposed Project Site) was analyzed for future industrial development and an 82,994 SF building footprint was assumed for the site. See *Table 2: Previously Analyzed Project - Centerpointe Business Park* below:

Table 2: Previously Analyzed Project - Centerpointe Business Park

Building #	Area (SF)
1	80,860
2	106,702
3	188,209
4	779,016
5	180,043
6	532,926
7 (Development Potential)	82,994
8	231,382
9	130,002

2.5.2 Centerpointe West 2012

In 2012, the western portion of the CBP (west of Graham) proceeded with a project that changed the 2005 plans of Buildings #1, 2, 3, and 4 (2012 Project). The 2012 Project combined Buildings #1, 2, and 3 into a single 601,810 SF warehouse facility. The 2012 Project also included the renovation and adding of an additional 501,430 SF to Building #4. Building Site #7 was not explicitly included in the 2012 Project; however, Building Site #7 was included in the 2012 Project's cumulative impact analysis.

3.0 PROJECT DESCRIPTION

Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

3.1 PROPOSED PROJECT

3.1.1 Industrial Warehouse Facility

The Brodiaea Business Center project (Proposed Project) proposes to develop a single story 99,978 SF warehouse facility on the currently undeveloped Building #7 site of the CBP. This would represent a 16,984 SF increase in what was previously approved for the Project Site. The building would be rectangular in shape and would be located in the northeast corner of the Project Site. The building is proposed to be concrete tilt-up with a maximum height of 40 feet. The facility would also include approximately 5,000 SF of office space. The office area would be located in the northwest corner of the building near Brodiaea Avenue and the proposed parking areas. The Proposed Project would also include a trash enclosure located at the southern end of the building as well as a trash compactor located off the eastern side of the building near the parking area. Seventeen 9-foot by 10-foot dock doors would serve as access and loading points. 13 of these dock doors would be located along the western edge of the building and the remaining four doors would be located along the southern building edge. A site plan is provided in Figure 6, *Site Plan* and building elevations are depicted in Figure 7a and 7b, *Conceptual Elevations*.

3.1.2 Circulation & Parking

As depicted in Figure 6, the building would be located on the corner Heacock Street and Brodiaea Avenue. The site would have two unsignalized access driveways from Brodiaea Drive. These driveways would serve as the truck access points for the Project Site as truck traffic would be prohibited on Heacock Street. The driveway closest to the intersection of Brodiaea and Heacock would be 35 feet in width and the driveway located farther from the intersection would be smaller at 30 feet in width. Parking for the proposed facility would be provided by 87 parking stalls that would be located in the northwest corner of the Project Site. Passenger traffic would reach these parking stalls using the 30-foot driveway off Brodiaea Avenue. 25 spaces are provided for tractor trailer trucks. A previous emergency access drive would provide access from Brodiaea Avenue to the parking lot along the eastern side of the building.

3.1.3 Walls & Fencing

Walls and fences are proposed for security reasons and to help aesthetically mask storage areas and trucking lanes from the surrounding land uses. The walls and fences include an 8-foot-tall sliding tubular steel fence proposed at the entrance to the main shipping trailer parking area. A 12-foot tall tubular steel fencing is also proposed to separate the main shipping trailer parking area from the main employee and visitor parking area. A 12-foot tall screen wall is proposed south of the building parallel to Heacock Street to screen the parking and loading areas from views along Heacock Street. See provided *Architectural Site Plan and Elevations* for further details. In addition to the walls and fencing, trees and shrubs would further screen the building site, as described below.

3.1.4 Landscaping

The Proposed Project would feature 15,287 SF of landscaping or approximately 17.5% percent of the entire site. Landscape areas would be mainly concentrated around the edges of the Project Site as buffers between the Project Site and the surrounding streets and the drainage channel to the east. Along the Brodiaea Avenue is a proposed 20-foot landscape buffer. The main parking area at the northwest corner of the Project Site would also include ground cover and decorative trees. Along the eastern building elevation, trees are proposed against the building to soften the building elevation. A 36-foot buffer of landscaping is also proposed between the fire access road and the bicycle and pedestrian trail. This landscaping buffer would include decorative trees to further screen the building from the motorists along Heacock Street. Figure 8, *Landscape Plan* illustrates the proposed landscaping areas in greater detail.

IN THE CITY OF MORENO VALLEY

BRODIAEA BUSINESS CENTER - PM32326

CONCEPTUAL GRADING PLAN

OWNER:
 COMPANY: PROLOGIS DEVELOPMENT SERVICES, INC
 CONTACT: DAMON AUSTIN
 ADDRESS: 1777 CENTER COURT DR., N #100
 CERRITOS, CA 90703
 PHONE: (562) 345-9200

APPLICANT:
 COMPANY: CORE 5
 CONTACT: ALAN SHARP
 ADDRESS: 17871 MITCHELL NORTH, SUITE 200
 IRVINE, CA 92614
 PHONE: (951) 284-0273

ENGINEER:
 COMPANY: ALBERT A. WEBB ASSOCIATES
 CONTACT: DJ ARELLANO
 ADDRESS: 3788 MCCRAY ST
 RIVERSIDE, CA 92506
 PHONE: (951) 886-1070
 FAX: (951) 788-1256

ARCHITECT:
 COMPANY: RSA ARCHITECTS
 CONTACT: MIKE GILL
 ADDRESS: 15231 ALTON PARKWAY, SUITE #100
 IRVINE, CA 92618
 PHONE: (949) 863-1770
 FAX: (949) 863-0851

TOPOGRAPHY:
 INLAND AERIAL SURVEY
 DATED 8-15-16

A.P.N.
 297-170-07B-5

ACREAGE
 GROSS SITE AREA: 6.71 AC.
 NET SITE AREA: 6.71 AC.

EARTHWORK ESTIMATE:
 CUT: 31,380 CY
 FILL: 29,110 CY
 SHRINKAGE: 2,270 CY
 NET: 0 CY BALANCED

LEGEND

---	PROPOSED SCREEN WALL
-o-o-	PROPOSED FENCE
---	GRADEBREAK/RIDGELINE
---	FLONLINE
---	EXISTING CONTOURS
---	PROPOSED CONTOURS
---	EXISTING WATER LINE
---	EXISTING GENERATOR LINE
---	EXISTING STORM DRAIN
---	EXISTING GAS LINE
---	EXISTING ELECTRICAL LINE
FS	FINISH SURFACE
FL	FLOW LINE
GB	GRADE BREAK
GRD	GROUND
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
RA	RIGHT OF WAY
TYP	TYPICAL

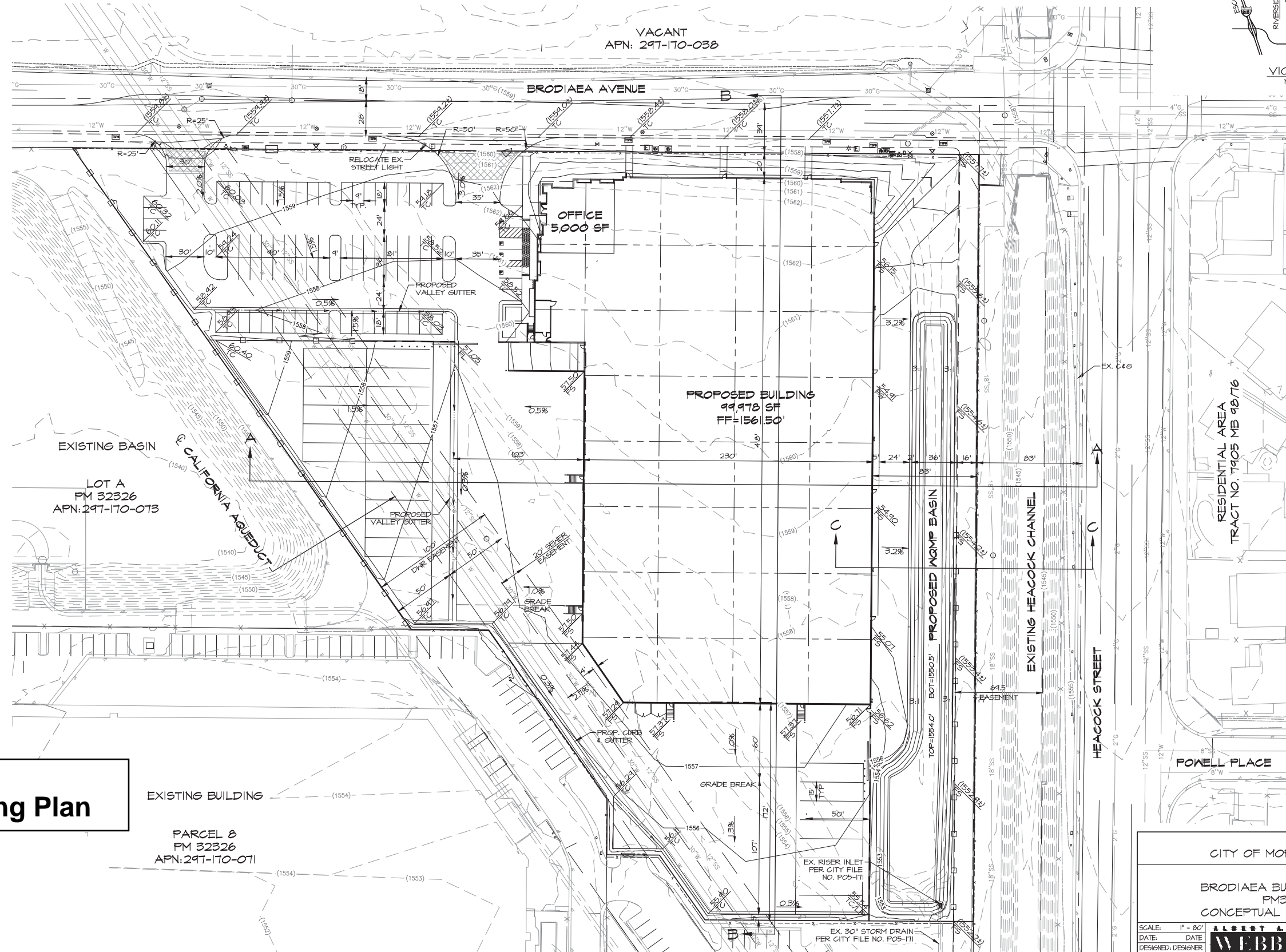
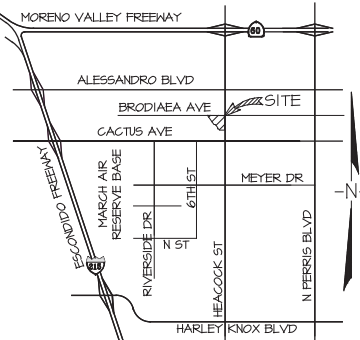
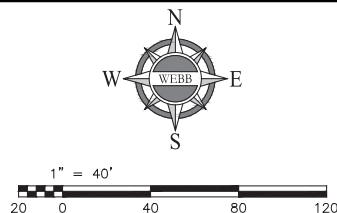
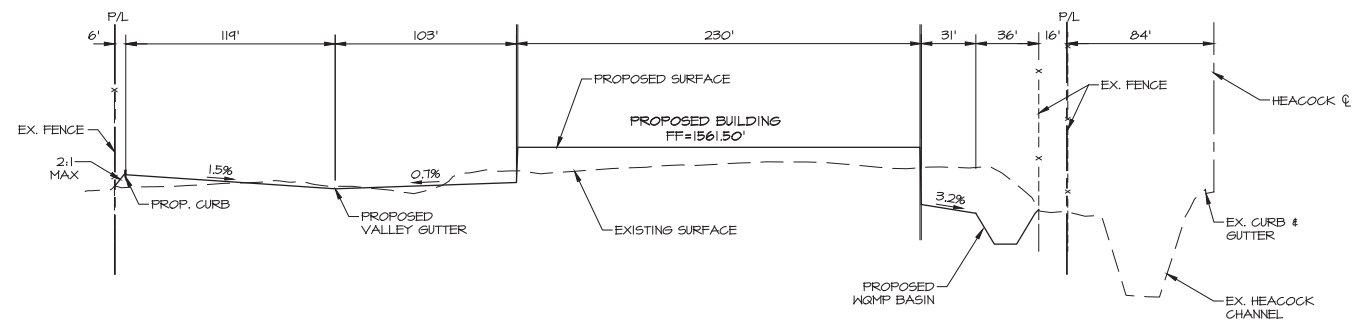


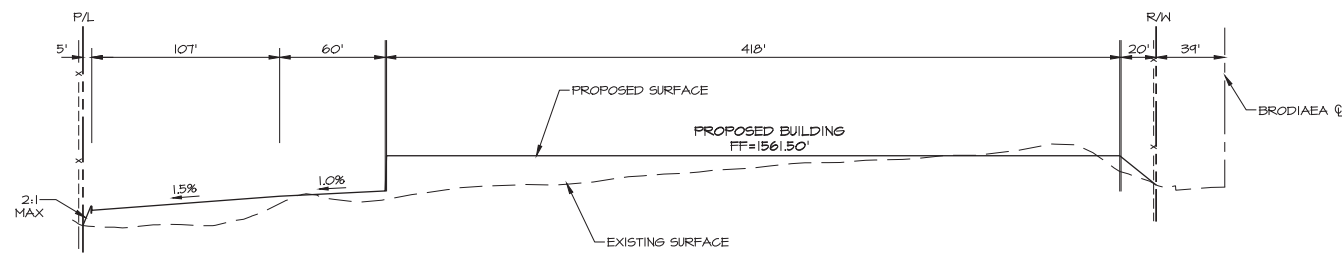
Figure 5a
Conceptual Grading Plan



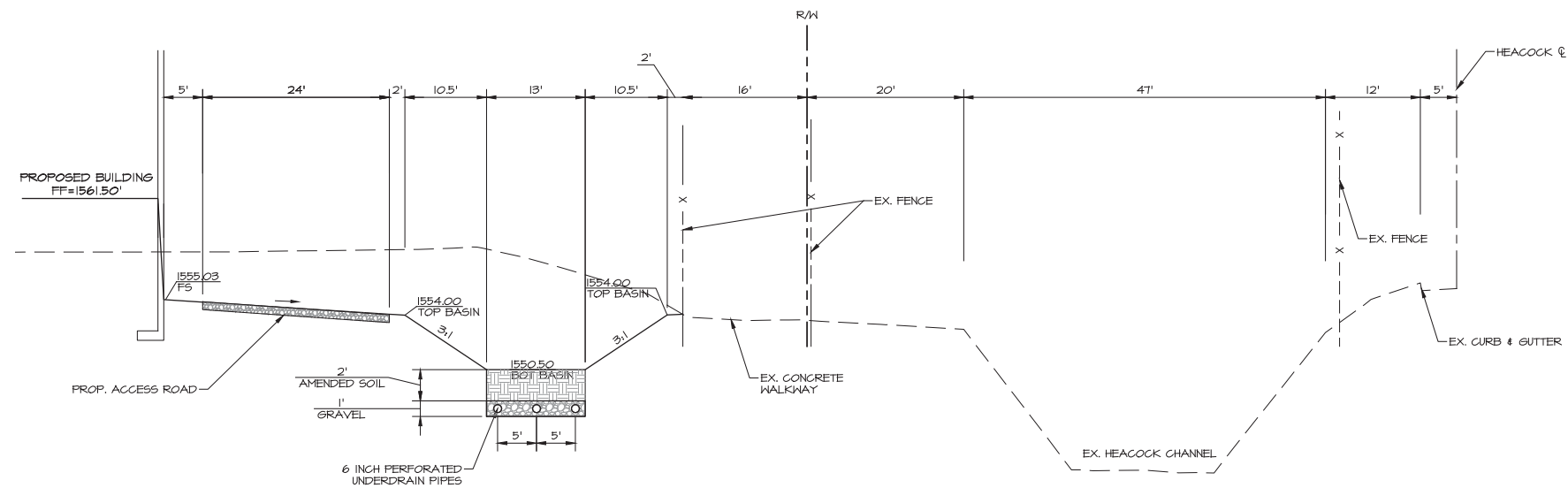
CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM32326 CONCEPTUAL GRADING PLAN			
SCALE: 1" = 40'	DATE:	ENGINEERING CONSULTANTS	W.O. 2016-0236
DESIGNED: DESIGNER	DATE:	3788 MCCRAY STREET	SHEET 1
CHECKED: RB	DATE:	RIVERSIDE, CA 92506	OF 2 SHEETS
PLN CK REF: REF	DATE:	PH: (951) 886-1070	DWG. NO.
FB: FB	DATE:	FAX: (951) 788-1256	



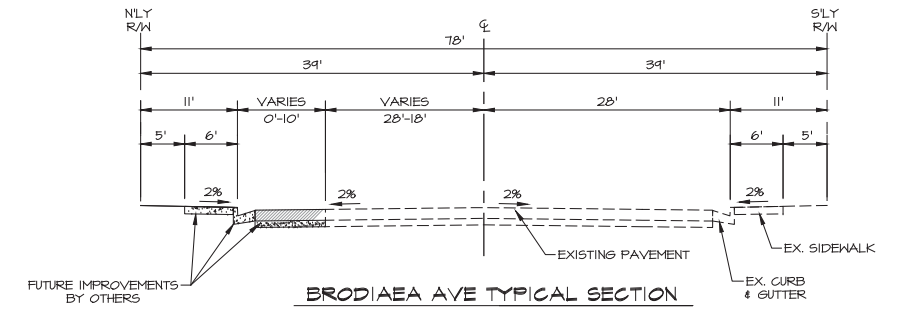
SECTION A-A
NOT TO SCALE



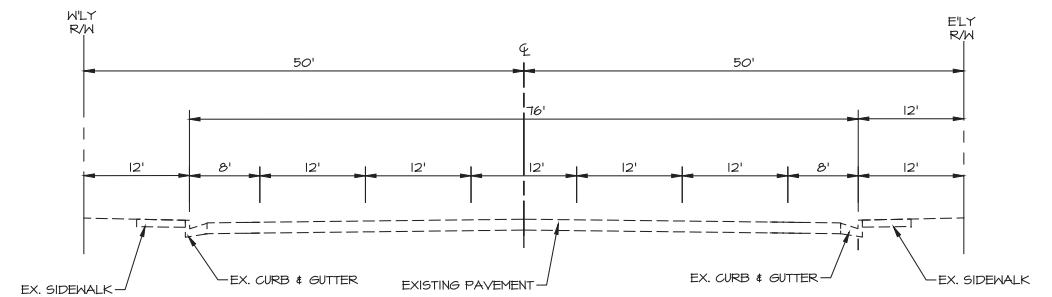
SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE



BRODIAEA AVE TYPICAL SECTION
INDUSTRIAL COLLECTOR STREET
STD. NO. MVS1-106A-0, NOT TO SCALE



HEACOCK ST TYPICAL SECTION
ARTERIAL STREET
STD. NO. MVS1-104A-0, NOT TO SCALE

Figure 5b
Conceptual Grading Plan

CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM 32326 CROSS SECTIONS			
SCALE: 1" = 20'	DATE:	ENGINEERING CONSULTANTS 3788 McCORAY STREET RIVERSIDE CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 2016-0236
DESIGNED: DESIGNER	DATE:	WEBB ASSOCIATES	SHEET 2
CHECKED: RB	DATE:		OF 2 SHEETS
PLN CK REF: REF	DATE:		DWG. NO.
F.B.	F.B.		

VICINITY MAP:



SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO DRIVEWAYS
- 4'-0" DEDICATED CITY SIDEWALK AREA
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE CURB LINES
- ON-SITE PARKING AND TRAILER STRIPPING

KEYNOTES:

1. 8'-0" HIGH SLIDING TUBE STEEL FENCE
2. EXTERIOR GALVANIZED STEEL U-SHAPED BIKE RACK
3. CONCRETE PAINTED TRASH ENCLOSURE WITH SOLID GATE
4. 12'-0" HIGH CONCRETE PAINTED SCREENWALL, PAINTED TO MATCH THE BUILDING

UTILITY PROVIDERS / AGENCIES:

- ELECTRICAL SERVICES:**
 MORENO VALLEY ELECTRICAL
 P.O. BOX 89325
 MORENO VALLEY, CA 92552
 T: 951-413-3206
- DOMESTIC WATER:**
 FRONTIER
 2270 TRUMBULE ROAD
 PERRIS, CA 92572
 T: 951-928-3777, EXT 4429
- TELEPHONE SERVICE:**
 150 SOUTH JUANITA
 HEWLET, CA 92543
 T: 951-928-9412
- FIRE PROTECTION:**
 CITY OF MORENO VALLEY
 14177 FREDERICK STREET
 MORENO VALLEY, CA 92552
 T: 951-413-3461
- NATURAL GAS SERVICES:**
 THE GAS COMPANY
 25200 TRUMBULE ROAD
 ROMOLAND, CA 92585
 T: 951-928-2801
- SEWAGE DISPOSAL SEWER:**
 EAST MUNICIPAL WATER DISTRICT
 2270 TRUMBULE ROAD
 PERRIS, CA 92572
 T: 951-928-3777, EXT 4429
- CABLE TV:**
 TIME WARNER
 1500 S AUTO CENTER DRIVE
 ONTARIO, CA 91761
 T: 909-975-3402

PROJECT DATA:

- NET SITE AREA:** 292,496 SF
 6.71 AC
- BUILDING AREA:** 99,978 SF
- OFFICE:** 5,000 SF
- WAREHOUSE:** 94,978 SF
- PUMP/HOUSE:** 10 SF
- TOTAL:** 99,978 SF
- NET LOT COVERAGE:** 34.18 %
- PARKING REQUIRED:** 20 STALLS
- WAREHOUSE:** 1-20,000 SF (1 / 1,000 SF): 20 STALLS
- FRONTIER:** 20-40,000 SF (1 / 2,000 SF): 10 STALLS
- TOTAL PARKING REQUIRED:** 30 STALLS
- TOTAL STALLS PROVIDED:** 87 STALLS
- BICYCLE PARKING PROVIDED:** 4 BIKES
- TRAILER PARKING PROVIDED:** 17 TRAILERS
- LANDSCAPE PROVIDED:** 51,287 SF OR 17.53 %

LEGAL DESCRIPTION:

TAKEN FROM FIRST AMERICAN TITLE INSURANCE COMPANY PRELIMINARY TITLE REPORT ORDER NO. NCS-805434-SF, DATED AUGUST 4, 2016.

THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS:

PARCEL 7 OF PARCEL MAP 32326, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP ON FILE IN BOOK 216, PAGES 34 TO 42, INCLUSIVE OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM THAT PORTION OF PARCEL 7 AS CONVEYED TO THE UNITED STATES POSTAL SERVICE, BY DEED RECORDED FEBRUARY 4, 2008 AS INSTRUMENT NO. 2008-054491 OF OFFICIAL RECORDS.

DEVELOPER / OWNER:
 CORE FIVE
 17871 MITCHELL STREET NORTH,
 SUITE 200
 IRVINE, CA 92614
 CONTACT: ALAN SHARP

PREPARED BY:
 RGA, OFFICE OF ARCHITECTURAL DESIGN
 15231 ALTON PARKWAY
 SUITE 100
 IRVINE, CA 92618
 CONTACT: MIKE GILL

GENERAL NOTES:

1. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED WITH ADDITIONAL LANDSCAPE.
2. ALL ROOF TOP EQUIPMENT SHALL BE SCREEN BY ROOF PARAPET OR ROOF SCREEN.
3. ALL ACCESS GATES SHALL BE ELECTRONICALLY OPERATED. TO BE PROVIDED WITH KNOX KEY SWITCHES FOR ACCESS.

ASSESSOR'S PARCEL NUMBERS:

297-170-078-5

ZONING INFORMATION

BUILDING: OFFICE / WAREHOUSE B-1W
 CONSTRUCTION TYPE: B-S-1F-1
 OCCUPANCY: B-S-1F-1
 ZONE: BP - BUSINESS PARK

RG A

Office of Architectural Design

15231 Alton Parkway, Suite 100
 Irvine, CA 92618

T 949-341-0920
 FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

PROJECT NAME

BRODIAEA AVENUE DEVELOPMENT

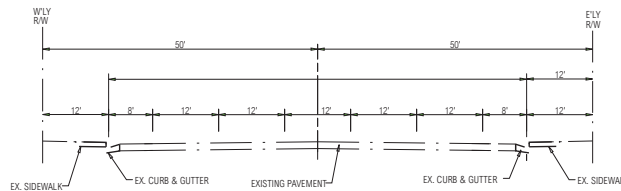
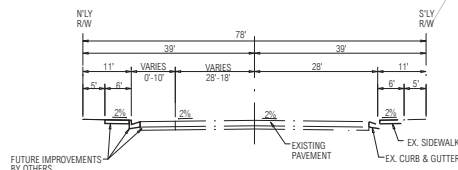
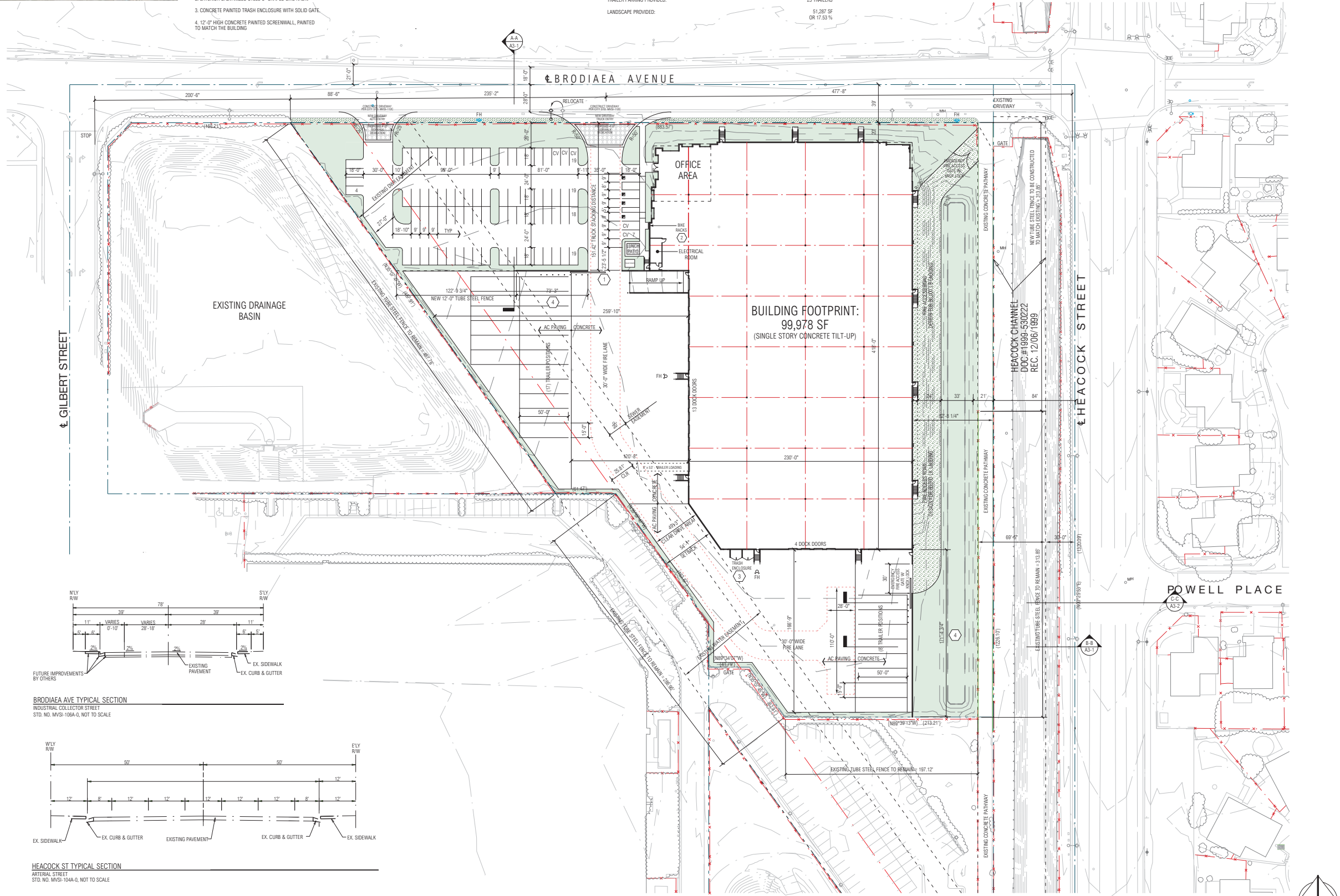
0000 BRODIAEA AVENUE
 CITY OF MORENO VALLEY, CA

CORE FIVE
 17871 MITCHELL STREET NORTH
 SUITE 200
 IRVINE, CA 92614
 CONTACT: ALAN SHARP

SD	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/16	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

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OWNER PROJECT NO:	00000.00
CAD FILE NAME:	16129-00-A1-1P
DRAWN BY:	MG
CHK'D BY:	DR
COPYRIGHT	RG A, OFFICE OF ARCHITECTURAL DESIGN
SHEET TITLE	

Figure 6 Site Plan



SITE PLAN

SCALE: 1" = 40'-0"

CONSULTANT

PROFESSIONAL SEALS

BRODIAEA AVENUE DEVELOPMENT

0000 BRODIAEA AVENUE
CITY OF MORENO VALLEY, CA

CORE FIVE
17871 MITCHELL STREET NORTH
SUITE 200
IRVINE, CA 92614
CONTACT: ALAN SHARP

SD	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/16	SCHEMATIC DESIGN
MARK		DESCRIPTION

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OWNER PROJECT NO:	00000.00
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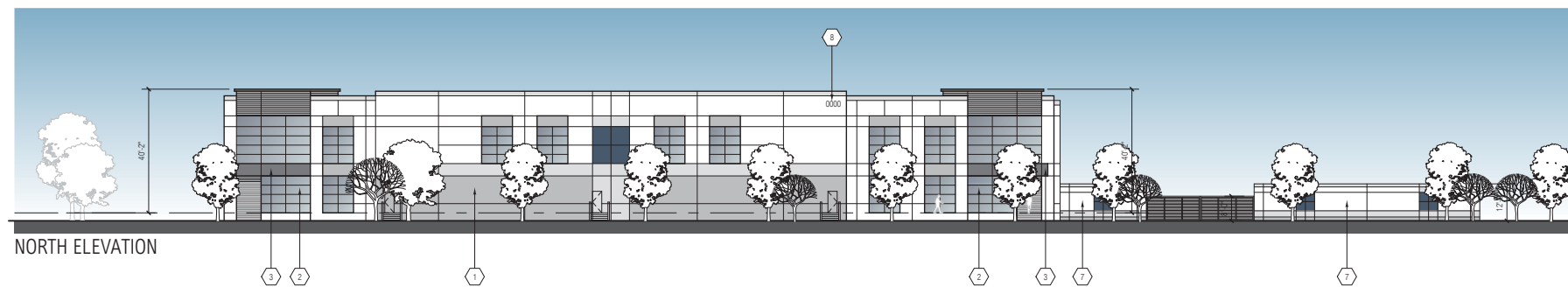
Figure 7a Elevations

KEYNOTES: (K)

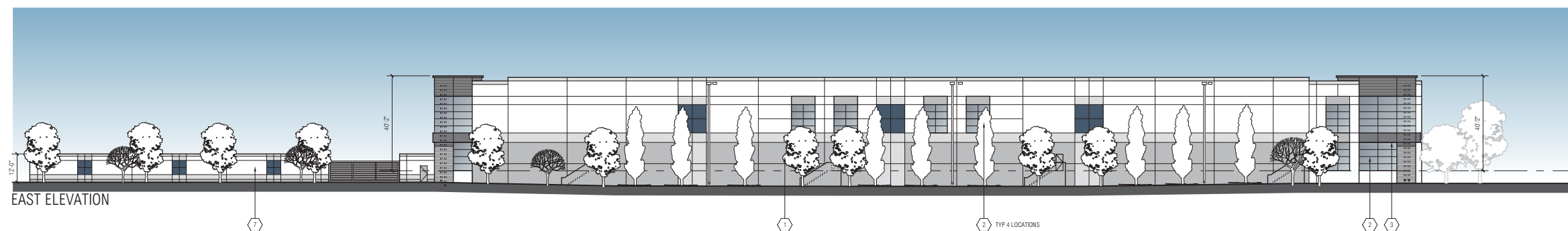
1. PAINTED CONCRETE TILT-UP PANELS W/ ACCENT REVEALS AS SHOWN.
2. REFLECTIVE BLUE GLASS IN CLEAR ANODIZED ALUMINUM MULLION SYSTEM.
3. ALUMINUM FINISHED CANOPY OVER ENTRY.
4. RECESSED ENTRY WITH PRIMARY GLASS ENTRANCE DOORS.
5. PAINTED 9'-0" X 10' DOCK HIGH VERTICAL LIFT METAL TRUCK DOOR ASSEMBLY WITH DOCK BUMPERS. SEE DOOR SCHEDULE.
6. PAINTED 12' X 14' GRADE LEVEL VERTICAL LIFT METAL TRUCK DOOR ASSEMBLY. SEE DOOR SCHEDULE.
7. CONCRETE TILT-UP SCREEN WALL PAINT AND REVEALS AS SHOWN TO MATCH BUILDING.
8. BUILDING ADDRESS LETTERS PER POLICE AND PLANNING DEPTS. ADDRESS TO BE SELF-LITE OR BY BUILDING LIGHTING.

FINISH SCHEDULE (F)

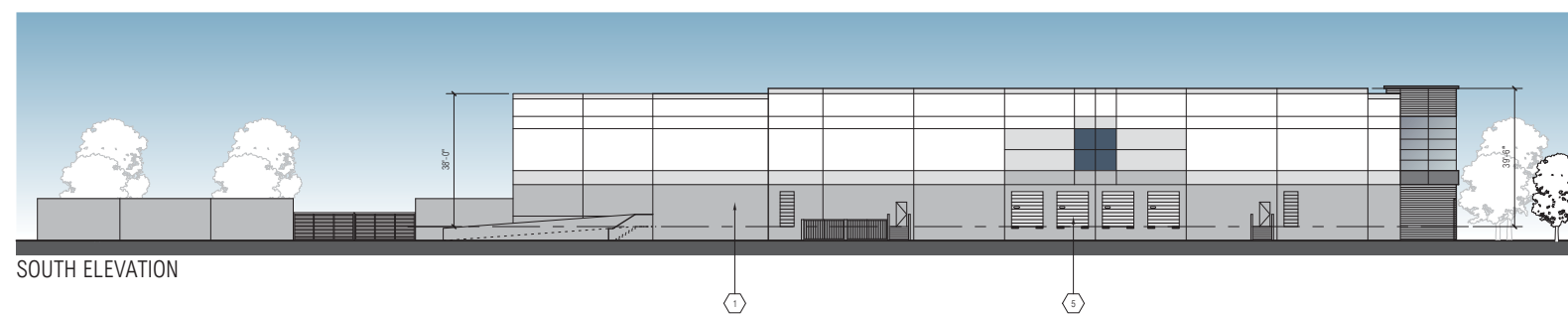
- | |
|--|
| 1. FIELD COLOR - FRAZEE COLORLIFE - CL 3211W WASH BASIN |
| 2. LIGHT ACCENT COLOR - FRAZEE COLORLIFE - CL 3233M CAPRICORN |
| 3. MEDIUM ACCENT COLOR - FRAZEE COLORLIFE - CL 3235D ROCK BOTTOM |
| 4. DARK ACCENT COLOR - FRAZEE COLORLIFE - CL 3236A ESTATE |
| 5. GLAZING / SPANDREL GLAZING - BLUE PACIFIC SOLORCOOL |
| 6. ALUM METAL CLADDING CANOPY - REYNOLDBOND TOYOTA SILVER |



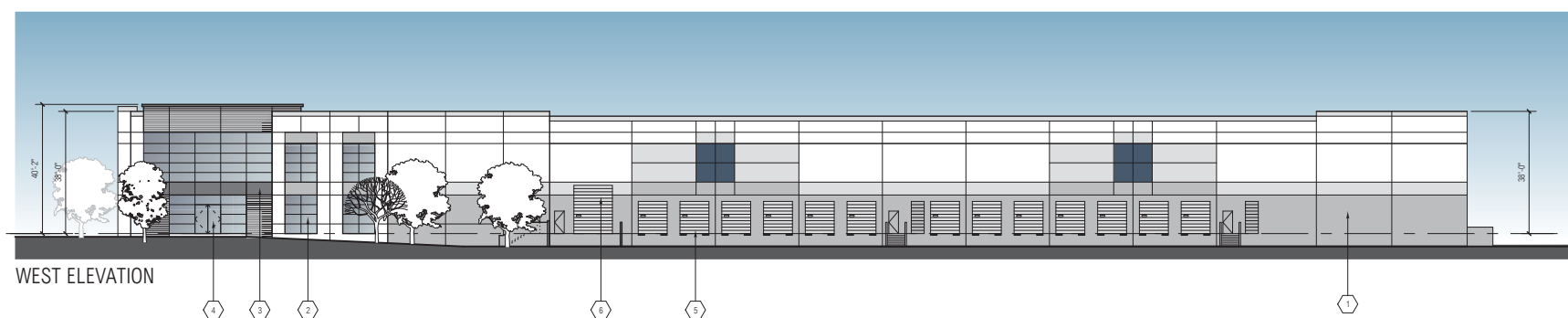
NORTH ELEVATION



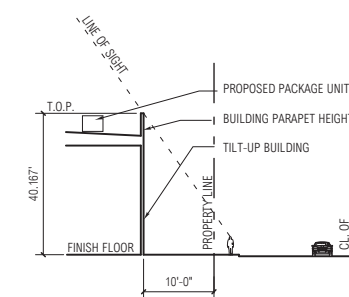
EAST ELEVATION



SOUTH ELEVATION



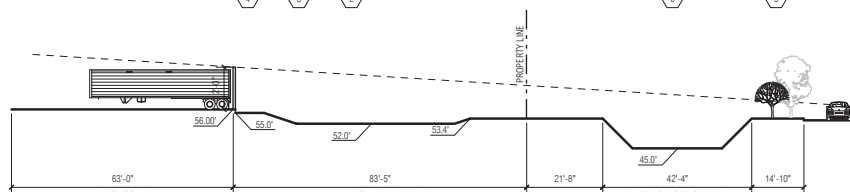
WEST ELEVATION



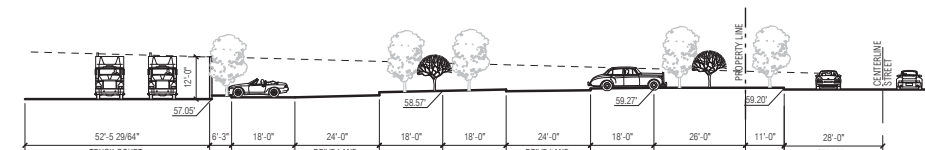
TYPICAL EQUIPMENT SCREEN LINE OF SIGHT (1)

SCALE 1" = 20'-0"

NOTE: LINE OF SIGHT TAKEN FROM 6'-0" ABOVE FINISH GRADE.



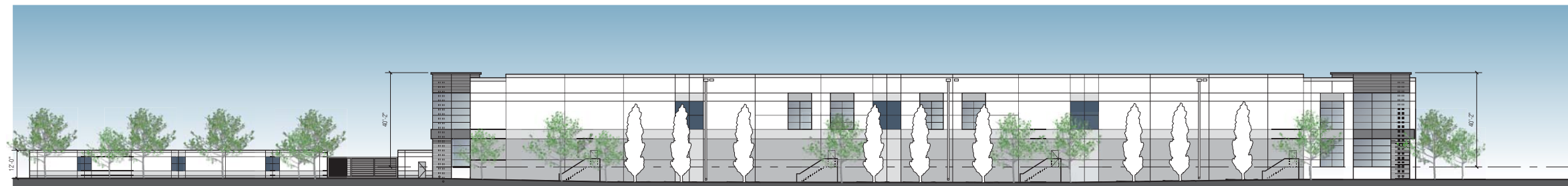
HEACOCK AVENUE STREET (EAST / WEST DIRECTION)



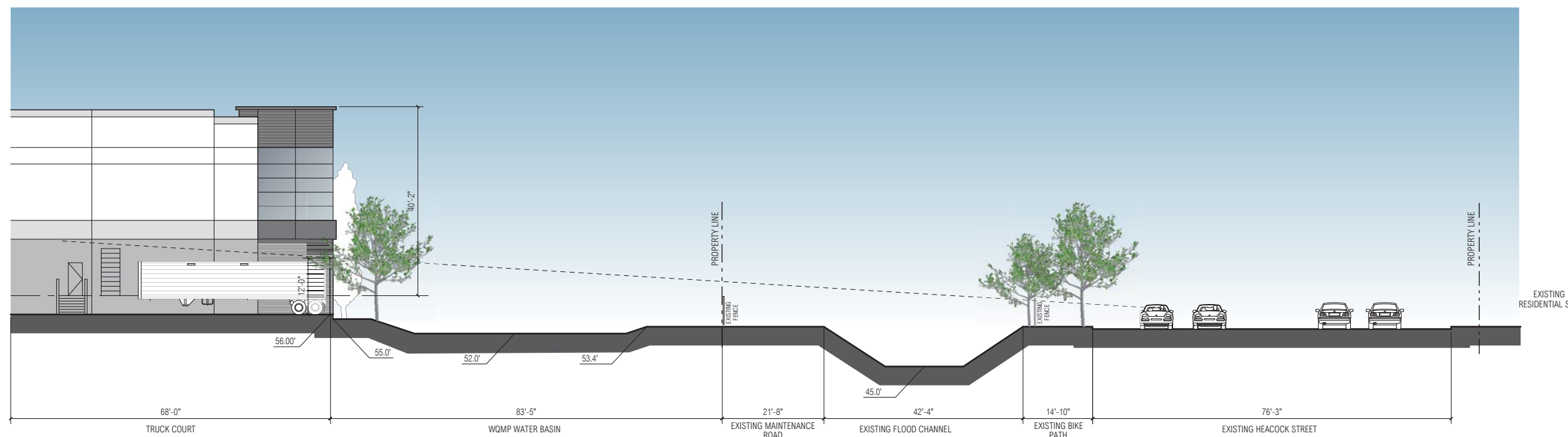
BRODIAEA AVENUE SECTION (NORTH / SOUTH DIRECTION)

FINISH SCHEDULE

- 1. FIELD COLOR - FRAZEE COLORLIFE - CL 3211W WASH BASIN
- 2. LIGHT ACCENT COLOR - FRAZEE COLORLIFE - CL 3233M CAPRICORN
- 3. MEDIUM ACCENT COLOR - FRAZEE COLORLIFE - CL 3235D ROCK BOTTOM
- 4. DARK ACCENT COLOR - FRAZEE COLORLIFE - CL 3236A ESTATE
- 5. GLAZING / SPANDREL GLAZING - BLUE PACIFIC SOLORCOOL
- 6. ALUM METAL CLADDING CANOPY - REYNOLDBOND TOYOTA SILVER



EAST ELEVATION
SCALE: 1" = 20'-0"



HEACOCK AVENUE STREET (EAST / WEST DIRECTION)
SCALE: 1" = 10'-0"

BRODIAEA AVENUE DEVELOPMENT

0000 BRODIAEA AVENUE
CITY OF MORENO VALLEY, CA

CORE FIVE
17871 MITCHELL STREET NORTH
SUITE 200
IRVINE, CA 92614
CONTACT: ALAN SHARP

MARK	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/16	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

RG PROJECT NO:	16129-00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	16129-00-A3-1P
DRAWN BY:	MG
CHK'D BY:	DR
COPYRIGHT	RG, OFFICE OF ARCHITECTURAL DESIGN
SHEET TITLE	

SHEET TITLE

Figure 7b Elevations

PLANTING LEGEND

TREES				
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS / REMARKS
	Cercidium 'Desert Museum' Blue Palo Verde	24" Box	6	L Multi
	Delonix reginae Desert Silk Tree	24" Box	13	L Multi
	Chilopsis salicifolia Cholla	24" Box	8	L Standard
	Cercocarpus arborescens Balkan Cypress	24" Box	19	L Standard
	Wisteria arborescens Tigon	15 Gal	16	L Multi
	Pinus caryocarpus Canary Island Pine	24" Box	14	M Standard
	Pinus jeffersonii London Pine	24" Box	10	M Standard

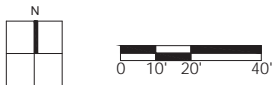
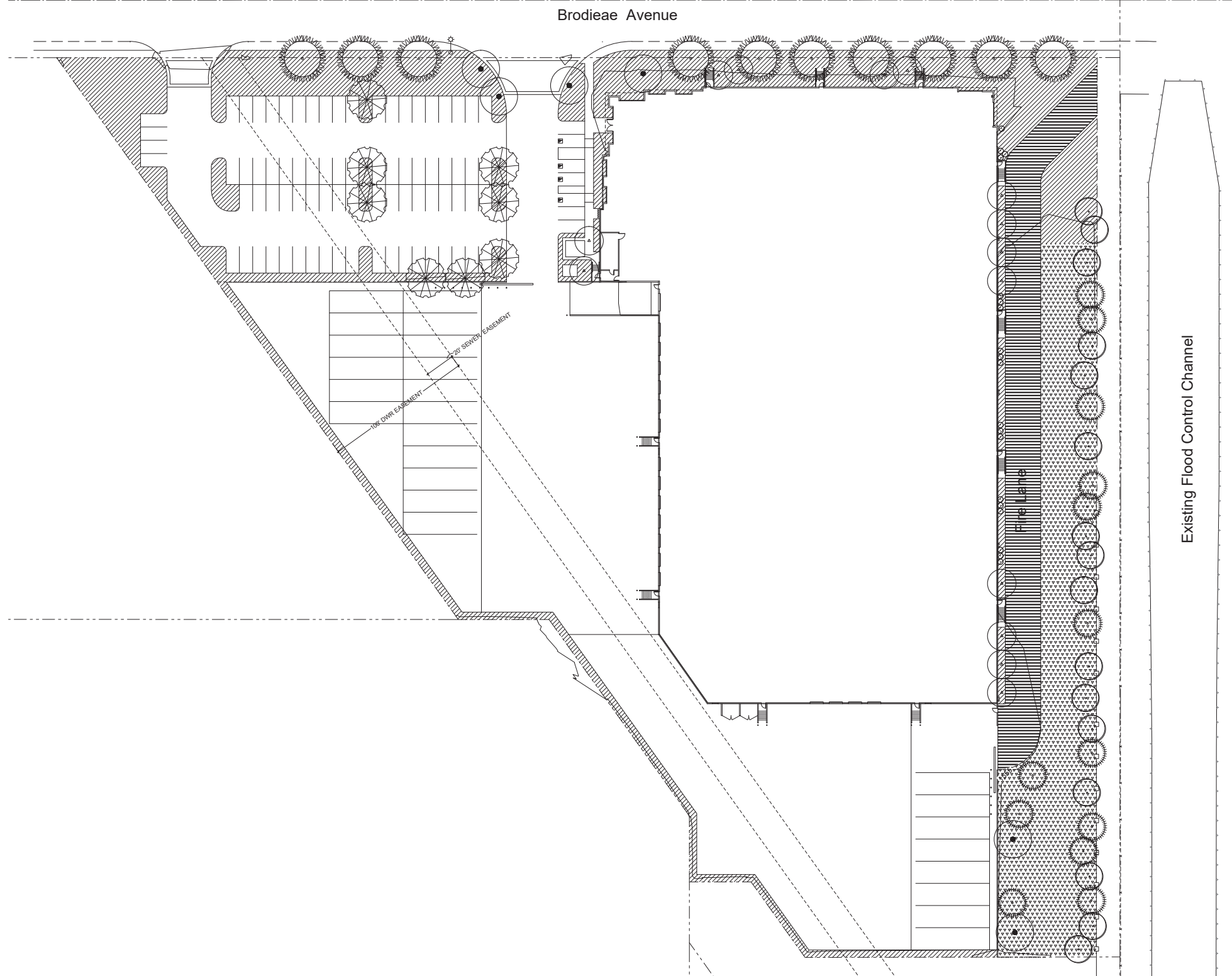
SHRUBS				
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS / REMARKS
	Asya inflexa	5 Gal	0	M
	Pinapple Guava	5 Gal	0	L
	Artemisia 'Desert Castle'	5 Gal	0	M
	Artemisia	5 Gal	0	M
	Calligonum 'Little John'	5 Gal	0	M
	Desert Silk Tree	5 Gal	0	L
	Encelia parsonsii	5 Gal	0	L
	Shrubbery	5 Gal	0	L
	Leucosiphon 'Green Cloud'	5 Gal	0	L
	Trava Ranger	5 Gal	0	M
	Leucosiphon 'Tricolor'	5 Gal	0	M
	Stemaria s. 'Tricolor Blue'	5 Gal	0	L
	Stemaria	5 Gal	0	L
	Salsola 'Alma Chokoma'	5 Gal	0	L
	Allen Choking Sage	5 Gal	0	L
	Salsola arbuscula	5 Gal	0	L
	Salsola arbuscula	5 Gal	0	L
	Prosopis juliflora	5 Gal	0	L
	Crataegus	5 Gal	0	L

ACCENTS				
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS / REMARKS
	Asya spp.	5 Gal	0	L
	Asya	5 Gal	0	L
	Asya	5 Gal	0	L
	Desert Willow	5 Gal	0	L
	Desert Yucca	5 Gal	0	L
	Desert Yucca	5 Gal	0	L
	Desert Yucca	5 Gal	0	L
	Desert Yucca	5 Gal	0	L
	Desert Yucca	5 Gal	0	L

GROUNDCOVER				
SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS / REMARKS
	Asya arbuscula 'Loa Boy'	1 Gal	8" O.C.	L
	Desert Yucca	1 Gal	24" O.C.	M
	Festuca nivalis	1 Gal	24" O.C.	M
	Alma Felice	1 Gal	48" O.C.	L
	Londonia 'Hollander'	1 Gal	48" O.C.	L
	Walt's Holyhock	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Pin Millie	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
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	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
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	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L
	Muhlenbergia capillaris	1 Gal	36" O.C.	L

2000 lbs: Wood mulch
 800 lbs: 2-1 Blend organic fertilizer
 100 lbs: Bark mulch
 20 lbs: Endo-net mycorrhizal inoculum
 1 lb: Azobisisobutyronitrile
 1 lb: Escalonia caespitosa
 1 lb: Junonia
 8 lbs: Leymus trichoides Rio
 4 lbs: Desmodium illinoense
 20 lbs: Festuca rubra 'Tibata'
 6 lbs: Horsetail
 1 lb: Muhlenbergia rigens
 3 lbs: Muhlenbergia microperma
 3 lbs: Horsetail depressum

2" layer decomposed granite over filter fabric at fire lane



**Figure 8
Landscape Plan**

Brodiaea Avenue Development

Core Five



HUNTER LANDSCAPE
 711 FEE ANA STREET PLACENTIA, CA 92870
 714.986.2400 FAX 714.986.2408

16-068
 01.25.17

Moreno Valley, California

3.0 Project Description

3.1.5 Storm Drainage

The site plan is designed to allow storm water to sheet flow to the east of the site where a bio-retention basin will collect the storm water and allow the water to percolate into the ground. During heavy storm events, high flows that exceed the basin's capacity will enter a riser outlet structure and discharge into an existing 30-inch reinforced concrete pipe that discharges flows into the Heacock Channel, which ultimately drains into the Perris Valley Storm Drain.

3.1.6 Utilities

The Proposed Project would require the use of several different service providers to effectively provide the utility needs for the building. Electrical service would be provided by Moreno Valley Electric Utility. Domestic water would be provided by EMWD. Fire and Police protection would be provided by the City's Fire Department and Police Department. Existing water, sewer and dry utility lines (e.g., gas, electric, etc.) are in Brodiaea Avenue and would be extended into the site to provide waste and sewage services for the Project Site.

3.2 CONSTRUCTION

The estimated 9-month construction process would have the following four phases with estimated timeframes for each phase:

- 1) Grading – 6 days
- 2) Building construction and site work – 220 days
- 3) Paving – 10 days
- 4) Architectural coating/painting – 15 days

No street closures would occur. Project construction hours will be limited to the hours allowed by Municipal Code Section 8.14.040.E (between the hours of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the city building official or city engineer).

3.3 DISCRETIONARY APPROVALS

This Addendum is intended to serve as the primary environmental document for all actions associated with the proposed project, including all discretionary approvals requested or required to implement the project.

The City of Moreno Valley and the following responsible agencies are expected to use the information contained in this Addendum for consideration of approvals related to and involved in the implementation of this project.

CITY OF MORENO VALLEY

Following are the primary discretionary actions that will be considered by the Moreno Valley City Council:

- Adoption of the Addendum: The Addendum would serve as the primary environmental document for the Proposed Project.
- Approval of a Plot Plan: For the development of the Site and building pursuant to the Project plans on file at the City.
- Approval of the Zoning Variance: The Zoning Variance will be necessary to allow the development of the warehouse facility in one building totaling 99,978 SF. The Moreno

3.0 Project Description

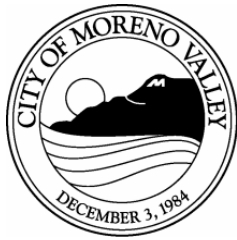
Valley Section 9.02.020 *Permitted Uses* table does not allow for the development of Wholesale, Storage, and Distribution facilities greater than 50,000 SF in a single structure in an area designated as a Business Park district.

In addition to the primary discretionary actions listed above, subsequent approvals by the City of Moreno Valley and other agencies may include:

- Grading permit
- Building permit
- Encroachment permit
- NPDES Permit, Regional Water Quality Control Board
- South Coast Air Quality Management District
- Department of Waters Resources

4.0 ENVIRONMENTAL CHECKLIST AND ANALYSIS

4.0 Environmental Checklist and Analysis



**INITIAL STUDY/
ENVIRONMENTAL CHECKLIST FORM
CITY OF MORENO VALLEY**

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

	Aesthetics		Hazards & Hazardous Materials		Recreation
	Agricultural Resources		Hydrology/Water Quality		Transportation/Traffic
	Air Quality		Land Use/Planning		Tribal Cultural Resources
	Biological Resources		Mineral Resources		Utilities/Service Systems
	Cultural Resources		Noise		Mandatory Findings of Significance
	Geology/Soils		Population/Housing		
	Greenhouse Gas Emissions		Public Services		

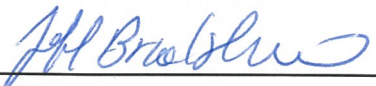
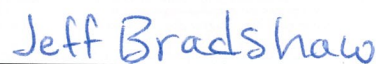
DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND or MND or previously certified EIR adequately discusses the potential impacts of the project without modification

4.0 Environmental Checklist and Analysis

- No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND, MND or previously certified EIR adequately discusses the potential impacts of the project; however, minor changes require the preparation of an ADDENDUM.
- Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND, MND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are clearly reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT MND is required.
- Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, only minor changes or additions or changes would be necessary to make the previous EIR adequate for the project in the changed situation. Therefore, a SUPPLEMENTAL EIR is required.
- Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3) such as one or more significant effects not discussed in the previous EIR. Therefore, a SUBSEQUENT EIR is required.


 Signature _____ Date 04/14/17

 Printed Name _____ For _____

4.0 Environmental Checklist and Analysis

EVALUATION OF ENVIRONMENTAL IMPACTS

In accordance with CEQA (Public Resources Code Section 21000 - 21177), this Initial Study has been prepared to analyze the proposed project by the identification of any potentially significant impacts upon the environment that would result from construction and implementation of the project. In accordance with Section 15063 of the CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the Lead Agency, the City of Moreno Valley, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration or EIR would be required for the proposed project.

This Initial Study reviews the proposed project's potential environmental impacts against the previously analyzed project described in the adopted ND to determine if impacts were adequately analyzed and mitigated. The following terminology is used in determining the project-related impacts:

- 1) A finding of "No New Impact/No Impact" means that the potential impact was fully analyzed and/or mitigated in the prior CEQA document and no new or different impacts will result from the proposed activity. A brief explanation is required for all answers except "No New Impact/No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No New Impact/No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No New Impact/No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) A finding of "New Mitigation is Required" means that the project has a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the impact.
- 3) A finding of "New Potentially Significant Impact" means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document that cannot be mitigated to below a level of significance or be avoided.
- 4) A finding of "Reduced Impact" means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.
- 5) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 6) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by

4.0 Environmental Checklist and Analysis

- mitigation measures based on the earlier analysis. Describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed action.
- c) Infeasible Mitigation Measures. Since the previous EIR was certified or previous ND or MND was adopted, discuss any mitigation measures or alternatives previously found infeasible that would in fact be feasible or that are considerably different from those previously analyzed and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives.
 - d) Changes in Circumstances. Since the previous EIR was certified or previous ND or MND was adopted, discuss any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a change in conclusion regarding one or more effects discussed in the original document.
- 7) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 8) Supporting Information Sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

Incorporation by Reference

This Initial Study incorporates by reference all or portions of the Adopted ND for the CBP project and the technical documents that relate to the Proposed Project Site or provide additional information concerning the environmental setting of the Proposed Project. The information disclosed in this Initial Study is based on the following technical studies and/or planning documents:

- *Moreno Valley General Plan 2006*

The City of Moreno Valley General Plan, dated July 11, 2006, serves as a policy guide for determining the appropriate physical development and character of the City. The General Plan is founded upon the community's vision for the City and expresses the community's long-term goals. Implementation of the General Plan would ensure that future development projects are consistent with the community's goals and that adequate urban services are available to meet the needs of new development.

The General Plan contains goals, policies, and plans which are intended to guide land use and development decisions. The General Plan consists of a Land Use Policy Map, Introduction, Goals and Policies and the following seven elements or chapters, which together fulfill the State requirements for a General Plan:

- Community Development;
- Economic Development;
- Parks, Recreation and Open Space;
- Circulation;
- Safety;

4.0 Environmental Checklist and Analysis

- Conservation; and
- Housing.

Several supporting documents were produced during the development of the General Plan, including the City of Moreno Valley 2006 General Plan Program Final Environmental Impact Report. These documents provide substantial background information for the General Plan. The General Plan and supporting documentation were used throughout this Initial Study as sources of baseline and background data.

- *Moreno Valley Municipal Code*

The Moreno Valley Municipal Code implements the policies articulated in the General Plan and is the primary regulatory documents used to ensure land use compatibility. Both contain standards for development, such as minimum lot sizes, building setback and maximum height limitations, parking and landscaping requirements, and other standards designed to promote compatibility.

- *Initial Study and Mitigated Negative Declaration 2005 (and adopting resolutions and findings)*

The Project Site was originally analyzed as Building Site #7 of the CBP project. The 126-acre CBP project was approved by the City in 2005 and an Initial Study/Mitigated Negative Declaration for development 8 industrial buildings and one future industrial building ranging from and a total of 2,312,136 square feet (SF) of industrial buildings in an area bound by Cactus Avenue, Frederick Street, Heacock Street, and Alessandro Boulevard. The CBP project included nine different lots for the development of eight industrial building ranging from 80,620 SF to 779,016 SF. One lot (Building Site #7; Propose Project Site) was analyzed for future industrial development and an 82,994 SF building footprint was assumed for the site. The ND concluded that there were no significant environmental effects.

The foregoing documents are available for review at the City of Moreno Valley:

Community Development Department
 Planning Division
 14177 Frederick Street
 Moreno Valley, California 92552

4.0 Environmental Checklist and Analysis

ENVIRONMENTAL CHECKLIST QUESTIONS

	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
1. AESTHETICS				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Adopted ND Summary of Impacts

The adopted ND determined that the Project Site is not located along an officially designated scenic highway corridor. Therefore, there were no significant impacts.

Impacts Associated with the Proposed Project

No New Impact – The project vicinity contains a mixture of industrial, commercial, and residential uses, vacant land, as well as military uses (March Airforce Base). The City of Moreno Valley is generally flat. The surrounding area contains higher elevation mountains on the north and east, and lower hillsides to the southeast. There are no identified scenic vistas or viewpoints near or adjacent to the Project Site. The General Plan identifies the major scenic resources in the City as views of the mountains and southerly views of the valley, as shown on General Plan Figure 7-2, *Major Scenic Resources*. According to the General Plan, the major scenic resources within the Moreno Valley study area are visible from State Route (SR) 60, the major transportation route in the area.

4.0 Environmental Checklist and Analysis

The Project Site is 2 miles south of SR-60 and not within an area identified as major scenic resource is the General Plan. The Proposed Project is a 41-foot high, 99,978 SF industrial warehouse building. Compared to the existing conditions, it would not obstruct any long-distance views in the area.

The Proposed Project would have the same aesthetic industrial/warehousing character as the CBP project, and the same industrial service character as other uses in the vicinity. Since there are no identified scenic vistas in the area, and the 41-foot height of the building would not obstruct views of hills and mountains in the distance, the Proposed Project would have no effect on scenic vistas. Overall, the proposed industrial warehousing building would result in similar less than significant visual changes as those of the previously Project's industrial buildings, and implementation of the Proposed Project would not result in any new or more severe impacts upon a prominent scenic vista or view than was described in the Adopted ND.

Source: General Plan (Conservation Element).

b) Substantially damage scenic resources, including, trees, rock outcroppings, and historic buildings within a state scenic highway?

Summary of Impacts in the Adopted ND

The adopted ND stated that development of the overall CBP would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features, or a prominent scenic vista view that is open to the public, as these features do not exist on or adjacent to the Project Site. The adopted ND concluded that there would be no significant impacts.

Impacts Associated with the Proposed Project

No New Impact – There are no designated state scenic highways in the vicinity of the Project Site. Furthermore, there are no State-designated or eligible scenic highways within the City of Moreno Valley. The Project Site is not located within close proximity to any scenic highway corridors. The nearest designated scenic highway is SR-243 approximately, 22 miles to the east of the site. The nearest highways to the Project Site are SR-215 approximately, 1.75 miles to the west and SR-60 approximately 2 miles to the north. However, neither of these highways are designated scenic routes or are eligible for state scenic highway designation. Therefore, there would be no new impact related to damaging scenic resources within a state scenic highway.

Source: Caltrans. California Scenic Highway Mapping System.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Adopted ND Summary of Impacts

The adopted ND stated that development of the CBP, which included the Project Site, would not substantially degrade the visual character of the site or its surroundings. The adopted ND concluded that there would be less than significant impacts.

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Impacts Associated with the Proposed Project

No New Impact – The Project Site is located in a portion of the City of Moreno Valley that is developing as a center for distribution warehousing and light industrial land uses. Under existing conditions, the Project Site is a vacant parcel that has been rough graded. To the east, the Project Site is surrounded by a flood control channel and single-family homes across Heacock Street. To the north, south and west, a mixture of warehouse buildings, undeveloped lands, and other land uses located on properties designated and zoned for industrial development by the City of Moreno Valley.

The visual character of the site's surroundings west of Heacock Street is dominated by warehouse buildings and undeveloped properties designated for future industrial development. Residential uses are located across Heacock Street, approximately 180 feet to the east.

Compared to existing conditions, the Proposed Project would replace a vacant, previously graded parcel with one 99,978 SF, 41-foot tall, industrial warehouse building, a surface parking lot and a water quality basin. The Proposed Project would continue to be consistent with the City's land use designation for the Site, which encourages industrial development; setbacks would continue to be provided in compliance with City policies; and the building would continue to be screened by landscaping along public thoroughfares.

The visual character of the Project Site itself would remain essentially the same compared to the Adopted ND and the CBP project. While the Proposed Project would increase the building's footprint from 82,994 SF to 99,978 SF compared to the development footprint analyzed in the Adopted ND, the additional 16,984 SF of building area would have limited impacts on the area's visual character because the site would continue to be occupied by an industrial use building.

The Proposed Project would continue to be consistent with the City's land use designation for the site, which encourages industrial development; setbacks would continue to be provided in compliance with City policies; and the building would continue to be screened by landscaping along public thoroughfares.

The Proposed Project would have the same aesthetic industrial/warehousing character as anticipated by the adopted ND, and the same industrial service character as other uses in the immediate vicinity. The proposed building is compatible with the size, scale, height, and aesthetic of the building contemplated in the Adopted 2005 ND. The total square footage of the building would be 99,978 SF, which is a fraction of the size and scale of other similarly developed properties in the immediate vicinity, including the Harbor Freight Tools, Frazee Paint and Serta Simmons bedding. The temporary visibility of construction equipment and activities would not substantially degrade the visual character of the surrounding area, as construction activities are a common occurrence in the area. The Proposed Project would not result in a change that would be degrading to the existing visual character or quality of the property or its surroundings.

Therefore, there would be no new impacts and impacts would remain less than significant.

4.0 Environmental Checklist and Analysis

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the project would involve the installation of parking lots and security lighting, but that it would not expose residential properties to unacceptable levels of light or glare. The City's Municipal Code requires project lighting to be shielded and directed away from residential properties, and impacts were determined to be less than significant.

The Adopted ND stated development of the CBP result in new glare and light to the area from the installation of parking lot and security lighting, but that it would not expose residential properties to unacceptable levels of light or glare because lighting requirements contained in the City's Municipal Code (Section 9.08.100 Lighting) would sufficiently reduce impacts. Impacts were determined to be less than significant.

Impacts Associated with the Proposed Project

No New Impact – As analyzed in the Adopted ND, development of the Project Site would create new sources of light or glare from security lighting for the building and traffic, but would not adversely affect day or nighttime views in the area. Exterior surfaces of the structure would be finished with a combination of architectural coatings, trim, and/or other building materials such as concrete. The Proposed Project would incrementally increase the amount of daytime glare in the project area by introducing a new, parking lot and associated vehicles into the area.

As with the previously analyzed project, all outdoor lighting for the Proposed Project would be hooded, appropriately angled away from residential and adjacent land uses, and would comply with the City's lighting ordinance and Standard Conditions of Approval. All development in the City, which includes light generated from industrial buildings and parking lots, is required to adhere to lighting requirements contained in the City's Municipal Code (Section 9.08.100 Lighting), which states that any outdoor lighting associated with nonresidential uses shall be shielded and directed away from the surrounding residential uses. Such lighting shall not exceed one-quarter (0.25) foot-candle at property lines and shall not blink, flash, oscillate, or be of unusually high intensity or brightness. Lighting in parking areas and drive aisles must be at least 1.0 foot candle and cannot exceed a maximum of 8.0 foot candles. All site lighting be oriented downward so as to not project direct light rays upward into the sky or onto adjacent properties, including the residential uses across the street.

Additionally, the Proposed Project includes a 12-foot tall screen wall at the southeast corner of site, to shield the truck loading areas from views along Heacock Street and the residential uses across the street. Adherence to the City's Zoning Code would help reduce potential building or parking lighting impacts would remain less than significant. Therefore, implementation of the Proposed Project would not result in any new or more severe impacts related to exposure of residential property to lighting than was described in the Adopted ND. The Proposed Project is consistent with the impacts identified in Adopted ND and the level of impact remains unchanged from that cited in the Adopted ND.

Source: Moreno Valley Municipal Code

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

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Project Design Features (PDFs)

The following PDF is incorporated into the project by the applicant, and would reduce impacts related to aesthetics, lighting, and glare:

PDF AES-1 [Load Dock Screen Walls]. 12-foot high block screen (“wing”) walls will be constructed along the loading dock areas along Heacock Street.

Standard Conditions and Existing Plans, Programs, or Policies (PPPs)

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to aesthetics, lighting, and glare:

PPP-1: Construction Hours

Pursuant to City Municipal Code Section 8.14.040.E, Hours of Construction, any construction within the city shall only be completed between the hours of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the City.

PPP-2: Lighting

The project is required to adhere to lighting requirements contained in the City’s Municipal Code (Section 9.08.100 Lighting) and will ensure lighting fixtures are directed downward and shielded to avoid spillover.

4.0 Environmental Checklist and Analysis

	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
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2. AGRICULTURE & FOREST RESOURCES

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Adopted ND Summary of Impacts

Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

4.0 Environmental Checklist and Analysis

The Adopted ND described that the Project Site as not being located within an area designated prime farmland, Unique Farmland, or Farmland of Statewide Importance and concluded that the Project would have no significant impact.

Summary of Impacts with the Proposed Project

No New Impact – According to the Department of Conservation Farmland Mapping and Monitoring Program’s most recent map of Important Farmland in Riverside County, the project site is not located on lands that are considered to be Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Thus, as analyzed in the Adopted ND, development of the site pursuant to the Proposed Project would not result in impacts related to conversion of designated farmland to non-agricultural use. Therefore, implementation of the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Source: California Dept. of Conservation. Riverside County Important Farmland 2010 (Sheet 1 of 3).

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Adopted ND Summary of Impacts

The Adopted ND described that the Project Site as not located within an Agriculture Preserve or under a Williamson Act contract; therefore, there were no impacts.

Summary of Impacts with the Proposed Project

No New Impact – The Project Site has an existing zoning designation of is Business Bark (BP). This zone permits light industrial, research and development, office-based firms, warehouse uses and limited supportive commercial. Additionally, the surrounding land uses are not used for or designated for agricultural uses. Because the Project Site continues to not be in or adjacent to an agricultural preserve and neither the Project Site nor any immediately surrounding property is zoned for agricultural use, the Proposed Project would not conflict with an existing agricultural use or zoning. Additionally, the Project Site is not subject to a Williamson Act contract. Thus, like disclosed by the Adopted ND, the Proposed Project would not involve changes to the environment that could result in conversion of farmland to non-agricultural use. Therefore, there are no impacts. Implementation of the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND for the prior project.

Source: Moreno Valley Municipal Code

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Adopted ND Summary of Impacts

The Adopted ND described that the Project Site is not located within the boundaries of a forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g)). Therefore, it was determined that the project would not impact land designated as forest land, timberland, or timberland zoned Timberland Production.

4.0 Environmental Checklist and Analysis

Impacts Associated with the Proposed Project

No New Impact – As described in the Adopted ND, the Project Site is not located within the boundaries of a forest land, timberland, or area zoned Timberland Production. Therefore, implementation of the Proposed Project would not result in any new or more severe impacts to forest land, timberland, or timberland production than was described in the Adopted ND for the previously analyzed CBP project.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Adopted ND Summary of Impacts

The Adopted ND described that the Project Site is not located within forest land and would not result in the loss of forest land or conversion of forest land to non-forest use; therefore, no impact would occur as a result of the project.

Summary of Impacts with the Proposed Project

No New Impact – As described in the Adopted ND, the Project Site is not located within forest land. The Project Site has been rough graded and does not contain forest resources. The Project Site is zoned for Business Park (BP) uses and surrounded by lands designated for other urban land uses, that do not include forest land. Thus, as analyzed in the Adopted ND for the CBP project, development of the Project Site would not result in impacts related to the conversion of forest land to non-forest uses. Therefore, the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Adopted ND Summary of Impacts

The Adopted ND described that development of the Project Site would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use or of farmland to non-agricultural use.

Impacts Associated with the Proposed Project

No New Impact – As described above and in the Adopted ND, the Project Site does not contain forest resources. The Project Site is currently zoned for Business Park (BP) uses and surrounded by lands designated for other urban land uses, that do not include forest land. Thus, development of the site with the Proposed Project would not result in changes to the environment that could result in the result in conversion of forest land to non-forest use or of farmland to non-agricultural use. Therefore, the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to agriculture and forest resources.

Mitigation Measures

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No mitigation measures are necessary because no significant impacts to agriculture or forest resources have been identified.

Conclusion for Agriculture and Forest Resources

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding agricultural and forest resources. There have not been 1) changes to the project that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the Adopted ND was completed.

Mitigation/Monitoring Required

No new impacts nor substantially more severe agricultural or forest resources related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for agricultural and forest resources.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
3. AIR QUALITY				
Would the project:				
a) Conflict with or obstruct implementation of the applicable quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

The Project Site is located in the South Coast Air Basin, which is under the jurisdictional boundaries of the SCAQMD. The SCAQMD and Southern California Association of Governments (SCAG) are responsible for preparing the Air Quality Management Plan (AQMP), which addresses federal and state Clean Air Act (CAA) requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin. In preparation of the AQMP, SCAQMD and SCAG use land use designations contained in General Plan documents to forecast, inventory, and allocate regional emissions from land use and development-related sources. For purposes of analyzing consistency with the AQMP, if a proposed project would have a development density and vehicle trip generation that is substantially greater than what was anticipated in the General Plan, then the proposed project would conflict with the AQMP. On the other hand, if a project's density is consistent with the General Plan, its emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD's attainment plans. In addition, the SCAQMD considers projects consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation.

Adopted ND Summary of Impacts

In support of the Adopted ND, Mestre Greve Associates prepared an Air Quality Assessment analyzing the development of 2,363,860 SF of light industrial land uses on 125 acres, which

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included 82,994 SF of development potential for Building 7, the Proposed Project Site (Mestre Greve, 2004). The Adopted ND concluded that development of Project Site would not conflict with an air quality plan and impacts would be less than significant.

Summary of Impacts with the Proposed Project

No New Impact – Giroux & Associates prepared Air Quality and Greenhouse Gas (GHG) Emissions Modeling Sheets for the project in February 2017 (AQIA). The AQIA evaluates emissions from construction and operations of the proposed building, focusing on criteria air pollutants, hazardous emissions, and GHG. A summary of results, with baseline emissions data, analysis methodologies and emissions modeling output, is included as Appendix A.

The Project Site has a General Plan land use designation of Business Park/Light Industrial, which allows a 1.0 Floor Area Ratio (FAR). As described in the General Plan, this designation is for light industrial, research and development, office-based firms and limited supportive commercial. The Proposed Project would develop a 99,978 SF industrial warehouse building on the 6.71-acre Project Site, which would result in a 0.34 FAR that would be consistent with the existing BP land use designation that allows up to a 1.0 FAR. Therefore, the development density of the Proposed Project would also be consistent with the assumptions in the AQMP, and would not conflict with SCAQMD's attainment plans.

In addition, emissions generated by construction and operation of the Proposed Project would not exceed thresholds, as described in the analysis below, which are based on the AQMP and are designed to bring the Basin into attainment for the criteria pollutants for which it is in nonattainment. Therefore, because the Proposed Project does not exceed any of the thresholds it would not conflict with SCAQMD's goal of bringing the Basin into attainment for all criteria pollutants and, as such, is consistent with the AQMP. As a result, impacts related to conflict with the AQMP from the Proposed Project would be less than significant and would not result in any significant impacts compared to existing conditions, or any new or more severe impacts than were described in the Adopted ND.

Source:

Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

Air Quality Assessment for Moreno Valley Centerpointe, City of Moreno Valley (Mestre Greve Associates, 2004)

SCAQMD. 2012 Air Quality Management Plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Regional Air Quality Thresholds

The analysis methodologies from the SCAQMD CEQA Air Quality Handbook are used in evaluating project impacts. SCAQMD has established daily mass thresholds for regional pollutant emissions, which are shown in Table AQ-1. Should construction or operation of the project exceed these thresholds a significant impact could occur; however, if estimated emissions are less than the thresholds, impacts would be considered less than significant.

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Table AQ-1: SCAQMD Regional Air Quality Significance Thresholds

Pollutant	Mass Daily Thresholds (lbs/day)	
	Construction	Operations
Oxides of Nitrogen (NO _x)	100	55
Reactive Organic Gases (ROG)	75	55
Respirable Particulate Matter (PM ₁₀)	150	150
Fine Particulate Matter (PM _{2.5})	55	55
Oxides of Sulfur (SO _x)	150	150
Carbon Monoxide (CO)	550	550
Lead	3	3
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	

Source: SCAQMD, 2011.

Adopted ND Summary of Impacts

In support of the Adopted ND, Mestre Greve Associates prepared an Air Quality Assessment analyzing the development of 2,363,860 SF of light industrial land uses on 125 acres, which included 82,994 SF of development potential for Building 7, the Proposed Project Site (Mestre Greve, 2004). The Adopted ND described that development of the Project Site would impact air quality in the short-term during construction and in the long-term through operation; however, emissions were determined to be less than significant by the ND and the Air Quality Assessment. In accordance with standard SCAQMD and City requirements, dust control measures and maintenance of construction equipment would be utilized on the property to limit the amount of particulate matter generated, and impacts would be less than significant.

The Project would primarily impact air quality through increased vehicular emissions. It was determined that the project would not generate enough traffic and associated air pollutants to violate clean air standards. Therefore, the impacts related to air quality violations were determined to be less than significant.

Impacts Associated with the Proposed Project**No New Impact**

The Proposed Project would develop a 99,978 SF industrial warehouse building, compared to the 82,994 SF building footprint analyzed in the Adopted ND. Although the building would only be 16,984 SF larger than the previously anticipated building footprint, the AQIA prepared the Proposed Project conservatively analyzes the impact of construction of a 99,978 SF building compared to existing vacant condition, rather than simply the delta between the previously analyzed development potential, to determine if there would be new significant environmental effects or a substantial increase in the severity of previously identified effects.

Construction

The Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Air quality impacts would include construction exhaust

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emissions generated from diesel- and gasoline-powered construction equipment, vegetation clearing, grading, construction worker commuting, and construction material deliveries. Fugitive dust emissions include particulate matter and are a potential concern because the Project Site is in a non-attainment area for PM-10 and PM-2.5, as well as ozone.

The AQIA calculated onsite grading and construction equipment emissions and construction crew commuting and truck delivery emissions using the California Emissions Estimator Model (CalEEMod, version 2016.3.1). The AQIA uses the SCAQMD-adopted numerical emissions thresholds shown in Table AQ-1, as indicators of potential impacts.

Following is a summary of the AQIA's construction equipment fleet assumptions and emissions calculations for both phases of construction activity.

Table AQ-2. Construction Phasing & Equipment

	Phase	Duration (Est)	Equipment
1	Site Preparation & Grading	6 days	Graders (1) Dozer (1) Tractors/Loaders/Backhoes (2) Water Truck
2	Building Construction and Site Work	220 days	Crane (1) Welders (3) Forklift (2) Generator set (1) Tractors/Loaders/Backhoes (1)
3	Paving	10 days	Tractors/Loaders/Backhoes (1) Mixers (1) Paver (1) Roller (2) Paving Equipment (1)
	<i>Total</i>	<i>9 months</i>	

As shown in Table AQ-3, the AQIA determined all criteria pollutants generated by the Proposed Project would be well below their respective thresholds (see the AQIA for detailed emissions calculations). In compliance with SCAQMD Rule 403, because the region is in non-attainment for particulate matter emissions, the use of Best Available Control Measures (BACMs) is required even if a project does not exceed thresholds. BACMs for the project consist of enhanced dust control measures (see PPP-3). Examples of these measures include watering of exposed surfaces and haul roads 3 times per day and limiting speeds on unpaved roads to 15 miles per hour. With these measures, PM-10 and PM-2.5 emissions would be reduced by about 40 percent.

As shown in Table AQ-3, none of the criteria pollutants would exceed the SCAQMD thresholds (with or without the recommended PPP).

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**Table AQ-3. Maximum Daily Construction Activity Emissions (pounds/day)
9-month duration**

Activity	ROG	NO _x	CO	SO ₂	PM-10	PM-2.5
Phases 1 - 3						
Unmitigated	8	28	22	0	8	5
w/Fugitive Dust PPP*	8	28	22	0	4	3
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Appendix A (Giroux & Associates, 2017).

*enhanced fugitive dust control measures are incorporated into PPP-3.

Operation

Similar to the findings of the Adopted ND, implementation of the Proposed Project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products, in addition to operational mobile emissions. Development of the Proposed Project would generate 356 trips per day.

Operations emissions associated with the Proposed Project were modeled using CalEEMod. Model defaults were adjusted to reflect project-specific data, where available, including the size and type of the proposed land use and project specific trip rates. Modeled operations emissions are presented in Table AQ-4. Significance is determined based on whether, the emissions generated from the Proposed Project would exceed the regional thresholds identified in Table AQ-1.

As shown in Table AQ-4, the Proposed Project would result in long-term regional emissions of the criteria pollutants that would be below the SCAQMD's applicable thresholds. Therefore, the Proposed Project's operational emissions would not exceed the NAAQS and CAAQS and impacts would be less than significant compared to existing conditions. In addition, operation of the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND. The Proposed Project would generate less than significant air emissions during operations. With implementation of existing SCAQMD rules, no mitigation is necessary for operational air emissions.

Table AQ-4. Operational Activity Emissions (tons/year)

Activity	ROG	NO _x	CO	SO ₂	PM-10	PM-2.5
Area	2	0.0	0	0	0	0
Energy	0	0	0	0	0	0
Mobile	1	10	11	0	3	10

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Total Emissions	3	10	11	0	3	1
<i>SCAQMD Threshold</i>	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Appendix A (Giroux & Associates, 2017).

Based on the above analysis, project construction and operations would neither violate any air quality standard nor contribute substantially to an existing or projected air quality violation. Implementation of PPP-3 is required to achieve compliance with regional air quality regulations. With application of this SCAQMD requirement, impacts are less than significant. In order to mitigate air quality impacts, the Adopted ND included a series of measures related to construction equipment control, energy efficiency, VOC, PM 10, NO_x, and additional preventative measures (ND pgs. 6-8). As the Proposed Project is no longer exceeding any air pollution thresholds, the implementation of such measures is not required for the development of Proposed Project Site.

The Adopted ND determined that air quality impacts were less than significant. Air quality impacts would remain less significant with the Proposed Project, both as compared to existing conditions and as compared to the Adopted ND. Therefore, there are no new impacts. The Proposed Project would not result in any new or more severe impacts than were described in the Adopted ND.

Source:

Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Adopted ND Summary of Impacts

The Adopted ND described that development of Project Site would not result in cumulatively considerable impact air quality and impacts would be less than significant.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). As previously discussed in Items 3a and 3b, the Proposed Project's contribution to criteria pollutants during the temporary construction period would be localized and below the SCAQMD's thresholds. In addition, BACMs are applied to further reduce emissions of particulate matter (PPP-3). Operational activities would generate negligible quantities of air pollutants that are not deemed cumulatively considerable. Since no other sources of potential long-term air emissions would result, impacts would be less than significant. The Adopted 2005 ND for the CBP determined that air quality impacts were less than significant. Air quality impacts would remain less significant with the proposed warehouse building. Therefore, there are no new impacts. The Proposed Project would not result in any new or more severe impacts than were described in the Adopted ND.

4.0 Environmental Checklist and Analysis

Source: Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

d) Expose sensitive receptors to substantial pollutant concentrations?

Adopted ND Summary of Impacts

The Adopted ND described that development of the Project Site would not result in expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant. An Air Quality Assessment (2004) and Health Risk Assessment (HRA, 2005) were completed by Mestre Greve Associates. Based upon the conclusions of the Air Quality and HRA there were no significant impacts and no mitigation was required. The HRA study demonstrated that that residential uses in close proximity to the Project Site would not be exposed to diesel particulate matter that exceeds SCAQMD thresholds. At the time of the 2005 ND, the City believed that a 1,000-foot buffer between residential uses and industrial warehouse buildings would be adopted based on a SCAQMD comment letter, and despite the lack of impacts, suggested that warehouse uses along Heacock Street, including Building #7 should be restricted 50,000 SF buildings. Impacts were less than significant without mitigation.

Impacts Associated with the Proposed Project

No New Impact –

Construction

Sensitive land uses are defined by the California Air Resources Board as land uses where sensitive individuals, such as children and the elderly, are most likely to spend time, including schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities. The nearest sensitive receptors to the Project Site are residential land uses to the east, about 180 feet from the eastern boundary. The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs are LSTs, which are applicable only to CO, NO_x, PM-10, and PM-2.5, were developed in response to the SCAQMD's Governing Board's Environmental Justice Enhancement Initiative 1-4. The LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005. The use of LSTs is voluntary, to be implemented at the discretion of local public agencies acting as a lead agency pursuant to the CEQA. LSTs are only applicable to construction projects where the area of daily earth disturbance is 5 acres or less. Although the Project Site is 6.71 acres, on no single day would more than 5 acres of disturbance occur. Table AQ-5 provides an assessment of the Project's emissions compared to the SCAQMD's LSTs for the Perris Valley area. As shown in the table, none of the LSTs are exceeded by the project; therefore, there would be a less-than-significant impact related to sensitive receptors being exposed to substantial pollutant concentrations.¹

¹ <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

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Table AQ-5. LST and Project Emissions (pounds/day)

LST 1.0 acre/50 meters Perris Valley	NO _x	CO	PM-10	PM-2.5
Unmitigated	28	22	8	5
w/Fugitive Dust PPP	28	22	4	3
<i>SCAQMD LST Threshold</i>	<i>148</i>	<i>887</i>	<i>12</i>	<i>10</i>
Exceeds Threshold?	No	No	No	No

Source: Appendix A (Giroux & Associates, 2017).

*enhanced fugitive dust control measures are incorporated into PPP-3.

Operational

The City's stated intent in the Adopted ND was to create a 1,000-foot buffer between warehouse distribution and sensitive receptors, however, a 250-foot buffer was adopted for the LI zoning district. The Proposed Project Site is located in the BP district and is not subject to a residential setback. Nonetheless, the Site has been designed to maximize the distance to residential uses to east, which would be approximately 250 away from the warehouse building edge and about 325 feet from truck loading dock area. A health risk analysis has been prepared (see Appendix J) to validate the findings of the 2005 Health Risk Assessment in support of the adopted CBP 2005 ND. As summarized in Table AQ-6, the Health Risk Assessment determined the project's maximum lifetime cancer risk, chronic non-cancer hazard index, and acute non-cancer hazard index to be below the applicable significance thresholds, without the need for a 1,000-foot buffer from sensitive receptors.

Table AQ-6. Summary of Project-Level Health Risk Assessment

Location	Cancer Risk (per million)		Exceeds Significance Threshold?
	Maximum Lifetime Project Risk	Significance Threshold	
Maximum Impacted Sensitive Receptor	0.13	10	No
Maximum Impacted Worker Receptor	0.04	10	No
	Chronic Non-Cancer Hazard Index		Exceeds Significance Threshold?
	Estimated Hazard Index	Significance Threshold	
Maximum Impacted Receptor	0.0002	1.0	No
	Acute Non-Cancer Hazard Index		Exceeds Significance Threshold?
	Estimated Hazard Index	Significance Threshold	
Maximum Impacted Receptor	0.002	1.0	No

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Source: Appendix J (Vince Mirabella, 2017).

The analysis of the Proposed Project's operational impacts supports the following conclusions:

- The Proposed Project would not exceed any project-level health risk or hazard significance threshold; therefore, the operation of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.
- The potential health impacts from the Proposed Project would not add any new health risk impacts than previously identified as part of the CBP 2005 ND.

Note that as part of the preparation of the 2005 ND for the CBP, the previous health risk analysis of the CBP (Mestre Greve 2005) concluded that the operation of the CBP would not expose sensitive receptors to increased cancer or non-cancer risks that exceeded health significance thresholds recommended by the SCAQMD as a result of the operation of the CBP. The present health risk analysis further substantiates these results and does not identify any new health risk impact identified in either the 2005 ND or previous health risk analysis.

The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Refer to Items 3a through 3c for calculations of criteria pollutant emissions. The Project's construction and operations would not result in any significant air pollutant emissions, and nearby sensitive receptors (consisting of residences) would not be significantly impacted by such emissions. Therefore, there would be no new impacts.

Source:

Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

Appendix J. Health Risk Analysis (Vince Mirabella, 2017).

California Air Resources Board. Air Quality and Land Use Handbook: A Community Health Perspective.

e) Create objectionable odors affecting a substantial number of people?

Adopted ND Summary of Impacts

The Adopted ND described that development of the Project Site would not result in objectionable odors affecting a substantial number of people; therefore, impacts were determined to be less than significant.

Impacts Associated with the Proposed Project

No New Impact – Objectionable odors are not anticipated as a result of the Proposed Project development or operation. Temporary, short-term odor releases are potentially associated with Project construction activities. Potential construction-related odor sources include, but are not limited to: asphalt/paving materials, glues, paint, and other architectural coatings. These odors would dissipate rapidly as they mix with the surrounding air, and would be short in duration, ceasing upon completion of construction. Construction related odor impacts are mitigated by established requirements for a material handling and procedure plan which identifies odor sources, odor-generating materials and quantities onsite, and isolation/containment devices or mechanisms to prevent significant release of odors. The potential for the Project to create objectionable odors affecting a substantial number of people is therefore considered less than

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significant. The Proposed Project would not result in any new or more severe impacts than were described in the Adopted ND.

Source:

Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to air quality.

PPPs

The following measure is a standard condition of development that applies to the proposed project and would help to reduce and avoid potential impacts related to air quality. This action would be included in the project's mitigation monitoring and reporting program:

PPP-3: Fugitive Dust

The project will comply with South Coast Air Quality Management District (SCAQMD) Rule 403, Fugitive Dust. The project developer will require construction contractors and subcontractors to employ the following enhanced dust control measures during construction to minimize particulate matter (PM-10 and PM-2.5) emissions:

1. Suspend the use of all construction equipment during first-stage smog alerts.
2. Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
3. Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
4. Stabilize previously disturbed areas if subsequent construction is delayed.
5. Water exposed surfaces and haul roads 3 times/day.
6. Cover all stock piles with tarps.
7. Replace ground cover in disturbed areas quickly.
8. Reduce speeds on unpaved roads to less than 15 mph.
9. Trenches shall be left exposed for as short a time as possible.
10. Identify proper compaction for backfilled soils in construction specifications.
11. Cover all trucks hauling dirt, sand, or loose material or require all trucks to maintain at least two feet of freeboard.
12. Sweep streets daily if visible soil material is carried out from the construction site.

Mitigation Measures

No new impacts nor substantially more severe air quality related impacts would result from the adoption and implementation of the Proposed Project; therefore, no mitigation measures are required to reduce impacts to air quality to less than significant levels.

Conclusion for Air Quality

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding air quality. There

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have not been 1) changes to the project that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the Adopted ND completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
4. BIOLOGICAL RESOURCES				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>		X	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

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Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Wildlife or U.S. Fish and Wildlife Service?**

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site has been previously disturbed due to previous development in the area. The Multi-Species Habitat Conservation Plan for Riverside County which the City of Moreno Valley adopted required that a Biological Assessment Study and Burrowing Owl Survey be completed. Based on the Burrowing Owl survey it was found that no owls were present at the Project Site. The survey determined that the site could be potentially suitable for habitat for foraging, and the project was conditioned to complete pre-grading surveys. With these conditions, impacts were determined to be less than significant.

Impacts Associated with the Proposed Project

No New Impact – In October 2016 Blackhawk Environmental (Blackhawk) conducted a literature review, field reconnaissance survey, and biological assessment of the proposed Project Site to assess existing site conditions, as well as assess the potential for sensitive species or habitats to occur within the Project Site. This Habitat Assessment Report is contained in Appendix B.

The Proposed Project is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The Project is located within the Reche Canyon/Badlands Area Plan. The site is best characterized as an unimproved industrial land use type. The Proposed Project is located within 6.71 acres of mass graded, vacant land immediately southwest of the intersection of Brodiaea Avenue and Heacock Street, isolated from the larger extant habitats of the region. The western boundary of the Project Site abuts a maintained retention basin devoid of vegetation and industrial land uses. The northern boundary abuts Brodiaea Avenue and vacant land that has been graded and tilled in various phases for years. The eastern boundary abuts an improved drainage channel (Heacock Channel), Heacock Street and there is residential development across Heacock Street. The southern boundary abuts industrial land uses. No native vegetation communities exist on the Project Site or within the Survey Area.

Existing conditions within the Project Site include various types and levels of anthropogenic modification, generally lacking native vegetation and natural topographic relief. Overall, the site shows evidence of previous soil disturbances through both intentional earth moving activities and fire fuel reduction action. Review of historic aerials of the Project site indicate that the site has undergone periodic vegetation maintenance in the form of mowing and disking since at least as far back as 2005 (Google Earth 2016). Topographically, the site generally drains from northwest to southeast, where a drainage grate has been installed to connect to Heacock Channel. Residential and industrial development over time adjacent to the Project site has rendered the area fully isolated from native habitats.

Vegetation Communities

The majority of the Project Site has been disturbed by previous grading activity and consists of bare ground, with small areas in of scattered vegetation. A total of 6.71 acres of Residential/Urban/Exotic –Disturbed Areas were identified to occur within the Project site. Per the

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MSHCP, residential/urban/exotic land uses often include ruderal plant communities. These areas often occur due to edge effects of developed roads and associated urban land uses. Within the Project Site, these ruderal plant communities are further described as “Disturbed Areas.” Disturbed areas at the time of the survey were composed primarily of bare ground and disked soils. The disturbed areas do not include sensitive vegetation communities, and do not have the potential to support any state and/or federally listed plant and wildlife species (Blackhawk 2016).

Sensitive and Observed Wildlife Species

The literature review resulted in a total of two sensitive wildlife species and no sensitive plant species known to occur within the Project vicinity (Appendix B, Table 3). Both wildlife species, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and burrowing owl (*Athene cunicularia*) are California Species of Special Concern and are not listed as State or federally threatened or endangered. The Project is located within an area necessitating surveys for burrowing owl. In accordance with survey guidelines contained in the MSHCP, an initial habitat assessment for burrowing owl was conducted on October 14, 2016 as part of the overall site assessment.

Of the two wildlife species documented to occur within the Project vicinity, only burrowing owl is considered to have a moderate potential for occurrence based on proximity of historic records, marginal quality habitat onsite and a number of burrowing owl-suitable burrows within 150 meters of the Project Site. No burrowing owls and/or burrowing owl sign were observed during the habitat assessment within the Project Site or the Survey Area. However, due to the presence of suitable burrowing owl habitat onsite and the presence of numerous burrowing owl-suitable burrows within the Project site and the Survey Area, to minimize the potential for impacts to burrowing owls that may become established on the site prior to the start of construction, compliance with Appendix E of the MSHCP is required. Appendix E provides species-specific survey requirements, including guidance for the burrowing owl. Pre-construction surveys would be required within 30 days prior to the start of construction. Payment of fees in compliance with MSHCP is incorporated by PPP-4. Implementation of Appendix E is a standard condition of development within the MSHCP area and is incorporated into the Project as PPP-5.

The Los Angeles pocket mouse is presumed absent based on the lack of appropriate habitat, lack of suitable soils, regular disking activities and/or presumed extirpation from the Project area due to island effects.

No other threatened and endangered plant or wildlife species could be reasonably construed as having any potential to occur onsite. Thus, there would be no significant impacts related to endangered or threatened species from implementation of the Proposed Project, and the Proposed Project would not result in any new significant or more severe impacts compared to those in the Adopted ND. Therefore, impacts would remain less than significant.

Source:

Western Riverside County Multiple Species Habitat Conservation Plan.
Appendix B: Habitat Assessment Report (Blackhawk Environmental, 2016).

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Adopted ND Summary of Impacts

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The Adopted ND stated that no major riparian or other sensitive communities were found on the Project Site. The site was free of standing water or condensed riparian vegetation that could be a habitat area for sensitive or endangered species. The City determined that no significant impacts were anticipated as a result of development of the CBP Project Site.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would include permanent impacts associated with the complete clearing, grading and construction of the overall 6.71-acre Project Site. The currently undeveloped site is comprised entirely of a Residential/Urban/Exotic – Disturbed Areas vegetation community and would be completely and permanently converted to a fully developed industrial warehouse, parking lot and water quality basin. According to the biological habitat assessment and survey, Project implementation will not impact native vegetation communities.

Currently, a grate is situated at the lowest point of the Project Site at the southeast corner, providing underground drainage connectivity via corrugated metal pipes to Heacock Channel, immediately east of the Project Site. An erosional gully existing on uplands leading to the grate has been graded and regraded over the years on the Project Site, and is not a naturally occurring drainage feature. This erosional gully contains no aquatically adapted plant species, was not created for the purposes of creating wetland habitat or open water areas, and does not occur within a natural feature and, as such, is not subject to riverine/riparian criteria as defined by the MSHCP (RCIP 2003). While the erosional gully is not considered riverine/riparian habitat per the MSHCP, the feature was further evaluated for applicable federal and state standards for a jurisdictional water feature. The assessment identified an absence of potentially jurisdictional waters within the Project Site.

Accordingly, the Proposed Project has no potential to result in a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the USACE, RWQCB or CDFW, and no further analysis is required on this subject. Therefore, the Proposed Project would not result in any new or more severe impacts than was identified in the Adopted ND for the CBP project.

Source:

Biological Assessment (Blackhawk Environmental, 2016).

Moreno Valley General Plan Final Environmental Impact Report. Web. Available:

<http://www.moreno-valley.ca.us/city_hall/general_plan.shtml>. Accessed: September 30, 2016.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?

Adopted ND Summary of Impacts

The City determined that the Project Site does not contain riverine/riparian areas or vernal pools. There was no standing water found on the Project Site and no areas of significant riparian vegetation that would be associated with wetlands. Therefore, it was determined that no significant impact would occur.

Impacts Associated with the Proposed Project

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No New Impact – The Proposed Project would not affect any federally protected wetlands. As discussed in Section 4b above, there are no riparian/riverine habitat, jurisdictional drainages, or vernal pools within the Project Site. There would be no impact to such features. The assessment identified an absence of potentially jurisdictional waters within the Project Site.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Adopted ND Summary of Impacts

The City determined that no significant impacts to migratory wildlife species and to wildlife corridors were anticipated as a result of development of the CBP Project Site. Impacts were determined to be less than significant and no mitigation was required.

Impacts Associated with the Proposed Project

No New Impact – Wildlife corridors are linear features that connect areas of open space and provide avenues for the migration of animals and access to additional areas of foraging. The Project Site is not located in an area that provides any significant or biologically important habitat corridors or nursery sites. The Project Site itself does not contain, or adjacent to, any wildlife corridors. The Project Site is surrounded by roadways, residential, and industrial development, and does not provide a linkage to any open space or habitat area. Tracks, sign, burrows and/or direct visual observation of various small mammal species, such as Botta's pocket gopher, desert cottontail and California ground squirrel, were observed throughout the Project Site during the reconnaissance survey. No concentrations of wildlife tracks or sign were observed, and no established corridors or connectivity to larger conservation areas of the region were observed. The Project Site lies in an urbanized area where undeveloped land is heavily fragmented. The isolated nature of the Project Site surrounded by development precludes corridor potential. Therefore, development of a building onsite would not impede regional wildlife movement, impact any MSHCP-designated corridors or habitat linkages, or impede the use of native wildlife nursery sites. Overall, the Proposed Project would not result in any new or more severe impacts to wildlife corridors or native wildlife nursery sites compared to development of the CBP Project, as analyzed in the Adopted ND. There would be no new impacts.

Nesting birds of a wide range of species are protected by the Migratory Bird Treaty Act (MBTA). Potential migratory ground-nesting birds that may be transitory within the Project area are protected through mandated compliance with the MBTA. Disturbance of any active bird nest during the breeding season is also prohibited by the California Fish & Game Code. To ensure development of the Project Site does not violate the MBTA, PPP-6, requiring pre-construction surveys for nesting birds is included as part of the Proposed Project. With the implementation of MBTA, impacts to nesting birds would remain less than significant level. There would be no new impacts as a result of the Proposed Project.

e) Conflict with any local policies or ordinances protecting biological resources?

Adopted ND Summary of Impacts

The City determined that the development pursuant to the CBP Project was consistent with the goals and objectives of the General Plan and that no significant impacts were anticipated as a

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result of development of the Project Site.

Impacts Associated with the Proposed Project

No New Impact – As with the Adopted ND, site development pursuant to the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, including tree preservation ordinances. No trees are proposed to be removed. The following General Plan objectives and policies apply:

Table BIO-1. Consistency with Local Policies Protecting Biological Resources

General Plan Goals, Objectives and Policies		Project Consistency
Objective 7.4	Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No significant riparian or other biologically sensitive habitat is on or adjacent to the project area. The project is consistent with this objective.
Policy 7.4.1	Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No significant riparian or other biologically sensitive habitat is on or adjacent to the project area. The project is consistent with this policy.
Policy 7.4.2	Limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.	The project is not in a hillside area. The project is consistent with this policy.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	The project site does not contain any natural drainage courses. The project is consistent with this policy.
Policy 7.4.4	Incorporate significant rock formations into the design of hillside developments.	There are no rock formations on the project site. The project is consistent with this policy.

Source:

City of Moreno Valley General Plan
Biological Assessment (Blackhawk Environmental, 2016).

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Adopted ND Summary of Impacts

The Adopted ND stated that because of the lack of signs of wildlife, it was determined that the

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development of the Project Site would have a less than significant impact on any applicable conservation plans. The City determined that no significant impacts were anticipated as a result of development of the CBP Project Site.

Impacts Associated with the Proposed Project

No New Impact – The applicable conservation plan for the Project Site is the MSHCP.

The following summarizes the Proposed Project's consistency with the applicable sections of the MSHCP:

MSHCP §6.1.1 – Conservation Criteria Evaluation

The project site is located within the MSHCP's Reche Canyon/Badlands Area Plan, but is not located within a Criteria Cell or Criteria Area proposed for conservation in the plan. Therefore, the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process would not be necessary. The Proposed Project is consistent with Section 6.1.1 of the MSHCP.

MSHCP §6.1.2 – Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Section 6.1.2 of the MSHCP requires an assessment and mapping of riparian/riverine areas and vernal pools. Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergents, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. There are no riparian/riverine areas or vernal pools occurring onsite according to the Biological Assessment. As the Proposed Project would not impact riparian/riverine areas, vernal pools, or fairy shrimp habitat, the Project is consistent with Section 6.1.2 of the MSHCP.

MSHCP §6.1.3 – Protection of Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP requires site-specific focused surveys for narrow endemic plant species where appropriate or suitable habitat is present within identified a Narrow Endemic Plant Species (NEPS) Survey Area. The Project Site is not located in a NEPS Survey Area. Additionally, the Biological Assessment found no rare plants within the project area during biological surveys, and there is no suitable habitat for rare plants due to the land use practices within the parcel. No additional surveys or conservation are required. The Proposed Project is consistent with Section 6.1.3 of the MSHCP.

MSHCP §6.3.2 – Additional Survey Needs and Procedures

Section 6.3.2 of the MSHCP outlines applicable habitat assessments and required surveys for potential habitat located within the Project Area. The Proposed Project is located within the burrowing owl survey area. Within the burrowing owl survey area, a habitat assessment is required to address, at a minimum, potential habitat for burrowing owl. If potential habitat is determined to be located within the site, focused surveys are required during the appropriate season (March through August). A burrowing owl habitat assessment was conducted on the project site in October 2016 and found potential burrowing owl habitat.

Appendix E of the MSHCP, which contains species-specific objectives for the burrowing owl, requires that pre-construction presence/absence surveys for burrowing owl within the survey area, where suitable habitat is present, be conducted for all "covered activities" (including grading and construction) through the life of the permit. Pre-construction surveys would be conducted

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within 30 days prior to disturbance; “take” of active nests would be avoided; and passive relocation (use of one way doors and collapse of burrows), if approved, would occur when owls are present outside the nesting season. These standard measures are required for compliance with the MSHCP, and are incorporated into the project as PPP-4 and -5.

MSHCP §6.4 – Fuels Management

Section 6.4 of the MSHCP focuses on hazard reduction for human safety in a manner compatible with public safety and conservation of biological resources. According to the Fuels Management Guidelines of the MSHCP, new development planned adjacent to the MSHCP Conservation Area, or other undeveloped areas, must incorporate brush management within the development boundaries and may not encroach into the MSHCP Conservation Area. The Project Site is not located directly adjacent to MSHCP Conservation Areas and is surrounded by developed or highly-disturbed lands which are regularly grubbed and maintained with little or no vegetation. The Proposed Project is consistent with Section 6.4 of the MSHCP.

Conclusion

With payment of the MSHCP impact fee, implementation of the burrowing owl survey requirements and compliance with all applicable sections of the MSHCP, the Proposed Project would be consistent with the Western Riverside County MSHCP. Compliance with the survey and fee requirements of the MSHCP is incorporated into the project as PPP-4. Thus, the Proposed Project would not conflict with the provisions of the MSHCP, and the Proposed Project would not result in any new or more severe impacts than was identified in the Adopted ND. There would be no new impacts.

Source:

Appendix B. Habitat Assessment Report (Blackhawk Environmental, 2016).
Riverside County Habitat Conservation Agency. (undated).

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to biological resources.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to biological resources:

PPP-4: MSHCP Fee Payment

The project is required to pay the requisite MSHCP fee and conduct the required surveys.

PPP-5: Biology – MSHCP Burrowing Owl Pre-Construction Surveys

The project will implement Appendix E of the MSHCP which contains species-specific objectives for the burrowing owl. Appendix E requires pre-construction presence/absence surveys for burrowing owl within the survey area, where suitable habitat is present, be conducted for all “covered activities” (including grading and construction) through the life of the permit. Pre-construction surveys would be conducted within 30 days prior to disturbance; “take” of active

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nests would be avoided; and passive relocation (use of one way doors and collapse of burrows), if approved, would occur when owls are present outside the nesting season.

The following City of Moreno Valley Standard Condition ensures implementation of MSHCP Appendix E:

- Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan.

PPP-6: Biology – Migratory Bird Treaty Act (MBTA)

Community Development Department shall verify that the following note is included on the contractor specifications to ensure compliance with the Migratory Bird Treaty Act (MBTA):

“The project applicant must comply with the provisions of the Migratory Bird Treaty Act (PL 65-186, as amended; 16 USC §§ 703 et seq.). Vegetation removal activities should be scheduled outside the nesting season to avoid potential impacts to nesting birds. The nesting season is typically February 15 through August 31. This would ensure that no active nests would be disturbed and that habitat removal could proceed rapidly. If vegetation clearing for the grading process takes place during the nesting season, prior to commencement of clearing or grading during the nesting season, all suitable habitat must be thoroughly surveyed for the presence of nesting birds by a qualified biologist. To minimize impacts, if any active nests are detected, a buffer of at least 100 feet (300 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete, as determined by the biological monitor.”

Mitigation Measures

No new impacts nor substantially more severe biological resource related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for biological resources.

Conclusion for Biological Resources

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding biological resources. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the Adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
5. CULTURAL RESOURCES				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Disturb a tribal cultural resource	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site is vacant and undeveloped, and that the development of the Project Site does not include alteration or destruction of a historic site. Therefore, it was determined that significant impacts would not occur and that mitigation measures were not recommended.

Impacts Associated with the Proposed Project

No New Impact – CEQA defines a “historical resource” as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) is determined to be a historical resource by a project’s Lead Agency (PRC Section 21084.1 and *State CEQA Guidelines Section 15064.5(a)*). Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *State CEQA Guidelines*. The buildings, structures, roads, and infrastructure in the project area are less than 50 years old. In addition, there are no structures on the Project Site. Therefore, the Proposed Project would not alter or destroy a historic site, and

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would not result in any new or more severe impacts than was described in the Adopted ND for the Project Site.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Adopted ND Summary of Impacts

The Adopted ND determined that the development of CBP Project Site would not alter or destroy an archaeological site and significant impacts were not identified

Impacts Associated with the Proposed Project

No New Impact – Cultural and paleontological resources records searches and literature reviews conducted by Material Culture Consulting in October and November 2016. Material Culture Consulting conducted a cultural and paleontological literature and geographic review of the project area. They contacted the Native American Heritage Commission (NAHC) for a review of the Sacred Land File (SLF) and a list of culturally affiliated tribes within the project region. They also coordinated with staff at the Eastern Information Center (EIC) at the University of California, Riverside to conduct a cultural resources records search of the project area along with a 1-mile radius around the project area. Finally, a review was conducted of online paleontological databases, and Material Culture Consulting contacted the Los Angeles County Museum of Natural History (LACM) to conduct a fossil locality search. The geographic review included historic aerials, historic-era topographic maps, and the highest resolution geology maps available for the project area.

No cultural resources or Sacred Lands are previously recorded within the Project Site. A total of 79 cultural resources lie within a 1-mile radius of the project area. One previous study was conducted over a portion of the Project Site (Foster et al. 1991), resulting in negative findings within the Project Site. A total of 30 additional cultural resources studies have taken place within 1-mile of the Project Site. The Project Site has not been developed in the past, however it has been subjected to repeated grading and agricultural plowing since at least 1966.

Based on these results and the current conditions of the Project Site, Material Culture Consulting concluded that there is very little potential for encountering cultural resources during project implementation. Therefore, no further cultural resources assessments or mitigation measures are recommended. Although no impacts are anticipated, Standard Condition of Approval P-20 is incorporated as PPP-7 and states that if potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the Project Site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Consistent with the Adopted ND, impacts of the Proposed Project would remain less than significant related to destruction of an archaeological site with implementation of City's Standard Conditions of Approval. There would be no new impacts.

Source: Appendix C. Cultural & Paleontological Resources Literature Review & Records Search (Material Culture Consulting, 2016).

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c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Adopted ND Summary of Impacts

The Adopted ND determined that the development of the Project Site would not alter or destroy a paleontological resource and significant impacts were not identified.

Impacts Associated with the Proposed Project

No New Impact - No fossil localities are known to have originated from the Project Site, however one bison fossil is known from within a 1-mile radius of the Project Site. According to the LACM records search, the Project Site sediments are mapped as younger Quaternary alluvial fan deposits, which may overlay older Quaternary deposits that contain significant vertebrate fossils. According to our review of geologic maps the area appears to be mapped as Very Old Alluvial Fan Deposits, which date to the early Pleistocene. According to Riverside County Planning Department, the project area is considered High B sensitivity for paleontological sensitivity (Riverside County Land Identification System, Paleontological Sensitivity Overlay). Based on the paleontological records search and literature review, there is a high potential for encountering paleontological resources in excavations extending deeper than 4 feet below surface. According to County requirements, areas identified as High B sensitivity will require preparation of a Paleontological Resource Impact Mitigation Program (PRIMP) will need to be filed with the Riverside County Geologist prior to site grading. The PRIMP is a standard condition of approval, included as PPP-7, and will identify the steps necessary to ensure impacts to paleontological resources remain less than significant.

Source: Appendix C. Cultural & Paleontological Resources Literature Review & Records Search (Material Culture Consulting, 2016); Planning Division Conditions of Approval

d) Disturb any human remains, including those interred outside of formal cemeteries?

Adopted ND Summary of Impacts

The Adopted ND determined that the development of the Project Site would not impact human remains and significant impacts were not identified. All development was subject to State Health and Safety Code Section 7050.5, and if human remains were discovered during ground disturbing activities, requirements pursuant this regulation would ensure there are no significant impacts.

Impacts Associated with the Adopted ND Summary of Impacts Project

No New Impact – The Project Site has been previously rough graded and it is highly unlikely that buried cultural resources could be identified during the grading or construction process that could not be seen during a surface survey. Should unknown human remains be unearthed during future development activities, the regulations established in California Health & Safety Code (section 7050.5), CEQA (section 15064.5), and Public Resources Code (section 5097.98) would require that the Riverside County Coroner be contacted within 24 hours of discovery and no further disturbance occur until the Coroner has made the necessary findings and disposition of the remains. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make a determination as to the Most Likely Descendent. The measures outlined in State law are standard

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conditions of development, and are incorporated into the project as PPP-7. Compliance with PPP-7 would ensure that potential impacts to human remains would remain less than significant.

Overall, consistent with the Adopted ND, compliance with the existing California Health and Safety Code regulations, would ensure impacts related to potential disturbance of human remains are less than significant, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND for the Project Site.

Source: City of Moreno Valley Planning Division Conditions of Approval.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to cultural resources.

PPPs

The following measure is the standard condition of development that applies to the proposed project and would help to reduce and avoid potential impacts related to cultural resources:

PPP-7: Undiscovered Cultural Resources and Human Remains

If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98 and according to Tribal customs and traditions.

Mitigation Measures

No new impacts nor substantially more severe cultural resources related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for cultural resources.

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Conclusion for Cultural Resources

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding cultural resources. There have not been 1) changes to the project that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous Adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the Adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
6. GEOLOGY AND SOILS				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Be located on expansive soil, as defined in the California Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

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Would the project:

a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- i. ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?***

Adopted ND Summary of Impacts

The Adopted ND determined that no known active faults traverse the Project Site, and that the Project Site does not lie within an Alquist-Priolo Earthquake Fault Zone. Thus, impacts related to rupture of a known earthquake fault were considered less than significant.

Impacts Associated with the Proposed Project

No New Impact – The Project Site is not within an Earthquake Fault Zone as identified by the Alquist-Priolo Earthquake Fault Zoning Act. The nearest mapped fault is located approximately 6 miles to the east of the site as depicted on Figure 5.6-2 of the City of Moreno Valley General Plan FEIR. Because the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone, there is no new impact associated with the potential for rupture of a known fault within such a zone. Thus, the Proposed Project would not result in any new or more severe impacts compared to the Adopted ND.

Source:

Moreno Valley General Plan FEIR (2006)
Geotechnical Investigation, Centerpointe Business Park, Southern California Geotechnical (2005)

- ii. ***Strong seismic ground shaking?***

Adopted ND Summary of Impacts

The Adopted ND determined that adherence to the California Building Standards Code (CBSC) would reduce any potential ground shaking effects to a less than significant level.

Impacts Associated with the Proposed Project

No New Impact – The Project Site lies within a region of active faulting and seismicity in Southern California. Potential regional sources for major ground-shaking hazards include the San Andreas, San Jacinto, and Elsinore fault zones. This risk is not considered substantially different than that of other similar properties in the Southern California area. The Proposed Project would be required to construct the proposed building in accordance with the CBSC, also known as California Code of Regulations (CCR), Title 24 and the City Building Code. The CBSC and City Building Code are designed to preclude significant adverse effects associated with strong seismic ground shaking. Thus, the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

- iii. ***Seismic-related ground failure, including liquefaction?***

Adopted ND Summary of Impacts

The Adopted ND determined that adherence to the CBSC would reduce any potential liquefaction

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effects to a less than significant level.

Impacts Associated with the Proposed Project

No New Impact – According to the City of Moreno Valley General Plan, the Project Site is not located within a “Potential Liquefaction” zone (refer to Figure 6-3, Geologic Faults & Liquefaction). Based on regional geology, the risk of ground failure, including liquefaction-induced settlement, is remote due to the subsurface conditions that include medium dense well-graded granular soils and a lack of shallow groundwater table. Moreover, it is noted that the Project does not propose activities or uses that would cause or result in rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction. Furthermore, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the requirements of the CBSC, which is anticipated to reduce the risk of seismic-related ground failure to less than significant levels. For these reasons, there is still a less than significant impact associated with the potential for seismic-related ground failure, including liquefaction. Thus, the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Source: Moreno Valley General Plan (2006)

Geotechnical Investigation Proposed Commercial Industrial Development, (Southern California Geotechnical, 2005)

iv. Landslides?

Adopted ND Summary of Impacts

The Adopted ND described that Project Site is located on generally flat land with minimal possibilities of resulting in onsite or offsite landslide, lateral spreading, collapse, or rock fall hazards. In addition, the Adopted ND determined that the project would not be located on unstable soil, and that there would be no impacts.

Impacts Associated with the Proposed Project

No New Impact – The Project Site continues to be relatively flat with a 1.5 percent slope, as is the surrounding area. There are no hillsides or steep slopes on the site or in the vicinity of the Project Site. Accordingly, property would not be exposed to any risk of landslide. Due to the flat topography of the Project Site, the potential for landslide or rockfall in the future is considered to be very low and there would be no impact as a result. Thus, the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

b) Result in soil erosion or the loss of topsoil?

Adopted ND Summary of Impacts

The Adopted ND determined that the development of the site could result in the loss of topsoil from grading activities, but not in a manner that would result in significant amounts of soil erosion. The Adopted ND determined that implementation of Best Management Practices (BMPs) would reduce the impact to below a level of significance. Impacts would be less than significant.

Impacts Associated with the Proposed Project

No New Impact. Consistent with the Adopted ND, construction of the Proposed Project has the potential to contribute to soil erosion and the loss of topsoil. Grading activities that would be

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required for the Proposed Project would expose and loosen topsoil, which could be eroded by wind or water.

The potential for erosion or loss of topsoil would be negligible with development and implementation of erosion control Best Management Practices (BMPs) required of the Stormwater Pollution Prevention Plan (SWPPP) for any development on the Project Site. An Erosion Control Plan would be prepared prior to construction as part of the overall SWPPP to reduce sedimentation, erosion, and other water quality impacts associated with construction. The SWPPP would establish BMPs for erosion and sediment control and non-storm water management during construction activities. The Proposed Project includes installation of landscaping throughout the Project Site and areas of loose topsoil would not existing with the operation of the Proposed Project.

The Proposed Project includes installation of landscaping throughout the Project Site and areas of loose topsoil that could erode by wind or water, would not exist upon operation of the Proposed residential uses. In addition, as described in Section 9, Hydrology and Water Quality, the hydrologic features of the Proposed Project have been designed to slow, filter, and retain stormwater within landscaping and biofiltration systems on the Project Site, which would also reduce the potential for stormwater to erode topsoil. Additionally, a Water Quality Management Plan (WQMP) has been prepared to prevent stormwater pollution and manage urban runoff after construction, and which would also ensure that RWQCB requirements and appropriate operational BMPs would be implemented to minimize or eliminate the potential for soil erosion or loss of topsoil to occur. (see Appendix G) Examples of BMPs included in the WQMP include preservation of existing grading patterns, preservation of natural infiltration capacity, and minimization of impervious areas. During construction, the project would be required to comply with the SCAQMD's Fugitive Dust restrictions (Rule 403). Project Site grading and infrastructure would be designed to City standards to minimize erosion potential.

Preparation and implementation of a SWPPP with an Erosion Control Plan is required by PPP-8. Preparation and implementation of a WQMP is required by PPP-9. Compliance with SCAQMD Rule 403 is a standard condition of development and is incorporated into the Proposed Project as PPP-3. Compliance with these PPPs, which implement standard conditions and BMPs required by local and State regulation, would reduce any potential impacts to below a level of significance. Overall, the Proposed Project would not result in any new or more severe impacts related to soils erosion or the loss of topsoil than was described in the Adopted ND for the Project Site.

Source: Appendix G. WQMP (Albert A. Webb Associates, 2016).

Would the project:

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?**
- d) Be located on expansive soil, as defined in the California Building Code, creating substantial risks to life or property?**

Adopted ND Summary of Impacts

The Adopted ND described that Project Site is located on generally flat land with minimal possibilities of resulting in landslide, lateral spreading, collapse, or rock fall hazards. In addition,

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the Adopted ND determined that developments the Project Site would not be located on unstable soil, and that there would be no impacts.

Impacts Associated with the Proposed Project

No New Impact – According to the City of Moreno Valley General Plan and the 2005 geotechnical report prepared by Southern California Geotechnical (contained in Appendix D), the Project Site is not located in an area subject to landslide, lateral spreading, subsidence or liquefaction hazards. Expansion testing conducted on a selected sample of clay bearing soil indicates that the soil tested exhibits a "very low" to "low" expansion potential. The Proposed Project would be subject to the recommendations of an update to the 2005 geotechnical report, as well as future geotechnical recommendations associated with future grading and building permits, which would ensure that any potentially unstable soils present on the Project Site are appropriately remediated through site design considerations. The risk associated with unstable soils causing harm to humans or structures remains below a level of significance. There would be no new impacts.

Source:

Appendix D: Geotechnical Investigation (Southern California Geotechnical, 2005); Moreno Valley General Plan (2006); Update of Geotechnical Report (Southern California Geotechnical, 2017)

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

Adopted ND Summary of Impacts

The Adopted ND concluded that development of the Project Site is for development and operation of industrial facilities and would be connected to the jurisdictional sewer system. The Project would not have a need for a septic system or alternate waste water disposal. Less than significant impacts were identified.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would connect to the existing sewer system in the adjacent street, and would not utilize septic tanks or alternative wastewater disposal systems. Thus, impacts would not occur; and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND for the Project Site.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to geology and soils.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to geology and soils:

PPP-3: Fugitive Dust

(Refer to Section 3, Air Quality, for the text of this PPP)

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PPP-8: Stormwater Pollution/Erosion Control

The project would comply with National Pollutant Discharge Elimination System (NPDES) requirements for control of discharges of sediments and other pollutants during construction. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and submitted to the State Water Resources Control Board. The project will obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) in effect at the time of grading permit application. The SWPPP will require preparation of an Erosion & Sediment Control Plan.

PPP-9: Water Quality Management Plan

The project would comply with NPDES requirements for control of discharges of sediments and other pollutants during operations of the facility through preparation and implementation of a Water Quality Management Plan (WQMP) in compliance with the Municipal Separate Storm Sewer System (MS4) Permit in effect for the Santa Ana Regional Water Quality Control Board (RWQCB) at the time of grading permit application.

Mitigation Measures

No new impacts nor substantially more severe geology and soils related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for geology and soils.

Conclusion for Geology and Soils

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding geology and soils. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
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7. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG Thresholds

The City of Moreno Valley utilizes SCAQMD’s GHG thresholds and analysis methodologies to evaluate GHG emissions from development projects. SCAQMD does not have approved thresholds; however, does have draft thresholds that provides a tiered approach to evaluate GHG impacts, which includes:

- Tier 1: determine whether or not the project qualifies for any applicable exemption under CEQA
- Tier 2: determine whether the project is consistent with a greenhouse gas reduction plan, which would mean that it does not have significant greenhouse gas emissions.
- Tier 3: determine if the project would be below screening values; if a project’s GHG emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO2e per year
 - Residential: 3,500 MTCO2e per year
 - Commercial: 1,400 MTCO2e per year
 - Mixed use: 3,000 MTCO2e per year

In addition, SCAQMD methodology for project’s construction are to average them over 30-years and then add them to the project’s operational emissions to determine if the project would exceed the screening values listed above.

To determine whether the project is significant, this analysis uses the SCAQMD draft local agency Tier 3 threshold of 3,000 MTCO2e per year for all land use types.

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Adopted ND Summary of Impacts

Greenhouse gas impacts were not analyzed in the Adopted ND because existing CEQA criteria and thresholds for analyzing greenhouse gas emissions did not exist at the time the 2005 ND was prepared.

Impacts Associated with the Proposed Project

No New Impact – The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. In September 2006, the State enacted the Global Warming Solutions Act (Assembly Bill 32), which was created to address greenhouse gases emitted by human activity and implicated in global climate change. The Act requires that the GHG emissions in California be reduced to 1990 levels by 2020. This is part of a larger plan in which California hopes to reduce its emissions to 80 percent below 1990 levels by 2050.

Additionally, through the Climate Action Reserve, general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., from the project site itself and from activities directly associated with operations) and indirect sources (i.e., not directly associated with the project, but impacted by its operations). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include offsite electricity generation and non-company owned mobile sources.

As discussed in Section 3, Air Quality, the Proposed Project's primary contribution to air emissions is attributable to construction activities. Project construction would result in GHG emissions from construction equipment, project equipment/materials deliveries, and construction workers' personal vehicles traveling to and from the site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

The primary emissions that would result from the proposed project occur as carbon dioxide (CO₂) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N₂O) and methane (CH₄), as well as other GHG emissions related to vehicle cooling systems. To account for variations in the effectiveness of these gases on climate change, a measure called CO₂-equivalent (CO₂e) is used.

Pursuant to Section 15064.4 of the State CEQA Guidelines, the treatment of GHG emissions follows a process of quantification of project-related GHG emissions, determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant.

Construction

Similar to the Adopted ND, the Proposed Project construction activities would be temporary, but could contribute to greenhouse gas impacts. Construction activities would result in the emission of GHGs from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers.

The total estimated construction-related GHG emissions for construction of the Proposed Project are shown in Table GHG-1. As shown, the estimated GHG emissions during construction would

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equal approximately 383 MTCO₂e, which is equal to approximately 13 MTCO₂e per year after amortization over 30 years per SCAQMD methodology.

Table GHG-1: Construction-Related GHG Emissions

Emission Type	Estimated MTCO₂e Emissions Per Year
Year 2017 Total Mitigated Construction Emissions	383
Annual Construction (amortized over 30 years)	13
NOTES: CO ₂ e= carbon dioxide equivalent; MT =metric tons; MT/yr = metric tons per year. **"Mitigated" emissions refer to the application of enhanced fugitive dust control measures incorporated into PPP-3.	
Source: Giroux & Associates, 2017.	

Operation

Like the Adopted ND, the area and indirect sources of operational GHG emissions associated with the Proposed Project would primarily result from motor vehicle trips, electricity and natural gas consumption, water transport (the energy used to pump water), and solid waste generation. GHG emissions from electricity consumed by the proposed building would be generated off-site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source.

The estimated operational GHG emissions that would be generated from implementation of the Proposed Project are shown in Table GHG-2. Additionally, in accordance with SCAQMD's recommendation, the Proposed Project's amortized construction-related GHG emissions from Table GHG-1 are added to the operational emissions estimate in order to determine the Proposed Project's total annual GHG emissions.

Table GHG-2. Construction and Operations-Related GHG Emissions

Emission Source	Estimated Emissions CO₂e (MT/yr)
Construction	
Annualized Mitigated Construction (Amortized over 30 years)	13
Project Operations	
Area Sources	0
Energy Consumption	88
Mobile Sources	830
Solid Waste	47
Water Consumption	128
Total (Construction and Operational Emissions)	1,106
Significance Threshold	3,000
Exceeds threshold?	No
NOTES: CO ₂ e= carbon dioxide equivalent; MT/yr = metric tons per year. Source: Giroux & Associates, 2017.	

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As shown in Table GHG-2, the Proposed Project's total net annual GHG emissions would be approximately 1,106 MTCO₂e per year (detailed calculations are included in Appendix A). This would not exceed the threshold of 3,000 MTCO₂e per year. Therefore, the GHG emissions resulting from implementation of the Proposed Project would be less than significant. Thus, the Proposed would not result in any new or more severe GHG related impacts than what would have been generated by the development footprint analyzed in the Adopted ND. Therefore, there would be no new significant impacts as a result of development of the Proposed Project, both compared to existing conditions, and to the Adopted ND.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Adopted ND Summary of Impacts

Greenhouse gas impacts were not analyzed in the Adopted ND because existing CEQA criteria and thresholds for analyzing greenhouse gas emissions did not exist at the time the 2005 ND was prepared.

Impacts Associated with the Proposed Project

In 2012, the Moreno Valley City Council approved the Energy Efficiency and Climate Action Strategy and the related Greenhouse Gas Analysis. These documents identify potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The Strategy also prioritizes implementation of programs, policies, and projects based upon energy efficiency, cost efficiency and potential resources. While the emphasis is first on municipal facilities and operations, several measures address programs to reduce emissions in the community.

There are several GHG measures applicable on a project-specific basis. Although most measures do not directly relate to a warehousing operation, for purposes of consistency, the Proposed Project should incorporate any feasible measures from the following action menu:

- Measure B-4: Coordinate with Southern California Edison or Moreno Valley Utility, Eastern Municipal Water District, and The Gas Company to maximize rebates for all building projects.
- GHG Policy R2-T1 Land Use Based Trips and VMT Reduction Policies the efficient delivery of services and goods. A local warehousing operation would assist in distribution of goods for the region.

The California Air Resources Board (CARB) Climate Change Scoping Plan includes measures that are applicable to the Proposed Project. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). Of the Recommended Actions contained in CARB's Scoping Plan, the actions that are applicable to the Proposed Project include: maximizing building and appliance efficiency, implementing green building practices (CALGreen), reduction of solid waste, and efficient use of water.

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The Proposed Project would be implemented consistently with the CALGreen requirements to ensure that resources would be used efficiently. This would require that the new building reduce water consumption, provide increased building system efficiencies, divert construction waste from landfills, and utilize low pollutant emitting finish materials, which would be consistent with the CARB Scoping Plan. In addition, the City's Standard Conditions of Approval, requires electrical hookups for refrigerated trailers, and does not allow the use of truck engines for auxiliary power for extended periods of time.

As detailed above, the GHG emissions generated by the Proposed Project would not exceed the SCAQMD draft screening threshold of 3,000 metric tons per year of CO₂e; thus, implementation of the Proposed Project would not generate substantial quantities of GHG emissions. In addition, emissions from vehicles, which are the main source of operational GHG emissions associated with the Proposed Project, would be reduced through implementation of federal and state fuel and air quality emissions requirements that are implemented by CARB, as well as the City's Energy Efficiency and Climate Action Strategy.

Overall, implementation of the Proposed Project would not conflict with the CARB Scoping Plan goals and actions for reducing the emissions of GHGs. Thus, the Proposed Project would not conflict with applicable plans adopted for the purpose of reducing GHG emissions, and impacts would be less than significant. Furthermore, the Proposed Project would not result in any new or more severe GHG related impacts than would have been generated by a building with a 82,994 SF footprint, as analyzed in the Adopted ND.

Source:

Appendix A. Air Pollutant and Greenhouse Gas Emissions Modeling Sheets (Giroux & Associates, 2017).

City of Moreno Valley Energy Efficiency and Climate Action Strategy (City of Moreno Valley, 2012)

City of Moreno Valley Greenhouse Gas Analysis (Atkins, 2012).

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to greenhouse gas emissions.

Mitigation Measures

No new impacts nor substantially more severe greenhouse gas emissions related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for greenhouse gas emissions.

Conclusion for Greenhouse Gas Emissions

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding greenhouse gas emissions. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a

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substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
8. HAZARDS AND HAZARDOUS MATERIALS				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) For a project within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
h) Expose people or structures to a risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site with industrial and warehousing uses would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts were less than significant.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project is not expected to result in impacts from hazards and hazardous materials with respect to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

A Phase I Environmental Site Assessment (ESA) for the project parcel was conducted by Hillman Consulting in 2016 (see Appendix E). The Phase I ESA found no evidence to indicate that the site has had problems associated with hazardous wastes or materials. Although the March Air Reserve Base (MARB), just southwest of the Project Site, is identified as having the potential for groundwater contamination associated with its past use, the Phase I ESA reports conclude that due to the orientation of groundwater flows in the area and distance to the MARB, the potential for groundwater contamination at the Proposed Project site is considered low.

Project Construction

Construction of the Proposed Project would not involve the routine transport, use, or disposal of significant amounts of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. During construction, the Proposed Project would involve the transport of general construction materials (i.e., concrete, wood, metal, fuel, etc.) as well as the materials necessary to construct the proposed building. Construction activities would involve the use of hazardous materials such as fuels and greases for the fueling and servicing of construction equipment. Such substances may be stored in temporary storage tanks/sheds that would be

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located on the Project Site or within the existing building. Although these types of materials are not acutely hazardous, they are classified as hazardous materials and create the potential for accidental spillage, which could expose workers.

The use, storage, transport, and disposal of hazardous materials used in construction of the building and Project Site would be carried out accordance with federal, state, City and County regulations. No extremely hazardous substances (i.e., governed under Title 40, Part 335 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or disposed of as a result of project construction. As needed, Material Safety Data Sheets for all applicable materials present onsite would be made readily available to onsite personnel as required by the Moreno Valley Fire Department. During construction of the building, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

Operations

Operation of the Proposed Project includes similar general industrial warehouse and office uses, as the uses analyzed in Adopted ND; which generally use limited hazardous materials, such as: cleaning agents, paints, pesticides, batteries, and aerosol cans. Although the Proposed Project would utilize common types of hazardous materials, normal routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the Project.

In addition, should any future business that occupies the proposed building handle acutely hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) the business would require a permit from the Riverside County Department of Environmental Health Hazardous Materials Branch. Such businesses are also required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the County Hazardous Materials Branch and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business. In addition, any business handling at any one time, greater than 500 pounds of solid, 55 gallons of liquid, or 200 cubic feet of gaseous hazardous material, is required, under Assembly Bill 2185 (AB 2185), to file a Hazardous Materials Business Emergency Plan with the County. A Hazardous Materials Business Emergency Plan is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the Hazardous Materials Business Emergency Plan is to satisfy federal and state right-to-know laws and to provide detailed information for use by emergency responders.

Therefore, if future businesses that use or store hazardous materials occupy the proposed building, the business owners and operators would be required to comply with all applicable federal, state, and local regulations, as permitted by the County Department of Environmental Health Hazardous Materials Branch to ensure proper use, storage, and disposal of hazardous substances. Overall, operation of the Proposed Project would result in a less than significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND for the Project Site.

Source: Appendix E. Phase I ESA (Hillman Consulting, 2016).

c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

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Adopted ND Summary of Impacts

The City determined that the development of the Project Site would not significantly impact a school within one-quarter mile of the Project Site.

Impacts Associated with the Proposed Project

No New Impact – The nearest school site, Alta Vista Public Charter School, is located approximately .3 mile east of the site at 24021 Alessandro Blvd, Moreno Valley, CA 92553 and Serrano Elementary is approximately 0.5 miles to the south. Therefore, no schools are proposed to be located within one-quarter mile of the Project Site and there would be no hazardous materials impact to schools located one-quarter mile of the site. Like the Adopted ND, impacts would not occur from implementation of the Proposed Project, and impacts would not result in any new or more severe impacts than was described in the Adopted ND.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and as a result, it would not create a significant hazard to the public or the environment.

Impacts Associated with the Proposed Project

No New Impact – The Phase I ESA for the project parcel reviewed the lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The Project Site is not located on any of the lists; therefore, there would be no impact associated with this hazard. Thus, the Proposed Project and would not result in any new or greater impacts than anticipated in the Adopted ND.

Source: Appendix E. Phase I ESA (Hillman Consulting, 2016).

- e) For a project within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

Adopted ND Summary of Impacts

The Project Site is approximately 700 northeast of the March Air Reserve Base. The Adopted ND determined that while the Project Site is located within an airport land use plan, it would not result in a safety hazard for people working in the project area because the flight pattern is parallel and away from the Project Site.

Impacts Associated with the Proposed Project

No New Impact – The Project Site is located 1 mile to the east of March Air Reserve Base/Inland Port Airport and is within the jurisdiction of the March Air Reserve Base/Inland Port Airport Land

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Use Compatibility Plan (ALUP). This site is located within Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Influence Area, pursuant to the ALUP adopted for the environs of this airport on November 13, 2014. The ALUP establishes land use compatibility policies associated with various Airport Influence Areas, including identification of land uses that require discretionary review by the Riverside County Airport Land Use Commission (ALUC). Zone E is identified as “Other Airport Environs” and uses within this zone are unrestricted. The Proposed Project was submitted to ALUC for determination of its consistency with the ALUP. ALUC determined the Proposed Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUP in a letter issued on January 5, 2017, subject to conditions. The implementation ALUC conditions is a standard condition of development and is incorporated into the Proposed Project as PPP-10.

Due to the low occupancy level of the industrial/warehousing site, the impacts of the airport on individuals working on the site are considered less than significant. Refer to Section 16 (Transportation and Traffic), below, for a discussion of the Proposed Project’s impacts to airport operations. Therefore, there would be no new significant impacts as due to Proposed Project implementation. Furthermore, the Proposed Project would not result in any new or more severe impacts related to an airport than was described in the Adopted ND.

Source:

Appendix F. Riverside County Airport Land Use Commission Development Review – Director’s Determination
March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (2014).

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Adopted ND Summary of Impacts

The Adopted ND determined that the development of the Project Site would not result in a safety hazard for people working in the project area because the due to a private airstrip; there were no impacts.

Impacts Associated with the Proposed Project

No New Impact – Although the Project Site is located near the March Air Reserve Base, this airfield is not a private airfield and there are no other private airfields or airstrips in the vicinity of the Project site. A significant impact associated with private airstrips would not occur. The Proposed Project would not result in any new or more severe impacts related to a private airstrip than was described in the Adopted ND.

g) Impair implementation of an adopted emergency response plan or emergency evacuation plan?

Adopted ND Summary of Impacts

The Adopted ND determined that the CBP, including the Proposed Project Site, would not have any impacts on the City’s Emergency Response or Emergency Evacuation Plans.

Impacts Associated with the Proposed Project

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No New Impact – The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the Proposed Project would be required to maintain adequate emergency access for emergency vehicles as required by the City. The Moreno Valley Fire Department would review the development plans prior to approval to ensure adequate emergency access pursuant to the requirements in the Uniform Fire Code and Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9). As a result, the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant, and would not result in any new or greater impacts than anticipated in the Adopted ND.

h) Expose people or structures to a risk of loss, injury or death involving wildland fires?

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site is not located in a high fire hazard area, and that the project would be required to adhere to all Fire Department requirements, which ensured impacts would be less than significant level.

Impacts Associated with the Proposed Project

No New Impact – Like the Adopted ND, the Project Site is not identified within or adjacent to an area of high fire risk. The Project Site is located in an urbanized community, with no areas of substantial native vegetation in the vicinity. The project area is not mapped as an area of high wildland fire hazard by the California Department of Forestry and Fire Protection (CAL FIRE). There would be a less than significant impact from wildland fire due to the urban nature of the area. Thus, the Proposed Project and would not result in any new or greater impacts than anticipated in the Adopted ND.

Source:

California Department of Forestry and Fire Protection (CAL FIRE). Very High Fire Hazard Severity Zones in LRA, Western Riverside County.
City of Moreno Valley General Plan (2006)

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable.

PPPs

PPP-10: Airport Land Use Commission Consistency Conditions

- Any new outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- The following uses are not included in Proposed Project and shall be prohibited:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a

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landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

(b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

(c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)

(d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

- The landowner shall give the following notice to all prospective purchasers of the property and tenants of the building, and shall be recorded as a deed notice:

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)(13)(A)

- Any new detention basin(s) on the site (including bioswales) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basin(s) that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping.

Mitigation Measures

No new impacts nor substantially more severe hazards and hazardous materials related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for hazards and hazardous materials.

Conclusion for Hazards and Hazardous Materials

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding hazards and hazardous materials. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with

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respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
9. HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a deficit in aquifer volume or lowering of the local groundwater table?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures that could impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
i) Expose people or structures to loss, injury or death from flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

a) Violate any water quality standards or waste discharge requirements?

Adopted ND Summary of Impacts

The Adopted ND determined that development and operation of the Project Site would not violate any water quality standards or waste discharge requirements.

Impacts Associated with the Proposed Project

No New Impact – Water runoff from developed areas of the Project Site may contain urban pollutants such as petroleum products, fertilizers, pesticides, soils, etc., which can degrade water quality if discharged from the site. The Project’s Preliminary WQMP is prepared in accordance with City requirements to identify pollutants of concern and identify means to reduce their discharge from the site (i.e., Best Management Practices, BMPs). Required adherence to the project-specific WQMP would reduce the amount of pollutants in stormwater runoff, as well as non-storm water discharges.

Furthermore, the project will be required to comply with the Santa Ana River Basin Water Quality Control Program and the City of Moreno Valley’s National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit requirements (which requires the preparation of Stormwater Pollution Prevention Program (SWPPP) to control sediment/siltation runoff) to minimize the discharge of pollutants in storm water during short-term construction and long-term operational activities. (See PPP-8 and PPP-9). Mandatory compliance with the Project’s WQMP, in addition to compliance with NPDES Permit requirements, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged into receiving waters.

With implementation of the operational BMPs that would be required by the City pursuant to the NPDES permit, which would be verified during the permitting process for the Proposed Project, potential pollutants would be reduced to the maximum extent feasible and development of the Proposed Project would not violate any water quality standards or waste discharge requirements, including but not limited to increasing pollutant discharges to receiving waters, and impacts would be less than significant. Thus, the Proposed Project would not result in any new or more severe impacts than those associated with development of the Project Site as described in Adopted ND.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a deficit in aquifer volume or lowering of the local groundwater table?

Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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Adopted ND Summary of Impacts

The Adopted ND determined that development and operation of the CBP Project Site would not significantly deplete groundwater supplies.

Impacts Associated with the Proposed Project

No New Impact – Similar to the previous analysis, the Proposed Project would not deplete groundwater supplies. The Project Site is located within the Perris North Groundwater Basin. There are currently few domestic uses for groundwater within the City, due to salinity/water quality issues, and the City primarily relies on imported water from the Eastern Municipal Water District for its domestic water supply. The Proposed Project does not propose the installation of any water wells that would directly extract groundwater; however, the change in pervious surfaces to impervious surfaces that would occur with development of the site could reduce the amount of water percolating down into the underground aquifer that underlies the project site and a majority of the City. However, the project design includes BMPs that would be incorporated to minimize impervious surfaces, to maximize pervious surfaces thereby promoting infiltration and groundwater recharge. As described above, the project would install landscaping that would infiltrate and treat stormwater drainage onsite, and a biofiltration system that would slowly discharge runoff into the existing stormdrain system. As a result, the Proposed Project would not substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and like previously analyzed in the Adopted ND, impacts would be less than significant. Thus, the Proposed Project would not result in any new or more severe impacts compared to development analyzed in the Adopted ND.

c) Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or offsite?

Adopted ND Summary of Impacts

The City determined that the development of the Project Site would not significantly alter the existing drainage pattern of the site or area.

Impacts Associated with the Proposed Project

No New Impact – The Project Site does not include, and is not adjacent to, a stream or river. Thus, impacts related to alteration of the course of a stream or river would not occur.

Construction

Construction of the Proposed Project would require grading and excavation of soils, which would loosen sediment and could result in erosion or siltation. However, construction requires City approval of a grading and erosion control plan per the State General Permit to Discharge Storm Water Associated with Construction Activities (NPDES No. CAS000002), which requires preparation of a SWPPP by a Qualified SWPPP Developer, which would be implemented by the City's Standard Conditions of Approval, listed previously. The grading and erosion control plan and SWPPP are required for plan check and approval by the City's Building and Safety Division prior to provision of permits for the Proposed Project, and would include construction BMPs to reduce erosion or siltation. Typical BMPs for erosion or siltation, include: use of silt fencing, fiber rolls, gravel bags, stabilized construction driveway, and stockpile management (as further described in the response below).

4.0 Environmental Checklist and Analysis

Adherence to the existing requirements and implementation of the required BMPs per the permitting process would ensure that erosion and siltation associated with construction activities would be minimized, and impacts would be less than significant.

Operation

The Project Site exists within an urban context, and is currently served by stormwater conveyance systems. The Project Site is relatively flat and currently slopes at approximately 1.5 percent. The existing drainage pattern for the site is characterized by sheet flows that follow the approximate slope to the southeast corner of the Project Site. The sheet flow discharges southeasterly towards an existing drop inlet that drains into an open channel (Heacock Channel) that runs along Heacock Street. The Heacock Channel is the backbone system that conveys flows from the tributary area, which then continue to flow southerly alongside Heacock Street.

As a prerequisite for development permits, the Project Applicant is required to prepare and submit a comprehensive Project-specific hydrology study and stormwater management plan, to include plans for any modifications or additions to existing facilities. A Preliminary Drainage Study was prepared by Albert A. Webb Associates (September 2016). The Proposed Project proposes minimal subsurface storm drain systems to convey onsite low flows offsite. Site runoff would discharge into outlet structure, which is sized using the 100-year flow rate. The runoff from outlet structure would discharge into an existing 30" storm drain, then drain into Heacock Channel, which ultimately drains into the Perris Valley Storm Drain. The preliminary drainage study demonstrates that drainage would be controlled and would not result in substantial erosion or siltation on- or off-site. In addition, a WQMP is required to be developed, approved, and implemented to satisfy the requirements of the adopted NPDES program, which would be verified by the City's Building and Safety Division through the City's permitting and inspection process. With implementation of the Proposed Project's design features and standard conditions, impacts would be less than significant, and the Proposed Project would not result in any new or more severe impacts than compared to development of the Project Site as analyzed in the 2005 ND.

d) Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Adopted ND Summary of Impacts

The City determined Development of the Project Site would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

Impacts Associated with the Proposed Project

No New Impact– The Proposed Project's impacts to drainage and runoff during construction and operation would be less than significant as follows:

Construction

Construction of the Proposed Project would require grading and excavation of soils, which could temporarily alter the existing drainage pattern of the site or area and result in flooding on- or off-site. However, as described above, implementation of construction requires preparation of a SWPPP by a Qualified SWPPP Developer, as included as Standard Conditions of Approval, listed previously, which would include construction BMPs to limit an increase in runoff flows during construction and reduce the potential for construction related flooding to occur.

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In addition, the Project Site does not receive runoff, and according to the FEMA Flood Insurance Rate Map Number 06065C0761G, the Project Site is located within "Zone X," which is an area determined to be outside of the 0.2 percent annual chance flood. Therefore, there is a low potential for onsite flooding to occur during construction activities, and impacts relating to flooding both on- and off-site during construction would be less than significant and development of the Proposed Project would not result in any new or more severe impacts as compared to the analysis in the Adopted ND.

Operation

As described above, the Project Site is currently undeveloped and pervious. The Proposed Project would include development of pervious surfaces from building pads, driveways, roadways, sidewalks, and other such project features, which would result approximately 222,700 SF of impervious area on the Project Site. Although a substantial change of impervious surfaces would occur by implementation of the Proposed Project, the post-construction drainage would closely mimic the existing drainage conditions. The hydrologic design of the Proposed Project ensure that runoff does not significantly exceed pre-development conditions (Webb Associates 2016). Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. The peak post-condition peak flow rate of 0.173 cfs is 8.8% greater that the pre-condition flow rate of 0.159 cfs. As a result, implementation of the Proposed Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, and impacts would be less than significant; and development of the Proposed Project would not result in any new or more severe impacts as compared to those described in the Adopted ND.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

Adopted ND Summary of Impacts

The City determined that development of the Project Site would not result in significant impacts related to exceeding the capacity of existing stormdrains or otherwise degrade water quality. Impacts were less than significant.

Impacts Associated with the Proposed Project

No New Impact – As described above, the project would include development of pervious surfaces from building pads, driveways, roadways, sidewalks, and other such project features, which would result approximately 222,700 SF of impervious area on the Project Site. Although a substantial change of impervious surfaces would occur by implementation of the Proposed Project compared to existing condition, the post-construction drainage would closely mimic the existing drainage conditions because the Proposed Project would install water quality basin that would capture and retain runoff. As a result, implementation of PPP-8, requiring preparation and implementation of a SWPPP to control construction-period discharges of sediments, and PPP-9, requiring preparation and implementation of a WQMP to control operational-period discharges of sediments, the Proposed Project would not substantially increase the rate or amount of surface runoff to exceed the capacity of stormdrain systems or violate water quality standards, and impacts would be less than significant; and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

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Source:

Appendix G. WQMP (Albert A. Webb Associates, 2016).

Appendix H. Preliminary Drainage Study (Albert A. Webb Associates, 2016).

g) Place housing within a 100-year flood hazard area?

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site is not located with the 100-year floodplain and there were no significant impacts.

Impacts Associated with the Proposed Project:

No New Impact – No residential uses are proposed on the Project Site; thus, no homes would be located within a 100-year flood hazard area.

h) Place within a 100-year flood hazard area structures that could impede or redirect flood flows?

Adopted ND Summary of Impacts

The City determined that development of the Project Site would not cause significant impacts related placing structures in the 100-year floodplain for this portion of the Project Site and it would not cause significant impacts.

Impacts Associated with the Proposed Project

No New Impact – Project site is not located within a 100-year floodplain. The site is designated as Zone X, which is defined as an area outside of the 500-year floodplain. Therefore, there would be no impacts related to 100-year flood hazards. Accordingly, the Project has no potential to place structures within a 100-year flood hazard area that could impede or redirect flood flows. Accordingly, a new significant flood hazard would not occur with implementation of the Proposed Project.

i) Expose people or structures to loss, injury or death from flooding, including flooding as a result of the failure of a levee or dam?

Adopted ND Summary of Impacts

The City determined that development of the Project Site would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Based on the General Plan (Public Health and Safety Element), inundation of Perris Lake Dam would not affect this area of the City. Significant impacts were not identified.

Impacts Associated with the Proposed Project

No New Impact – The Project Site is not within a 100-year floodplain. The nearest dam, Lake Perris, is located approximately 4.3 miles southeast of the subject property. According to Figure 5.5-2, *Floodplains and High Fire Hazards*, of the Moreno Valley General Plan FEIR, and General Plan Figure 6-4, *Flood Hazards*, the Project Site and surrounding areas are not subject to dam inundation hazards. The Proposed Project would be constructed in accord with all applicable building code requirements, compliance with which would avoid any significant injuries or the loss

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of life or property. As analyzed in the Adopted ND, less than significant impacts would occur and no further evaluation of this issue is required. There would be no new impacts resulting from development of the Proposed Project.

Source:

General Plan (2006)

General Plan FEIR (2006)

j) Expose people or structures to inundation by seiche, tsunami, or mudflow?

Adopted ND Summary of Impacts

The City determined that development of the Project Site would not cause significant impacts related to changes in the amount of surface water in any water body.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would not expose people or structures to inundation by seiche, tsunami, or mudflow. The Project Site is not near the coastline and would not be impacted by tsunami waves. There are no standing bodies of water, either onsite or offsite, that could generate seiche waves. Seiches are standing waves in an enclosed or partially enclosed body of water, such as a lake, that can be caused by seismic activity. The Project Site and its surrounding area are generally flat, preventing substantial mudflows. No new impacts would occur on the site as a result of a seiche, tsunami, or mudflow.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

There are no PDFs related to hydrology and water quality.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to hydrology and water quality:

PPP-8: Stormwater Pollution/Erosion Control

Refer to Section 6 (Geology and Soils) for the text of this PPP.

PPP-9: Water Quality Management Plan

Refer to Section 6 (Geology and Soils) for the text of this PPP.

Mitigation Measures

No new impacts nor substantially more severe hydrology and water quality related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for hydrology and water quality.

Conclusion for Hydrology and Water Quality

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental

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document to evaluate project impacts or mitigation measures exist regarding hydrology and water quality. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
10. LAND USE AND PLANNING				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

a) Physically divide an established community?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site with industrial/warehousing uses would not divide an established community. As a result, development of CBP project area with industrial uses, including the Proposed Project Site, was determined to result in less than significant impacts.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would not physically divide an established community. The Project Site is surrounded by a wide range of uses, including industrial, residential, and vacant land. The Project does not propose elements or activities that would disrupt or divide an established community, nor is the Project itself of sufficient scale or intensity to physically divide or disrupt an established community. The Project would not result in the closure of any public rights-of-way or otherwise impede movement in the area. Therefore, development of the building would be compatible with the surrounding uses and would not physically divide an established community. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site is consistent with the land use designations and policies of the General Plan, and would not result in significant impacts.

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Adopted ND Summary of Impacts

No New Impact – The Proposed Project, when approved by the City of Moreno Valley, would not be in conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. The proposed land uses of the project site are subject to 1) the City of Moreno Valley General Plan and Zoning Ordinance and 2) the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (ALUP). Like the Adopted ND, impacts would be less than significant, as described below:

Consistency with City of Moreno Valley General Plan and Zoning Ordinance

The Project Site's General Plan designation is Business Park/Light Industrial, which allows a 1.0 Floor Area Ratio (FAR). The Proposed Project would result in a 0.34 FAR, which is less than the allowable General Plan Land Use designation criteria, and would be consistent with existing growth projections.

The zoning designation is Business Park (BP). The primary purpose of the Business Park (BP) district is to provide for light industrial, research and development, office-based firms and limited supportive commercial uses in an attractive and pleasant working environment and a prestigious location. This district is intended to provide a transition between residential and other sensitive uses and more intense industrial and warehousing uses. Pursuant to the Municipal Code, Permitted Uses Table 9.02.020-1, wholesale, storage, and distribution uses up to 50,000 of less are permitted in the Business Park (BP) zoning district. The Project Site can accommodate two 50,000 SF buildings. The Proposed Project is proposing one 99,978 SF warehouse facility. A variance is required to allow the proposed building, which is over the 50,000 SF maximum individual building size allowed by the development standards for the BP zoning district. The Proposed Project does not propose an increase in overall building area beyond that which is allowed for the BP zone for the Project Site; the variance only requests that instead of two 50,000 SF buildings, the applicant be allowed to combine the square footage into a single 99,978 SF structure.

A variance pursuant to Municipal Code Chapter 9.02.100, Variances, would be needed for the building's square footage, which can be up to 100,000 SF. The following is an assessment of the Proposed Project's ability to comply with the required findings for a variance, as defined by the Municipal Code and Government Code Section 65906:

- 1. Required Finding: That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity.**

Project Consistency: The Project Site is a unique triangular shape, greatly limiting the land area available for the typical rectangular form of industrial and commercial development. Virtually all nearby development sites are square or rectangular, or at least have land area to allow a building (or buildings) of sufficient size pursuant to market demand, while maximizing distance to residential structures across Heacock Street. The Project Site is also adjacent to the Heacock Channel, which creates a significant physical buffer from the residential area to the east, but also necessitates that the Project Site to be accessed from Brodiaea Avenue. Singular access on Brodiaea Avenue creates a hardship by further limiting the area available for the logical placement of two buildings and the required site improvements (e.g., truck circulation, parking and landscaping). In addition, the Project Site is constrained by a 100-foot

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easement for DWR and EWMD on the east side, which prohibits development or any permanent structures with the 100-foot easement area. This significantly constrains the Project Site by forcing the building location to be on the eastern side of the site away from the easement and limiting the ability to locate two 50,000 buildings on the site and meet setback requirements. Because the Project Site is oddly shaped, and limited development area is available, a variance for the development of one building as opposed to two would allow the Project to maximize the setback distance to the residential structures across the street to 250-feet. The Project Site's shape would preclude locating multiple small buildings in a practical design, and the maximum 50,000 SF development standard would deny the property owner a privilege enjoyed by other owners in the zoning district intended for warehousing.

Further, industrial areas immediately to the west of the site are zoned Light Industrial (LI), which allows the same Wholesale, Storage, and Distribution land uses permitted in the Business Park (BP) district, but without the restriction on building sizes of 50,000 SF. Rectangular shaped lots in the BP are capable of placing multiple buildings on one site and maintaining a 250-foot separation distance of the building to residential structures, while the proposed Project Site cannot, creating a practical difficulty and hardship not otherwise shared by others within the surrounding area or vicinity. The Project Site is therefore subject to a stricter standard for development than adjacent sites with the same zoning, because of its anomalous shape.

2. ***Required Finding: That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties in the vicinity and under the same zoning classification.***

Project Consistency: As discussed above, an exceptional condition exists on the Project Site due to the existing odd triangular shape of the Project parcel, the limited access due to the Heacock Channel and the DWR and EWMD easements, are approximately 100 feet wide and prohibit the construction of any permanent structures, and which significantly restrict the site's development capacity and the efficiency of any proposed buildings. This differs from similar properties immediately to the west, in the LI zone, which have a similar warehousing uses proposed on the Project Site, but do not have the burden of a 50,000 SF building size restriction. Similarly, a large majority of parcels located in the BP zone do not have the residential setback constraint, because they are rectangular shaped and able to efficiently use their properties despite the building size restriction.

3. ***Required Finding: That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity and under the same zoning classification;***

Project Consistency: The strict or literal interpretation and enforcement of the specified regulation in the BP zoning district, which restricts the maximum building square footage to 50,000 SF, would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity. Other properties in the vicinity do not have such a unique shape as the Project Site or a large easement, which constrain the site's developable area; they do not have residences within 250 feet of the properties; and they are able to support multiple industrial buildings to fully utilize their properties. The site's shape would preclude locating multiple small buildings in a practical design, and the 50,000 SF development standard would deny the property owner the maximum development potential of the site, a privilege enjoyed by

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other owners in the zoning district intended for warehousing. Development of two buildings would not be possible while taking into account other applicable development standards, including parking lot layout requirements, setbacks, landscaping, buffers, and building separations. Without the variance, the site's development capacity is significantly constrained and is reduced by approximately 50 percent.

4. ***Required Finding: That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties in the vicinity and under the same zoning classification.***

Project Consistency: The granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on the other properties in the vicinity and under the same zoning classification. Most nearby industrial warehouse buildings are not subject to the same physical restrictions as the Project Site, including an unusual parcel layout, limited access, and adjacency to a flood control channel, a 100-foot wide easement for EWMD and DWR, and residences. These limiting factors constrain development, result in the Project Site having a 50 percent lower development capacity than nearby industrial parcels, and limits the ability of the property to be developed to the intensity permitted in the BP zone. In addition, adjacent parcels have the same type of development as proposed on the Project Site, but are not subject to the 50,000 SF area restriction, and in practice numerous structures significantly larger than 50,000 have been developed in the immediate vicinity of the Project Site.

The Proposed Project does not propose an increase in overall building area beyond that which is allowed for the BP zone; the variance only requests that instead of two 50,000 SF buildings. Therefore, the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties in the vicinity under the same zoning classification because the applicant would be allowed to developed up to 100,000 SF of warehouse uses in two buildings but for the shape of the Project Site and unique site constraints.

5. ***Required Finding: That the granting of the variance will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity.***

Project Consistency: The proposed variance will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity. The single building allows for a 250-foot setback from the existing residences on the east side of Heacock Channel that could not otherwise be accommodated with two 50,000 SF buildings. The variance's accommodation for up to 99,978 SF of development within a single structure, rather than two 50,000 SF structures, allows for development in the same scale, form, and use as already exists on parcels to the west and to the south.

As demonstrated throughout this Initial Study/Addendum, a single 99,978 SF building would not result in increased environmental impacts compared to the Adopted ND's development intensity of 82,994. Furthermore, a 99,978 SF building would have similar less-than-significant impacts, including to air quality or GHG emissions, noise levels, traffic generation, demands for utilities or services, water supply and water quality as compared with two 50,000 SF buildings because similar uses would occupy the site in either development configuration. However, the single building would allow efficiency in design and facilities, which would

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reduce water and sewer demands associated with certain building functions, such as restrooms, breakrooms, and other common spaces. Additionally, a single building would allow for greater separation between the residential structures to the east, which furthers the Business Park (BP) district's intended goal to provide a transition between industrial development and residential and other sensitive uses. Therefore, the granting of the variance will not be detrimental to the public health, safety or welfare. Furthermore, the Proposed Project would not be materially injurious to properties or improvements in the vicinity because the applicant has also considered the appearance of the single building, with specific architectural enhancements and landscape improvements to the frontages along Brodiaea Avenue and Heacock Street, which reduce noise and create an aesthetically pleasing edge between the industrial uses to the west the residential uses to the east of Heacock Street for both passersby and area residences.

6. Required Finding: That the granting of a variance is consistent with the objectives and policies of the General Plan and the intent of this title.

Project Consistency: The proposed building's use would be in conformance with the uses permitted in the Business Park/Light Industrial General Plan land use district, and with the existing surrounding industrial/business park land uses. The location, design, and operation of the facility will also be consistent with the other existing industrial uses in the immediate vicinity. The variance, by accommodating industrial development on the site in a form that is already present on adjacent parcels, results in the benefits of economic growth and jobs creation without the negative impacts associated with new industrial development in outlying areas. The variance is therefore supportive of various General Plan objectives and policies, such as:

- Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.
- Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.
- Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.
- Policy 2.5.4 Design industrial developments to discourage access through residential areas.

Issuance of a variance resolves any conflict of the Municipal Code. As described above, the Proposed Project is able to meet the required findings for a variance. (See Section 1, Aesthetics, herein re visual compatibility; Section 3 for Air Quality; and Section 12, Noise). Therefore, there is no impact related to a conflict with the Municipal Code, including the Zoning Code.

Compatibility with March Air Reserve Base/Inland Port ALUP

As discussed in Section 13e herein, development of the Proposed Project was determined to be consistent with the ALUP on January 5, 2017, subject to conditions. The implementation ALUC

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conditions is a standard condition of development and are incorporated into the project as PPP-10. Therefore, the Proposed Project would not result in new impacts.

Sources:

Appendix F. Riverside County Airport Land Use Commission Development Review – Director's Determination

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site did not conflict with any adopted habitat conservation plan (HCP) or natural community conservation plan (NCCP). No significant impacts were identified.

Impacts Associated with the Proposed Project

No New Impact – As described in Item 4 (Biological Resources), above, the Proposed Project would not conflict with the Western Riverside County MSHCP. As discussed, with the payment of required fees and implementation of required pre-construction surveys, the Proposed Project would be consistent with the MSHCP and there would be no new impact. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to land use and planning.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to land use and planning:

PPP-10: Airport Land Use Commission Consistency Conditions

The project shall comply with the requirements of the ALUC Development Review – Director's Determination.

PPP-5: Biology – MSHCP Burrowing Owl Pre-Construction Surveys

(Refer to Section 4 for the text of this PPP)

Mitigation Measures

No new impacts nor substantially more severe land use and planning related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for land use and planning.

Conclusion for Land Use and Planning

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that

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would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding land use and planning. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
11. MINERAL RESOURCES				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would not result in the loss of availability of a known mineral resource in an area classified or designated by the state that would be of value to the region or the residents of the state.

Impacts Associated with the Proposed Project

No New Impact – The Project Site is not utilized for mineral extraction, nor has it been identified as having important resources. The project site is not located within an area known to be underlain by regionally- or locally-important mineral resources, or within an area that has the potential to be underlain by regionally- or locally-important mineral resources, as disclosed by the City's General Plan and the associated General Plan FEIR. Accordingly, implementation of the Proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. There would be no impact. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND for the Project Site.

- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?**

Adopted ND Summary of Impacts

The Adopted ND also determined that development of the Project Site would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

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Impacts Associated with the Proposed Project

No New Impact – See discussion above. The Proposed Project would not result in any new or more severe impacts related to loss of mineral resources than was described in the Adopted ND.

Source:

General Plan (2006)

Moreno Valley General Plan FEIR (2006)

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to mineral resources impacts.

Mitigation Measures

No new impacts nor substantially more severe mineral resources related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for mineral resources.

Conclusion for Mineral Resources

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding mineral resources. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
12. NOISE				
Would the project:				
a) Expose persons to, or generate, noise levels in excess of standards established in the general plan or noise ordinance, or other applicable standards?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Expose persons to, or generate, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Expose people residing or working in the project area, where the project is located within an airport land use plan, to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Expose people residing or working in the project area, where the project is located within the vicinity of a private airstrip, to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

Noise Standards

City of Moreno Valley Noise Element

The City of Moreno Valley specifies outdoor and indoor noise limits for various land uses impacted by transportation noise sources. The noise limits specified in the City's Noise Element are in terms of the Community Noise Equivalent Level (CNEL). The standards state that for residential land use, the exterior noise exposure level shall not exceed 65 CNEL and the interior noise exposure level shall not exceed 45 CNEL. The standards specify that commercial and industrial buildings shall not exceed 50 dB A for interior uses.

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Municipal Code - Operational Noise Standards

The Noise Ordinance included in the City of Moreno Valley Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts from operations at private properties. Section 11.80.030 (C.), Nonimpulsive Sound Decibel Limits states the following: No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category in Table 11.80.030-2 when measured at a distance of 200 feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. Table 11.80.030-02, Maximum Sound Levels (in dBA) For Source Land Uses, shows that the daytime and nighttime standards for commercial uses the levels are 65 dBA and 60 dBA, respectively.

Construction Noise

The City of Moreno Valley has set restrictions to control noise impacts associated with the construction of the Proposed Project. According to Section 11.80.030.D.7, Construction and Demolitions, it states: No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the City Manager or designee.

In addition to the hours of operations limitations provided in the Noise Ordinance, Section 11.80.030 (C.), Non-impulsive Sound Decibel Limits states the following: No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category in Table 11.80.030-2 when measured at a distance of 200 feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.

The City of Moreno Valley Municipal Code does not specifically address construction noise limits; however, it does provide noise level limits for the source land use category when measured at a distance of 200 feet. Since the source land use is other than residential, 65 dBA Leq at a distance of 200 feet is used as the limit for this analysis to assess the construction noise level impacts.

Measured Noise

Noise was measured at the existing residential area adjacent to Heacock Street and Powell Place. The noise monitor was located in front of an existing 8-foot block wall. The rear yard behind this sound wall will experience significantly less traffic noise. Traffic noise from Heacock Street was the primary noise source while car pass-bys on Powell Place was secondary. The data show that the site experiences ambient (Leq) noise of approximately 66.9 dBA. The maximum noise level was 80.3 dBA was from a heavy truck on the nearest lane.

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Adopted ND Summary of Impacts

The Adopted ND determined that although development of the Project Site would increase the ambient noise level in the immediate vicinity during construction, and the general ambient noise level would increase during project operation, the impacts would be less than significant.

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
- d) **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Summary of Impacts with the Proposed Project

The Adopted ND determined that although development and operation of the Project Site would increase the ambient noise level in the immediate vicinity during construction, and the general ambient noise level would increase during project operation, the impacts would be less than significant. The ambient noise level at the intersection of Heacock Street and Powell Placed was measured to be 66.9 dBA Leq.

The analysis in the Adopted ND concluded that impacts related to short term construction related noise were considered less than significant without mitigation.

Worst-case examples of construction noise at 50 feet were analyzed. The peak noise level for most of the equipment that will be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. The nearest existing residential area is located east of the Project Site along Heacock Street. The nearest homes could be approximately 200 feet from the property line and potential construction area. Based on this worst-case distance, the nearest homes may experience a worst case unmitigated peak construction noise levels between 58 and 83 dBA. However, actual construction noise onsite is more subdued. The average noise levels are typically 5 to 15 dB lower than the peak noise levels. Therefore, the closest homes could experience average noise between 43 and 78 dBA due to construction noise on the Project Site.

Several conditions of approval were recommended for this project as part of the 2005 ND and described below:

Local Control of Construction Hours - The most effective method of controlling construction noise is through local control of construction hours through the noise ordinance criteria. Typical construction hours are limited to the daytime between 7 AM and 7 PM, and prohibited on Sundays and holidays.

Limits on Truck Speed - Limiting the speed of trucks involved in construction to 15 mph while traveling on-site will significantly reduce the noise impact of trucks on the adjacent residences. This speed reduction will reduce truck noise by approximately 9 dBA when compared with noise levels produced by trucks traveling at a speed of 35 mph.

Stock Piling Areas should be located as far from the residents as possible - The stocking of construction materials such as steel girder, loading/unloading trucks and moving equipment such as mobile cranes, can create high noise levels. This is not intended to apply to temporary piles of

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the materials that will be used up in a short period of time (i.e., less than 2 weeks). Stock piling area for this project may not be necessary, however if necessary the stock piling area should be located as far as possible from the homes.

The Adopted ND concluded that after implementation of the above conditions of approval, impacts were considered less than significant.

Impacts Associated with the Proposed Project

No New Impact – Impacts from noise are evaluated for short-term (temporary) impacts associated with project construction and long-term (permanent) impacts resulting from project operation.

Short-term Construction Impacts

Construction of the Proposed Project would require use of heavy equipment that would increase noise levels in the immediate project area. The noise from construction activity would fluctuate depending on the particular type, number, and duration of use of construction equipment.

Table N-1 provides both the maximum (L_{max}) and average (L_{eq}) noise levels produced by various types of construction equipment at a distance of 50 feet between the equipment and noise receptor.

Table N-1. Construction Equipment Noise Levels

Construction Equipment	Noise Level at 50 Feet (dBA, L_{max})	Noise Level at 50 Feet (dBA, L_{eq})
Air Compressor	77.7	73.7
Backhoe	77.6	73.6
Chain Saw	83.7	76.7
Compactor (Ground)	83.2	76.2
Concrete Mixer Truck	78.8	74.8
Concrete Pump Truck	81.4	74.4
Concrete Saw	89.6	82.6
Crane	80.6	72.6
Dozer	81.7	77.7
Dump Truck	76.5	72.5
Excavator	80.7	76.7
Flatbed Truck	74.3	70.3
Front End Loader	79.1	75.1
Generator	80.6	77.6
Grader	85.0	81.0
Jackhammer	88.9	81.9
Paver	77.2	74.2
Pneumatic Tools	85.2	82.2
Pumps	80.9	77.9
Roller	80.0	73.0
Scraper	83.6	79.6
Tractor	84.0	80.0
Vacuum Excavator	85.3	81.3
Vacuum Street Sweeper	81.6	71.6

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Construction Equipment	Noise Level at 50 Feet (dBA, L_{max})	Noise Level at 50 Feet (dBA, L_{eq})
Welder/Torch	74.0	70.0

SOURCE: FHWA, 2006.

The sensitive receptors closest to the Project Site are single-family residential uses that are approximately 180 feet across Heacock Street to the east of the eastern Project Site boundary. Due to the distance of the residences to the Proposed Project's construction activities, noise levels would not be substantially increased.

As described above, the ambient noise levels measured at the nearest sensitive receiver is (L50) noise of approximately 62.5 dBA and a background (L90) level of approximately 48.5 dBA. The maximum noise level was 80.3 dBA was from a heavy truck on the nearest lane.

The residential uses would experience an average noise between 64 and 76.2 dBA due to construction noise on the Project Site. The noise monitor was located in front of an existing 8-foot block wall. The block wall at the residential property line would reduce the noise levels by 6 dBA. Therefore, the residential uses would experience an average noise between 58 and 70.2 dBA due to construction noise on the Project Site during the loudest construction phase, grading. As shown in Table AQ-2, grading is expected to last approximately 6 working days as the Site is relatively level. Project construction activities would generate maximum short-term construction equipment related noise increases of 7.7 dB at the closest residential use to the Project Site, when the loudest equipment is operating at the east Project boundary along Heacock Street. However, the noise increases would be temporary in nature, and would not generate continuously high noise levels.

Construction activities would occur throughout the 6.71-acre site and not occur at the property line continuously; most construction equipment would operate near the proposed building site, which is set back 83 feet from the eastern property line, or 263 feet from the nearest residential uses. Additionally, the operation of each piece of construction equipment at the project area would not be constant throughout the construction day, as equipment would be turned off when they are not in use. The typical operating cycle for a piece of construction equipment would involve one or two minutes of full power operation followed by three or four minutes at lower power settings.

An exterior level of 70.2 dB is considered acceptable on a short-term basis, especially during the day when most people are not home. Since construction would occur only during the day, windows could be opened during the evenings and night. Compliance with the City's Noise Ordinance restricting construction hours would ensure that construction noise does not disturb residents during the times they are most likely to be home or during hours when ambient noise levels are likely to be lower (i.e., at night).

The Project Site is an industrial area subject airport noise, loud traffic and operational noise from distribution and cargo loading activities (trucks, loaders, etc.) Homes and industrial uses along Heacock Street are within the 70 dBA CNEL, and measured maximum noise level was 80.3 dBA was from a heavy truck on the nearest lane; therefore, the primary noise source at the nearest homes will continue to be steady traffic on Heacock Street, and temporary construction noise would not be significantly noticeable over the existing noise environment. Any adjacent manufacturing and warehouse uses in area are noise generating uses themselves, and due to

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the limits of grading, location and short-term nature of grading activities. Therefore, compared to existing conditions, the Proposed Project would not result in significant construction noise.

Compared to the Adopted ND, construction of the 99,978 SF building would not result in significantly increased construction noise levels than construction of an 82,994 SF building analyzed in the 2005 ND. Thus, the increase noise levels would occur at short-term periods during the construction workday, which is limited by the City's Municipal Code, the construction noise would continue to be less than significant. No new impacts would occur. Therefore, the Proposed Project would not result in any new or more severe impacts compared to the Adopted ND.

Long-term Operation Impacts

Vehicular Noise

Primary sources of noise in the project vicinity include vehicle noise, aircraft noise, and noise from operational activities associated with adjacent industrial sites. The Project Site is an area within the 70 dBA CNEL range from vehicular noise on Heacock Street. Large industrial manufacturers and warehouses and distribution centers are in the immediate vicinity. The closest sensitive receptors in the vicinity of the Project Site are the nearest residential uses are approximately 250 feet to the east of the proposed building's east elevation. The homes along Heacock Street are between 60 and 75 feet from the centerline, and within the 70 dBA CNEL.

According to the Highway Traffic Noise Analysis and Abatement Policy and Guidance provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway.

As discussed in Section 16, Transportation/Traffic, the additional trips generated by the project would be 356 daily trips, 38 AM peak hour trips and 41 PM peak hour trips. The AM and PM peak hour trips would consist of 26 car trips and 15 truck trips. The limited number of additional trips would not result in a noise level increase of 3 dBA. Therefore, no new impact related to traffic noise would occur. Therefore, the Proposed Project would not result in any new or more severe impacts compared to the impacts discussed in the Adopted ND.

The increase in traffic resulting from implementation of the Project would not result in an increase the ambient noise levels in proximity to the project area, and the 3 dBA threshold would not be exceeded. Thus, impacts related to traffic noise increases to the sensitive receptor locations would be less than significant, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Loading Dock Noise

The Project includes 17 loading docks that would be used for the delivery and pick up of materials stored in the warehouse. Four of the docks are located along the southern side of the building

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and 13 are located along the western side. The greatest loading dock-related noise levels would be related to truck access and back-up alarms. Trucks accessing the Project Site would be a combination of semi-trailer and medium-duty trucks, with noise levels of approximately 65 dBA Leq for medium-duty trucks and 67 dBA Leq for semi-trailer trucks at 50 feet (Home Depot analysis, Torrance, CA, Giroux & Assoc., 1998). Back-up safety alarms would generate a single event noise level of approximately 79 dBA Leq at 50 feet (per regulations set by OSHA).

The existing sensitive receptors are located a minimum of 365 feet from the southern loading docks and 480 feet from the western loading docks. The southern loading docks (along Heacock Street) will be shielded by a 12-foot-tall block screen (“wing”) wall. Installation of the 12-foot block walls to screen the loading docks is incorporated into the project design as PDF AES-1. The 12-foot block wall would cause a noise transmission loss of 12 dBA. For single-dock operation, noise generated by semi-trailers would be attenuated by distance (-17 dBA over 365 feet) and the block wall (-12 dBA). This results in an increase of less than 0.1 dBA to the ambient noise level of 66.9 dBA. The residual noise level at the nearest residence from operation of a single dock located on the southern side of the building would therefore continue to be 66.9 dBA. Noise levels from operation of a single dock on the western side of the building would be slightly lower due to the greater distance from the receptor; the residual noise level would continue to be 66.9 dBA, or effectively unchanged from the current condition.

Using the same method, residual noise levels were calculated for 9 docks operating simultaneously. For logistical reasons, it would not be feasible to have concurrent loading/unloading at more than 9 docks. After considering attenuation for distance and the block wall, 9 semi-trucks using the loading docks concurrently, including all four of the docks on the southern side of the building, would generate an increment of 0.1 dBA at the nearest residence; the residual noise level would be 67 dBA. If all 9 trucks are located at the western docks, the residual noise level would be 45 dBA. In the case of the 9 semi-trucks using the western loading docks concurrently, the project would generate an increment of less than 0.1 dBA at the nearest residence; the residual noise level would be unchanged from the ambient level of 66.9 dBA.

Thus, with operation of the loading docks ambient noise at the closest receiver would increase by up to 0.1 dBA, which is less than the 3 dBA threshold. Warehouse noise on the Project Site would be short term and intermittent. However, the primary noise source at the nearest homes will be steady traffic on Heacock Street, and would mask virtually all of the onsite noise from warehouse activities. No significant warehouse noise is projected for the Proposed Project. Therefore, impacts would continue to be less than significant with implementation of the Proposed Project, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Stationary Equipment Noise

Once the Proposed Project is operational, noise levels generated at the Project Site would mainly occur from new stationary equipment such as heating, ventilation, and air conditioning (HVAC) units that would be installed on the new building. Although the operation of this equipment would generate noise, the design of these onsite HVAC units and exhaust fans would be required to comply with the regulations of the City’s stationary noise source standards.

The Noise Ordinance included in the City of Moreno Valley Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts from operations at private properties. Section 11.80.030 (C.),

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Nonimpulsive Sound Decibel Limits states the following: No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category in Table 11.80.030-2 when measured at a distance of 200 feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. Table 11.80.030-02, Maximum Sound Levels (in dBA) For Source Land Uses, shows that the daytime and nighttime standards for commercial uses the levels are 65 dBA and 60 dBA, respectively.

Onsite equipment would be required through the plan check process to be designed and/or installed such that it would be sited or shielded to limit noise levels that could affect nearby uses (pursuant to the Municipal Code regulations). Therefore, potential impacts related to stationary equipment noise sources would be less than significant, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

b) Expose persons to, or generate, excessive groundborne vibration or groundborne noise levels?

Adopted ND Summary of Impacts

The Adopted ND stated that development of the Project Site would not expose people to or generate excessive groundborne vibration or groundborne noise levels. No significant impacts were identified.

Impacts Associated with the Proposed Project

No New Impact – Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors (FTA 2006).

Groundborne Vibration

Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors (FTA 2006).

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. A vibration descriptor commonly used to determine structural

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damage and human annoyance is the peak particle velocity (ppv), which is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of such vibration is as follows in Table N-2:

Table N-2 - Human Response to Vibration

Average Human Response	ppv (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

According to Caltrans, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures from intermittent construction or maintenance activities for residential buildings in good repair with gypsum board walls to be 0.4–0.5 in/sec. Table N-3 provides the predicted vibration levels generated by construction equipment.

**Table N-3
Estimated Vibration Levels from Construction Equipment**

Equipment	PPV at 25 ft (in/sec)	PPV at 33 ft (in/sec)	PPV at 50 ft (in/sec)	PPV at 75 ft (in/sec)	PPV at 100 ft (in/sec)
Large Bulldozer	0.089	0.059	0.031	0.017	0.011
Loaded trucks	0.076	0.050	0.027	0.015	0.010
Jackhammer	0.035	0.023	0.012	0.007	0.004
Small Bulldozer	0.003	0.002	0.001	<0.001	<0.000

Source: FHWA Transit Noise and Vibration Impact Assessment

The closest sensitive use to the Project boundary is the residential uses across Heacock Street, with structures at least 250 feet away. The nearest occupied building to the Project Site is a large warehouse and distribution center, approximately 75 feet to the north from the limits of grading. Table N-3 shows that at 75 feet from construction, vibration levels generated would be below levels that could create structural damage in fragile buildings (i.e., 0.4 in/sec), and below the barely perceptible level for human response. Therefore, vibration impacts would be less than significant and there would be no new impacts as a result of the Proposed Project. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Source:

Municipal Code Section 11.80

Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

- c) **Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

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Adopted ND Summary of Impacts

The analysis in the Adopted ND concluded that impacts related to permanent increase in ambient noise levels were considered less than significant without mitigation.

Summary of Impacts with the Proposed Project

No New Impact – As discussed above, the additional trips generated by the project would be 356 daily trips, including 38 AM peak hour trips and 41 PM peak hour trips. The AM and PM peak hour trips would consist of 26 car trips and 15 truck trips. The limited number of additional trips would not result in a noise level increase of 3 dBA. This increase in traffic resulting from implementation of the Proposed Project would result in a limited increase the ambient noise levels in proximity to the project area, which would not be significant, and the Proposed Project would not result in any new impacts related to a substantial permanent increase in ambient noise. Therefore, the Proposed Project would not result in any new or more severe impacts compared to the Adopted ND.

- e) **Expose people residing or working in the project area, where the project is located within an airport land use plan, to excessive noise levels?**
- f) **Expose people residing or working in the project area, where the project is located within the vicinity of a private airstrip, to excessive noise levels?**

Adopted ND Summary of Impacts

The site is approximately a half-mile north of the March Air Reserve Base but is not located in the 65 dBA CNEL level area for the base. As such, the 2005 Initial Study determined that any impact related to excessive noise levels related to airports would be less than significant.

Impacts Associated with the Proposed Project

No New Impact – The project site is located across the street and to the east of March Air Reserve Base. The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site as being outside 60 dBA CNEL range from aircraft noise. An industrial use is not sensitive to noise (and considering typical anticipated building construction noise attenuation of approximately 20 dBA); therefore, the manufacturing and warehouse area would not require special measures to mitigate aircraft-generated noise. Impacts would remain less than significant.

There are no other private airfields or airstrips in the vicinity of the Project Site. In addition, a private airstrip is not proposed as part of the project. Therefore, the Proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip or helipad; no impacts would result from excessive noise generated by a private airstrip. There would be no new impacts.

Sources: March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (2014)
Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

The following PDF is incorporated into the project by the applicant, and would reduce impacts related to noise. This action would be included in the project's conditions of approval:

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AES-1 [Load Dock Screen Walls]. 12-foot high block screen (“wing”) walls will be constructed along the loading dock areas along Heacock Street.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to noise. These actions would be included in the project’s mitigation monitoring and reporting program:

PPP-1: Construction Hours

(Refer to Section 1 for the text of this PPP)

Mitigation Measures

No new impacts nor substantially more severe noise related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for noise.

Conclusion for Noise

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding noise. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
13. POPULATION AND HOUSING				
Would the project:				
a) Induce substantial population growth in an area, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Induce substantial population growth in an area, either directly or indirectly?**

Adopted ND Summary of Impacts

The City determined that that development of the Project Site would not induce substantial population growth and there would be no impacts.

Impacts Associated with the Proposed Project

No New Impact – Construction of new housing is not a component of the Proposed Project. As such, the Proposed Project will not directly contribute to population growth through creation of additional housing. Employment generated from Project development may incidentally contribute to population growth; however, this growth is not anticipated to be significant. Job opportunities likely arising from the Project are relatively common throughout Southern California and are not likely to generate any population migration. Any Project-related employment demands would likely be filled by the existing personnel pool within the City of Moreno Valley and/or neighboring communities. In this regard, any increase in employment opportunities resulting from the Project would tend to improve the existing employment/housing imbalance within the City and County of Riverside as a whole.

The Proposed Project would develop the subject property in accordance with the Industrial/Business Park land uses designation applied to the site by the City of Moreno Valley General Plan. Accordingly, the project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR and the 2005 ND. The Project’s potential to noticeably alter the location, distribution, density, or growth rate of City or regional populations remains less than significant.

Source:

Moreno Valley General Plan (Land Use Element).

Attachment: Addendum - Initial Study Checklist (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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Would the project:

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

Adopted ND Summary of Impacts

The Project Site is vacant and development of the project would not displace a significant number of homes to necessitate any replacement housing elsewhere. The Adopted ND also determined that development of the Project Site would not displace any people, and would not necessitate construction of replacement housing elsewhere. Therefore, the Adopted ND determined that there would be no significant impact.

Impacts Associated with the Proposed Project

No New Impact –The property contains no residential structures and there would be no need to construct replacement housing. There is no impact associated with the displacement of substantial numbers of existing housing or substantial numbers of people. Impacts would not occur and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to population and housing impacts.

Mitigation Measures

No new impacts nor substantially more severe population and housing related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for population and housing.

Conclusion for Population and Housing

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding population and housing. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
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14. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Other public services/facilities?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:**

Fire protection?

Adopted ND Summary of Impacts

The Adopted ND determined development of the Project Site would have an incremental impact on the demand for fire services. Impacts were mitigated through the payment of the impact fees, and were considered less than significant.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would be primarily served by the College Park Fire Station (Station No. 91), an existing station located approximately 2.7 roadway miles southeast of the proposed Project site. The Project Site also could be served by the Kennedy Park Fire Station (Station No. 65), an existing station located approximately 0.86 roadway miles southeast of the Proposed Project.

The Proposed Project would be required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access to the Project area. The Proposed Project would not substantially impact

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service ratios, response times, or other performance objectives related to fire protection. However, during construction, some public services including fire protection may be required; these would be short-term requirements and would not require increases in the level of public service offered or affect the agency's response time.

The increase in people onsite is limited, and would not increase demands such that provision of a new or physically altered fire station would be required that could cause environmental impacts. Furthermore, the Proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the Development Impact Fee Ordinance would be required prior to the issuance of building permits.

Based on the foregoing, the Proposed Project would receive adequate fire protection service, and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities are therefore evaluated to remain less than significant and no further analysis of this issue area is warranted.

Police protection?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would have an incremental impact on the demand for police services. Payment of City of Moreno Valley's development impact fees mitigated impacts to a less than significant level.

Impacts Associated with the Proposed Project

No New Impact – The Project Site is served by Moreno Valley Police Department, located one mile west of the Project Site at 22850 Calle San Juan De Los Lagos, Moreno Valley, CA 92553. The Proposed Project would construct a 99,978 SF building on a vacant lot. This would result in an incremental increase in demand for police protection services, but is not anticipated to require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant shall comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police facilities. Therefore, the Proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts would remain less than significant. Thus, substantial adverse physical impacts associated with the provision of new or expanded facilities would not occur, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Schools?

Adopted ND Summary of Impacts

The approved ND determined that the adopted project would not require a physical alteration of existing school facilities or result in the construction of new facilities. The Project Site is located within the Moreno Valley Unified School District, and would be required to comply with School Mitigation Impact fees, and impacts would be less than significant.

Impacts Associated with the Proposed Project

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No New Impact – The Proposed Project would construct a new 99,978 SF warehouse facility and would not create a direct demand for public school services, as the project would not generate any school-aged children requiring public education. The addition of new employees on the Project Site would assist in the achievement of the City’s goal to provide a better jobs/housing balance within the City and the larger western Riverside County region. Thus, the Proposed Project is not expected to draw new residents to the region and would therefore not indirectly generate additional school-aged students requiring public education. Because the Proposed Project would not directly generate students and is not expected to indirectly draw students to the area, the Project would not result in the need to construct new or physically altered public school facilities.

Although the project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Moreno Valley Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Project-related impacts to public schools are evaluated to remain as less than significant. Overall, there would be no impacts related to schools from implementation of the Proposed Project and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Parks?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. There were no impacts.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project proposes distribution warehouse uses, and would not result in any substantial increase in resident population that would cause or result in additional demands for neighborhood or regional parks or other recreational facilities. Long-term operation of the proposed warehouse facility would place no demand on parks because it would not involve the construction of housing and would not involve the introduction of a temporary or permanent human population into this area. There would be no new impact on parks.

Other public services/facilities?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would not include an increase in the permanent or temporary population that require the construction or expansion of public services or facilities which might have an adverse physical effect on the environment. There were no impacts.

Impacts Associated with the Proposed Project

No New Impact – The proposed project would not result in an increased resident population or a significant increase in the local workforce. Based on these factors, the proposed project would not result in any new long-term impacts to other public facilities such as libraries or health services. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

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Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to public services.

Mitigation Measures

No new impacts nor substantially more severe public services related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for public services.

Conclusion for Public Services

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding public services. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
15. RECREATION				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would be accelerated?**
- b) **Require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Adopted ND Summary of Impacts

The Adopted ND described that the industrial facilities would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The Adopted ND also determined that there would be no impacts related to construction of recreational facilities.

Impacts Associated with the Proposed Project:

No New Impact – Consistent with the Adopted ND, the Proposed Project would develop industrial warehouse uses, and the Proposed Project does not include development of recreational facilities. In addition, as described previously, the Proposed Project is not anticipated to result in an influx of new residents, as the employees needed to operate the Proposed Project are anticipated to come from the unemployed labor force in the region. The Proposed Project also would not generate a substantial population that would generate significant use of existing neighborhood or regional parks and recreation facilities, such that substantial physical deterioration would occur or be accelerated. Thus, the Proposed Project would not generate a substantial population that would require construction or expansion of recreational facilities. Impacts would be less than significant, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to recreational facilities.

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Mitigation Measures

No new impacts nor substantially more severe recreation related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for recreation.

Conclusion for Recreation

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding recreation. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
16. TRANSPORTATION/TRAFFIC				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

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Explanation of Checklist Responses

Threshold of Significance

Based on the City of Moreno Valley Traffic Impact Analysis (TIA) Preparation Guide, a significant direct traffic impact under CEQA occurs when the addition of project traffic causes an intersection that operates at an acceptable level of service (i.e., typically LOS "D" or better) to fall to an unacceptable level of service (i.e., typically LOS "E" or "F"). For purposes of determining the significance of impacts in this subsection:

- If an intersection is projected to operate at an acceptable level of service without the project and the addition of project traffic as measured by 100 or more peak hour trips is expected to cause the intersection to operate at an unacceptable level of service the impact is considered a significant direct impact.
 - If an intersection is projected to operate at an unacceptable level of service without the project, and the project contributes 100 or more peak hour trips, the impact is considered a significant direct impact.
 - A significant cumulative impact is identified when a roadway segment or intersection is projected to operate at an unacceptable LOS with the addition of future traffic and a project-related traffic increase of 50 or more peak hour trips. Cumulative traffic impacts are created as a result of a combination of the proposed project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the project. The project's contribution to a cumulatively significant impact can be reduced to less-than-significant if the project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.
- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**
- b) **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Adopted ND Summary of Impacts

A traffic study was performed in order to effectively measure projected trip generations for the CBP project. The Moreno Valley Transportation Engineering staff reviewed the CBP traffic impact analysis and supplements dated December 22, 2004. The Proposed Project Site (Building 7) as assumed to have 82,994 SF of development potential. The overall CPB project was proposed to generate approximately 20,709 daily trips, 2,733 vehicles trips during the morning peak hour and 2,912 vehicles trips during the evening peak hour. The study recommended improvements along a number of nearby streets and rights of way in order to effectively serve the increased daily trips. With the recommended improvements included it was determined that the CBP project would

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have a less than significant impact on applicable traffic plans.

Impacts Associated with the Proposed Project

No New Impact – A Trip Generation Analysis was prepared for the Proposed Project (Transpo Group, October 2016). See Appendix I, herein.

The Proposed Project proposes to develop a single story 99,978 SF warehouse facility on the currently undeveloped Building #7 site of the CBP. This would represent a 16,984 SF increase in what was previously approved for the Project Site.

The project trip generation was prepared using trip rates from the Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition (2012). Because the Proposed Project would generate truck trips, the passenger car equivalent (PCE) trip generation of the project was calculated. PCE factors account for the fact that large vehicles, such as trucks, utilize more roadway capacity than passenger cars due to their larger size, slower acceleration and reduced maneuverability. Truck percentages were taken from the Fontana Truck Trip Generation Study² and PCE factors are referenced from the San Bernardino Associated Governments Congestion Management Program.³ Table T-1 presents the trip generation estimate for the Proposed Project.

As shown in Table T-1, the Project is forecast to generate 452 daily PCE trips including 38 PCE trips during the AM peak hour and 41 PCE trips during the PM peak hour. According to Exhibit A of the *City of Moreno Valley Traffic Impact Analysis Preparation Guide*, projects that generate fewer than 100 vehicle trips during the peak hours are generally exempt from the requirement to prepare a traffic impact analysis. The Proposed Project would generate fewer than 100 peak hour PCE trips and would therefore be exempt from the requirement to prepare a TIA.

Based on trip rates from ITE Trip Generation, 9th Edition (2012), the Project Site's 82,994 SF would generate 376 daily PCE trips including 32 PCE trips during the AM peak hour and 34 PCE trips during the PM peak hour. The Proposed Project would generate 76 additional daily PCE trips, 4 additional PCE trips during the AM peak hour and 7 PCE trips during the PM peak hour.

Further, truck and vehicle generated by the Project Site would utilize the two driveways on Brodiaea Avenue and would head west toward I-215 and away from the residential neighborhoods to the east. There are no driveways on Heacock Street due to the Heacock Channel. In addition, Heacock Street is not an authorized truck route. Therefore, the Proposed Project would not result in new significant impacts compared to existing conditions, and compared to those described in the Adopted ND. Impacts would remain less than significant.

² Truck Trip Generation Study, City of Fontana, August 2003.

³ San Bernardino County Congestion Management Program, San Bernardino Associated Governments, 2016.

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Table T-1 Proposed Project PCE Trip Generation

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<u>Trip Rates</u>								
Warehouse ¹	TSF	3.560	0.237	0.063	0.300	0.080	0.240	0.320
<u>Total Vehicle Trip Generation</u>								
Warehouse	99.978 TSF	356	24	6	30	8	24	32
<u>Vehicle Mix²</u>								
	<u>Percent</u>							
Passenger Vehicles	80.30%	286	19	5	24	6	19	26
2-Axle Trucks	5.20%	19	1	0	2	0	1	2
3-Axle Trucks	4.50%	16	1	0	1	0	1	1
4+-Axle Trucks	10.00%	36	2	1	3	1	2	3
	100%	356	24	6	30	8	24	32
<u>PCE Trip Generation</u>								
	<u>PCE Factor</u>							
Passenger Vehicles	1.0	286	19	5	24	6	19	26
2-Axle Trucks	1.5	28	2	0	2	1	2	2
3-Axle Trucks	2.0	32	2	1	3	1	2	3
4+-Axle Trucks	3.0	107	7	2	9	2	7	10
Total PCE Trip Generation		452	30	8	38	10	30	41

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 9th Edition*, 2012. Land Use Code 150 - Warehousing.

² Vehicle Mix from the City of Fontana, *Truck Trip Generation Study*, August 2003. Classification: Light Warehouse.

³ Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, *Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County*, 2016.

Source:

Moreno Valley General Plan (2006)

Appendix I. Trip Generation Analysis (Transpo Group, 2016).

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c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site did not propose any design issues that would cause a change in air traffic patterns; no impacts were identified.

Impacts Associated with the Proposed Project

No New Impact – On January 5, 2017 the Airport Land Use Commission (ALUC) determined that the Proposed Project, with a height of 40-feet, is consistent with 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (ALUP). The Project Site is located within Airport Compatibility Zone E, where nonresidential intensity is not restricted. See discussion in Sections 8 (Hazards and Hazardous Materials) and 10 (Land Use and Planning). The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

Source: Appendix F. Riverside County Airport Land Use Commission Development Review – Director’s Determination

d) Substantially increase hazards due to a design feature or incompatible uses?

Adopted ND Summary of Impacts

The Adopted ND determined that development of Project Site would not substantially increase hazards due to a design feature or cause an effect upon a need for new or altered maintenance of roads. The Adopted ND determined that the project would not result in impacts.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project includes industrial warehousing uses, similar to those analyzed in the Adopted ND. There are no proposed uses that would be incompatible. The Proposed Project would also not increase any hazards related to a design feature. Operation of the Proposed Project would utilize the parking locations on the Project Site. Trucks and passenger vehicles would only enter and exit the Project Site using Brodiaea Avenue via two driveways that has been designed to accommodate trucks. The onsite circulation design prepared for the Proposed Project provides fire truck accessibility and turning ability throughout the Project Site. Thus, impacts related to vehicular circulation design features from the Proposed Project would also be less than significant. Therefore, related to increased hazards, no new impact would occur and no mitigation measures would be required. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

e) Result in inadequate emergency access?

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would not directly impact emergency access and that significant impacts would not occur.

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Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would provide emergency access from three access points; two driveways accessible from Brodiaea Avenue, and one emergency only access at the northeast corner of site, providing emergency access between the building and Heacock Channel. Driveways and interior lanes would meet the current fire code to be a minimum of 24-feet. Therefore, the Project Site would readily accessible for emergency access. Related to emergency access, no impact would occur and no mitigation measures would be required. The Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would not conflict with adopted policies, plans or programs regarding public transit, bikeways or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities; and that project would not result in a significant impact.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project would not conflict with adopted policies or programs supporting alternative transportation, including bicycle use and transit facilities. The frontages along Heacock Street and Brodiaea Avenue are existing and are constructed to the City's standards. The Proposed Project is adjacent to an existing bike and pedestrian path, located between the Project Site and the Heacock Channel. Therefore, related to conflicts with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, of other decrease the performance or safety of such facilities, no new impact would occur and no mitigation measures would be required.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to Transportation and Traffic.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to transportation and traffic:

PPP-10: Airport Land Use Commission Consistency Conditions
(Refer to Section 10 (Land Use and Planning) for the text of this PPP)

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Mitigation Measures

No new impacts nor substantially more severe transportation and traffic related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for transportation and traffic.

Conclusion for Transportation and Traffic

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding transportation and traffic. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
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17. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site does not include any historical resources, and impacts related to historic resources would not occur.

Impacts Associated with the Proposed Project

No New Impact: As described above, the Proposed Project site is vacant, undeveloped, and rough graded. The site does not include any historic resources; a cultural resources assessment

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was prepared with a literature review and records search related to potential site-specific tribal cultural resources and a Sacred Lands search request obtained from the Native American Heritage Commission (NAHC). No cultural or tribal resources were identified. Implementation of the Proposed Project would not result in impacts to any historical resources.

Source: Material Culture Consulting (2017).

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.?**

Adopted ND Summary of Impacts

The Adopted ND determined that the Project Site does not include any cultural resources, and impacts would not occur.

Impacts Associated with the Proposed Project

No New Impact.

See discussion in Section 5, *Cultural Resources* above. Like the Adopted ND, past and on-going disturbance by human activities, and existing development of the Project Site and surrounding areas indicates that whatever resources may have been previously present, have likely since been disturbed and/or removed. No historic structures, archaeological resources, or paleontological resources are known to occur within the Project site, nor would any offsite resources be affected by the Proposed Project. Tribal consultation is not applicable to CEQA Addendums. Like the Adopted ND, the Proposed Project is subject to State Health and Safety Code Section 7050.5, and in the unlikely event that human remains were discovered during ground disturbing activities, requirements pursuant this regulation would ensure there are no significant impacts. If the Coroner recognizes the remains to be Native American, he or she shall contact the NAHC within 24 hours. The NAHC would make a determination as to the Most Likely Descendent.

The measures outlined in State law are standard conditions of development, Compliance with PPP-8 *Undiscovered Cultural Resources and Human Remains* would ensure that potential impacts to human remains would remain less than significant. Therefore, as with the Adopted ND, there are no significant impacts related to disturbance to tribal cultural resources on the Project Site, especially given that the site has been significantly graded and no resources were discovered. Therefore, no new impacts would result from development of the Project Site.

Mitigation Measures

No new impacts nor substantially more severe tribal cultural resources related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for tribal cultural resources.

Conclusion for Tribal and Cultural Resources

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding tribal cultural resources. There have not been 1) changes to the project that require major revisions of the

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previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

PDFs

No PDFs are applicable to Tribal Cultural Resources.

PPPs

The following measures are standard conditions of development and existing plans, programs, or policies (collectively referred to as PPPs) that apply to the proposed project and would help to reduce and avoid potential impacts related to transportation and traffic. These actions would be included in the project's mitigation monitoring and reporting program:

PPP-8 Undiscovered Cultural Resources and Human Remains

(Refer to Section 5, Cultural Resources, for the text of this PPP)

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
18. UTILITIES AND SERVICE SYSTEMS				
Would the project:				
a) Exceed wastewater treatment requirements of the Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities, or expansion of existing facilities, the construction of which could cause adverse environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Exceed the wastewater treatment requirements of the Regional Water Quality Control Board?**

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Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site and project area as a whole, would not exceed the wastewater treatment capacity of the Santa Ana Regional Water Quality Control Board (SARWQCB).

Impacts Associated with the Proposed Project

No New Impact – The Project would connect to existing Eastern Municipal Water District (EMWD) sewer lines for conveyance of wastewater to EMWD’s Moreno Valley Regional Water Reclamation Facility. Wastewater generated by the Project would be typical of warehouse uses, and will not require treatment beyond that provided by existing EMWD facilities. Moreover, the Project will be developed and operated in compliance with the regulations of the City and the standards of the SARWQCB. As such, wastewater treatment demands of the Project can be accommodated within the scope of existing EMWD facilities and would not cause or result in exceedance of wastewater treatment requirements of the SARWQCB. The Proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Proposed Project would have no potential to result in exceedances of the applicable wastewater treatment requirements. Consistent with the Adopted ND, impacts of the Proposed Project there would be no impacts to the SARWQCB.

b) Require or result in the construction of new water or wastewater treatment facilities, or expansion of existing facilities, the construction of which could cause adverse environmental effects?

Adopted ND Summary of Impacts

The Adopted ND described that the project area is currently served by the EMWD. The development of the Project Site would not physically alter existing facilities or result in the construction of new or physically altered facilities. Any construction of new facilities required by the cumulative effects of the CBP project and surrounding projects would have to meet all applicable environmental standards.

Impacts Associated with the Proposed Project

No New Impact – Water supply and wastewater treatment are provided to the Project Site the EMWD. The industrial warehouse uses proposed by the Proposed Project are not considered water or wastewater intensive. The Proposed Project would be required to pay water and sewer connection fees established by EMWD to support the maintenance and planned improvement of existing infrastructure. The Proposed Project is an infill project and water lines currently exist in the adjacent roadway. Project improvements would include the construction and/or realignment of service lines necessary to connect the Proposed Project to the existing water distribution and sewer lines. This construction would occur on the Project Site, or within dedicated public easements/right of way and would not result in or cause significant environmental effects. The necessary installation of the onsite water supply line is consistent with that of the Adopted ND, and is included as part of the Proposed Project and would not result in any significant physical environmental effects, as described throughout this Initial Study/Addendum. Therefore, the Proposed Project would not result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Impacts

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would be less than significant, and the Proposed Project would not result in any new or more severe impacts than was described in the Adopted ND.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Adopted ND Summary of Impacts

The Adopted ND determined that buildout of the entire 2.3 million SF CBP project would increase runoff due to increased impervious surfaces. The ND stated that all streets in the area were constructed for 100-year storm event and would be able to adequately convey storm flows without inundating the surrounding properties, including the nearby residential. Impacts were determined to be less than significant without mitigation.

Impacts Associated with the Proposed Project

No New Impact – The Project Site exists within an urban context, and is currently served by stormwater conveyance systems. The Project Site is relatively flat and currently slopes at approximately 1.5 percent. The existing drainage pattern for the site is characterized by sheet flows that follow the approximate slope to the southeast corner of the Project Site. The sheet flow discharges southeasterly towards an existing drop inlet that drains into an open channel (Heacock Channel) that runs along Heacock Street. The Heacock Channel is the backbone system that conveys flows from the tributary area, which then continue to flow southerly alongside Heacock Street.

As a prerequisite for development permits, the Project Applicant is required to prepare and submit a comprehensive Project-specific hydrology study and stormwater management plan, to include plans for any modifications or additions to existing facilities. A Preliminary Drainage Study was prepared by Albert A. Webb Associates (September 2016). The Proposed Project proposes minimal subsurface storm drain systems to convey onsite low flows offsite. Site runoff would discharge into outlet structure, which is sized using the 100-year flow rate. The runoff from outlet structure would discharge into an existing 30" storm drain, then drain into Heacock Channel, which ultimately drains into the Perris Valley Storm Drain.

The preliminary drainage study demonstrates that the proposed onsite subsurface storm drain systems would adequately convey flows to the basin and provide flood protection for the 100-year storm event; the proposed basins would adequately treat onsite flows; and the Proposed Project would not impact flooding conditions to upstream or downstream properties.

As discussed above, the stormwater conveyance facilities necessary to serve the Proposed Project would be constructed onsite or within adjacent rights-of-way. As such, the installation of Proposed Project storm water management systems is not anticipated to independently result in significant environmental impacts. Therefore, the potential for the Proposed Project to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects is considered less than significant.

Source: Preliminary Drainage Study Albert A. Webb Associates (September 2016).

4.0 Environmental Checklist and Analysis

- e) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Adopted ND Summary of Impacts

The Adopted ND determined that wastewater from buildout of the entire 2.3 million SF Centerpointe project would be adequately served by existing EMWD wastewater treatment facilities and that EMWD would have adequate capacity to serve the Project Site in addition to existing commitments. No significant impacts were identified and no mitigation measures were necessary.

Impacts Associated with the Proposed Project

No New Impact – See discussion in Section 17a above. EMWD would provide wastewater treatment services for the Project Site through the Moreno Valley Regional Water Reclamation Facility. Although this treatment facility has typical daily flows of approximately 11 million gallons per day (mgd), it has a capacity of 16 mgd, and plans to ultimately expand to accommodate 41 mgd. Similar to the water demand of the Proposed Project, wastewater generation from the site has been accounted for in EMWD's planning efforts because EMWD has anticipated development of 82,994 SF of industrial warehouse uses at the Project Site since the original approval in 2005. EMWD has sufficient wastewater treatment capacity to serve the 99,978 SF warehouse facility proposed by the Proposed Project and would not need to construct water or wastewater treatment facilities, or expand existing facilities. Impacts would remain less than significant.

- d) **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Adopted ND Summary of Impacts

The Adopted ND determined that water supply demands would be adequately served EMWD with implementation of Senate Bill 610. Impacts were considered less than significant without mitigation.

Impacts Associated with the Proposed Project

No New Impact – EMWD manages the domestic water supply and delivery service within its 555-square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's 2015 Urban Water Management Plan, EMWD has four sources of water supply: imported water from the Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater (EMWD, 2016 Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages.

The 2015 Urban Water Management Plan provides demands for projected water use based on regional growth projections and general plan land use designations. The projected water demand for the EMWD are listed in Table U-1.

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Table U-1: Projected Demands and Water Supply

Year	Projected Demand AFY
2020	197,901
2025	218,700
2030	235,800
2035	252,600
2040	268,200

As outlined in the 2015 UWMP, to ensure that planning efforts for future growth are comprehensive, the EMWD incorporates regional projections and land uses in its UWMP. EMWD has anticipated development of 82,994 SF of industrial warehouse uses at the Project Site since the original approval of the development potential in 2005.

The Project Site is currently designated for Business Park/Light Industrial, which allows a 1.0 Floor Area Ratio (FAR). The Proposed Project would result in a 0.34 FAR, which is less than the allowable General Plan Land Use designation criteria, and would be consistent with existing growth projections, and included in the UWMP projections. In addition, the 2015 UWMP identifies water supply and demands through 2040 (as listed in Table U-1) and indicates it would be able to meet all of the anticipated water supply needs. Additionally, the Proposed Project would not be subject to the provisions of Senate Bill 610 (Costa) (California Public Resources Code Section 21151.9 and Water Code Section 10910 et seq.) because it does not involve an “industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 SF of floor area.”

The Proposed Project also would not be subject to the provisions of Senate Bill 221 (Kuehl) (California Government Code Section 66473.7) because it does not involve a subdivision of land or a development agreement. Accordingly, the Proposed Project does not require a Water Supply Assessment pursuant to Senate Bill 610, nor does the project require a Water Supply Verification pursuant to Senate Bill 221. Because sufficient water supplies are available to service the Proposed Project as documented in EMWD’s 2015 Urban Water Management Plan, impacts would remain less than significant. Therefore, like the Adopted ND, the Proposed Project would not require new or expanded water entitlements and would not result in any new or more severe impacts than was described in the Adopted ND.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?**
- g) Comply with federal, state, and local statutes and regulations related to solid waste?**

Adopted ND Summary of Impacts

The Adopted ND determined that development of the Project Site would less than significant

4.0 Environmental Checklist and Analysis

impact on landfill capacity from the generation of solid waste during construction and operation of the overall CBP project. The Adopted ND stated that development would comply with all regulations related to solid waste, and significant impacts would not occur. The Project would have a less than significant impact on landfill capacity from the generation of solid waste during construction and operation and would not physically alter existing facilities or result in the construction of new or physically altered waste disposal facilities. Impacts were considered less than significant.

Impacts Associated with the Proposed Project

No New Impact – Less than significant impacts related to landfill capacity are anticipated from construction and operation of the Proposed Project. The Proposed Project largely consists of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and would not result in long-term solid waste generation. During construction, the Proposed Project would comply with AB 939 requirements and City of Moreno Valley Ordinance No. 706, which requires a minimum of 50 percent of all construction waste and debris to be recycled. The percentage of required recycling at the site may increase with implementation of new standards intended to meet the requirements of AB 341, which targets a 75 percent recycling rate by the year 2020.

Solid wastes associated with the Proposed Project would be disposed of as appropriate in local landfills or at a recycling facility. Solid waste generated by the Proposed Project would be disposed at the El Sobrante Landfill (15 miles from the Project Site), the Badlands Sanitary Landfill (7.5 miles away), and/or the Lamb Canyon Sanitary Landfill (15 miles away). Each of these landfills receive well below their maximum permitted daily disposal volume and have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Proposed Project's construction or operational periods.

The closest landfill to the Project Site is the Badlands Sanitary Landfill, which is permitted to accept 4,800 tons per day of solid waste, and is permitted to operate through 2022 (Calrecycle 2016). El Sobrante Sanitary Landfill is permitted to accept 16,054 tons per day of solid waste, and is permitted to operate through 2044 (Calrecycle 2016). Based on a solid waste generation of 6 pounds per 1,000 square feet per day, identified in the CalRecycle Solid Waste Information System Database, a 139,800 SF industrial building would generate approximately 600 pounds per day, or 3,000 pounds (1.5 tons) of solid waste per week (based on a five-day work week), which would be within the existing permitted capacity of the El Sobrante Sanitary Landfill and the Badlands Sanitary Landfill. Furthermore, the Proposed Project would comply with State regulations related to waste diversion from landfills.

Based on the current recycling requirements, which require diversion of 50 percent of solid waste away from landfills, the Proposed Project would result in 0.75 tons of solid waste per week. In 2020, state regulations per AB 341 will become effective, which will require diversion of 75 percent of solid waste from landfills. Thus, it is anticipated that solid waste landfill disposal from operation of the project in 2020 would be reduced to approximately 0.375 ton per week. Therefore, local landfills have sufficient capacity to accept solid waste generated by the Proposed Project's construction and operational phases.

As discussed in the Moreno Valley General Plan EIR the total amount of additional waste that would be generated under General Plan Buildout conditions would be accommodated within planned landfill expansions, and would not result in significant environmental impacts. The solid waste increment generated by the Proposed Project is reflected in this determination. Therefore,

4.0 Environmental Checklist and Analysis

although the Proposed Project's larger building would generate more solid waste than the analyzed in the Adopted ND, the impacts would remain less than significant and there would be no new impact. The Proposed Project not result in any new significant impacts than anticipated in the Adopted ND.

Project Design Features & Standard Conditions/Existing Plans, Programs, or Policies

No PDFs or PPPs are applicable to utilities and service systems.

Standard Conditions

The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance.

Mitigation Measures

No new impacts nor substantially more severe utilities and service systems related impacts would result from the adoption and implementation of the Proposed Project; therefore, no new or revised mitigation measures are required for utilities and service systems.

Conclusion for Utilities and Service Systems

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding utilities and service systems. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

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	New Potentially Significant Impact	New Mitigation Required	No New Impact/No Impact	Reduced Impact
19. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

Would the project:

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Adopted ND Summary of Impacts

The Adopted ND determined that implementation of the project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

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Impacts Associated with the Proposed Project

No New Impact - As discussed in Section 4, above, the Project could result in significant impacts to nesting bird species. These species are commonly found throughout the region, including in preserved habitat areas and protected open space covering hundreds of thousands of acres. With the implementation of this existing policies, plans and procedures, and City Standard Conditions, as outlined in PPP-4 ,PPP-5 and PPP-6, implementation of the Proposed Project would not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. As discussed in Section 5, Cultural Resources above, the project has no potential to eliminate important examples of the major periods of California history or prehistory as no such examples are present on the site.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Adopted ND Summary of Impacts

The City determined that the project would not have impacts which are individually limited, but cumulatively considerable.

Impacts Associated with the Proposed Project

No New Impact – Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

- (a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.
- (b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

The Project consists of development of an undeveloped parcel within an urban area that is near I-215. The Proposed Project would provide industrial warehousing uses, which would be consistent with the Adopted ND and the approved land uses and zoning for the Project Site. As described above, all of the potential impacts related to implementation of the Proposed Project would be less than significant with implementation of project description features and Standard Conditions of Approval that are imposed by the City of Moreno Valley. Furthermore, in 2012, the western portion of the CBP (west of Graham) proceeded with a project that changed the 2005 plans of Buildings #1, 2, 3, and 4 (2012 Project). The 2012 Project combined Buildings #1, 2, and 3 into a single 601,810 SF warehouse facility. The 2012 Project also included the renovation and adding of an additional 501,430 SF to Building #4. Building Site #7 was not explicitly included in

4.0 Environmental Checklist and Analysis

the 2012 Project; however, Building Site #7 was included in the 2012 Project's cumulative impact analysis.

The Proposed Project would develop an area that has been previously graded and disturbed. Thus, impacts to environmental resources or issue areas would not be cumulatively considerable; and like the Adopted ND, cumulative impacts related to the Proposed Project would be less than significant. Overall, the Proposed Project would not result in any new or greater cumulative impacts than anticipated in the Adopted ND.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Adopted ND Summary of Impacts

The Adopted ND determined that the project would not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

Impacts Associated with the Proposed Project

No New Impact – The Proposed Project proposes the construction and operation of an industrial warehouse building. The Project would not consist of any use or any activities that would result in a substantial negative affect on persons in the vicinity. All resource topics associated with the Proposed Project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts or less-than-significant impacts with implementation of the project design features and standard development conditions that are required by the City. Consequently, the Proposed Project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly. Furthermore, the Proposed Project would not result in any new or greater impacts than anticipated in the Adopted ND.

Project Design Features & Existing Plans, Programs, or Policies

Refer to PDFs and PPPs from Sections: 1 (Aesthetics), 3 (Air Quality), 4 (Biological Resources), 5 (Cultural Resources), 6 (Geology and Soils), 7 (Hazards and Hazardous Materials), 9 (Hydrology and Water Quality, 10 (Land Use and Planning), 12 (Noise), 14 (Public Services), Item 16 (Transportation and Traffic), and Item 18 (Utilities and Service Systems). These PDFs and PPPs are applicant-initiated actions or existing plans, programs, or policies which effectively reduce potential environmental impacts.

Mitigation Measures

No mitigation measures are required because no significant impacts have been identified.

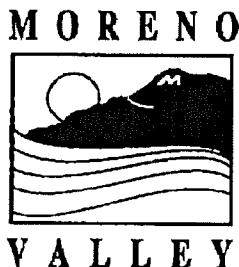
Conclusion for Mandatory Findings of Significance

Based on the foregoing, none of the conditions identified in CEQA Guidelines Section 15162 that would trigger the need to prepare a subsequent or supplemental ND or other environmental document to evaluate project impacts or mitigation measures exist regarding the CEQA Checklist's Mandatory Findings of Significance. There have not been 1) changes to the project that require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; 2) substantial changes with respect to the circumstances under which the project is undertaken that

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require major revisions of the previous adopted ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or 3) the availability of new information of substantial importance relating to significant effects or mitigation measures or alternatives that were not known and could not have been known when the adopted ND was adopted as completed.

Initial Study
for PM 32326



ENVIRONMENTAL CHECKLIST FORM
(REVISED)
CITY OF MORENO VALLEY

Project Title: PA04-0063 (Tentative Parcel Map), PA04-0064 through PA04-0068 (5 plot plans, including a future plot plan), and PA04-0139 through PA04-0142 (4 plot plans)

1. Lead Agency Name and Address:
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553
2. Contact Person and Phone Number: Mark Gross, Associate Planner (951) 413-3215
3. Project Location: North of Cactus Avenue, east of Frederick Street, west of Heacock Street and south of Alessandro in the Moreno Valley.
4. Project Sponsor's Name and Address: Ridge Property Trust
201 Covina Avenue, Ste. 8
Long Beach, CA 90803
5. General Plan Designation: BP (Business Park) and BPX (Business Park- Mixed Use) land use districts.
6. Zoning: BP (Business Park) and BPX (Business Park- Mixed Use) land use districts.
7. Description of the Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. (Attach additional sheets if necessary)

The project includes nine (9) parcels, including eight(8) proposed and one (1) future industrial buildings ranging from 80,620 square feet to 779,016 square feet (total of 2,312,136 sq ft.) and two drainage detention basins on 126 acres of land in the BP (Business Park)/BPX (Business Park- Mixed Use) land use districts.

The proposed uses are considered permitted within the BP and BPX land use districts, except a manufacturing use with heavy truck traffic or outdoor storage which would require a Conditional Use Permit (CUP) if within 300 feet of residential (Parcel No. 7). The proposed project lies within the former Centerpointe Specific Plan, which was recently repealed, with regulations provided within the Municipal Code. With the inclusion of specific conditions of approval, the project will be reduced to a less than significant environmental impact for all levels.

Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

The project is surrounded by vacant Business Park land and City Hall across Frederick Street, the March Air Reserve Base to the south, residential across the flood control channel along Heacock Street to the east and vacant Business Park and commercial on the south side of Alessandro Boulevard. In addition, the Serta Mattress warehouse building is located on a parcel that is adjacent to the proposed project site.

Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement). None.

* All related studies referenced or documented within this Initial Study are on file for review with the City of Moreno Valley at 14177 Frederick Street , Moreno Valley California, 92552-0805 or by calling the Planning Division at (951) 413-3206.

confidential
Angela Kane
ProLogis
Mar 15, 2015 13:30

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below (■) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Hazards & Hazardous Materials		Public Services
	Agricultural Resources		Hydrology/Water Quality		Recreation
	Air Quality		Land Use/Planning		Transportation/Traffic
	Biological Resources		Mineral Resources		Utilities/Service Systems
	Cultural Resources		Noise		Mandatory Findings of Significance
	Geology/Soils		Population/Housing		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	✓
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION , including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Mark Gross
Signature

6/30/05
*Date

Mark Gross
Printed Name

John Terrell, Planning Official
For

*The Initial Study has been revised from the 5/18/05 signed copy.

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).
- 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:
 - (a) Earlier Analysis Used. Identify and state where they are available for review.
 - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?			4	
The site is located within a relatively flat area. Since the project is proposed in an area where limited development has taken place over the years, there could be some effects on scenery in the area. However, this effect is considered a less than significant effect or impact on existing scenery in the area.				
b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			4	
A site visit in October 2004 indicated that little or no vegetation existed on the site, while there was no rock outcroppings or historic buildings evident. There is no state scenic highways in the vicinity of the site. The project site has been disked over the years for weed control.				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			4	
The site is currently vacant and is surrounded by vacant and or underutilized business park properties. Surrounding land uses include vacant Business Park land and the Moreno Valley City Hall complex across Frederick Street, the March Air Reserve Base and an expanding March Credit Union office site to the south, single-family residential uses across Heacock Street to the east and vacant Business Park along with various commercial properties on the south side of Alessandro Boulevard. In addition, the Serta Mattress warehouse building is located on a parcel that is adjacent to the proposed project site.				
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			4	
As the site is currently vacant, the proposed industrial project could create additional light or glare. Development Code requirements, including the shielding and restricting of lighting, will mitigate light and glare impacts on surrounding properties.				
2. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project?				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?			4	
The site is not designated as prime farmland on current maps.				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			4	
There is no existing surrounding agricultural use, or sites under Williamson Act contract at this site.				
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			4	
Although some of the area has been used for agricultural production in the past, there is no immediate agricultural use in the general vicinity. Non-agricultural uses currently surround the site.				
3. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			4	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.			4	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			4	

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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(a. through c.) The site is located within the jurisdiction of the South Coast Air Quality Management District. The industrial distribution center is not anticipated to obstruct implementation of the South Coast Air Quality Management Plan.

It is expected that the proposed industrial project would comply with the latest air quality plan. The current applicable air quality plan is the 1997 Air Quality Management Plan (AQMP) adopted November 1996. The intent of the Plan is to reduce emissions in the region through a variety of measures with petroleum operations, combustion sources, and fugitive dust. All construction related development and grading would have to comply with the current AQMP and related AQMP Rules related to fugitive dust.

The industrial complex has been planned and revised to provide the least amount of impact to any surrounding land uses. Based upon measurements on the proposed site plan, the closest loading dock area from the seven buildings currently proposed would be approximately 1,000 feet (roughly 956 feet) from any residential neighborhood and the closest truck route would be over 1,200 feet from any residential area. The site would not be directly upwind from any existing residential neighborhood as the winds prevail from northwest to southeast. Any future building (within Lot 7) will have restricted truck traffic and use of the building as a distribution warehouse facility.

Based upon the location of the proposed industrial facility, an Air Quality Analysis and Health Risk Assessment, dated February 24, 2005, were completed. Based upon the conclusions of the Health Risk Assessment study, no mitigation was required. The study demonstrates that residential areas in close proximity to the project would not be exposed to diesel particulate matter that exceeds thresholds established by the Southern California Air Quality Management District's (SCAQMD) CEQA Handbook. It is anticipated that residents in the area will not be subject to increased cancer or any other non-cancer risks as a result of the project.

Specific TDM (Transportation Demand Management Measures have been included and suggested within the Air Quality Assessment for Moreno Valley Centerpointe dated June 24, 2004. This includes but is not limited to, providing adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides and providing dedicated turn lanes as appropriate and feasible and provide roadway improvements at heavily congested roadways.

As provided in the prepared Air Quality Analysis for Moreno Valley Centerpointe, specific conditions of approval will be required of the project to reduce regional emissions regarding fugitive dust sources (included as Exhibit 2 and 3 of the prepared Air Quality Assessment). In addition, construction equipment control measures and regional emissions will include the following mitigation or reduction measures (included as conditions of approval for the project):

- Use of low emission mobile construction equipment
- Maintain construction equipment engines by keeping them tuned
- Use of low sulfur fuel for stationary construction equipment (required by SCAQMD Rules 431.1 and 431.2)
- Utilize existing power sources when feasible.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through traffic lanes to the extent feasible
- Schedule construction operations affecting traffic for off-peak hours
- Develop a traffic plan to minimize traffic flow interference from construction activities.

Energy Efficient Measures include:

- Improve thermal integrity of the buildings and reduce thermal load with automated time clocks or occupant sensors
- If feasible, install energy efficient street lighting.
- If applicable, waste heat will be captured and reemployed in nonresidential buildings.
- Landscape with native drought resistant species to reduce water consumption and provide solar benefits.
- Provide lighter color roofing and road materials and if feasible, tree planning programs, to comply with AQMP Miscellaneous Sources MSC-01 measure.
- Synchronize traffic signals where feasible.
- Provide and introduce window glazing, and wall installation and efficient ventilation methods where feasible.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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VOC Measures:

- The use shall require coatings and solvents with a VOC content lower than required under Rule 1113.
- Construct and build with materials that do not require painting were feasible and permissible.
- Use pre-painted construction materials

PM 10 Measures

- Water active sites a minimum of three times a day
- Pave or provide soil stabilizers according to manufactures' specifications for parking areas and construction roads.
- Suspend all excavating and grading operations when wind speeds exceed instantaneous gusts exceeding 25 mph.
- Sweep all streets at least once per day
- Use "clean" street sweepers.
- Replace ground cover in disturbed areas inactive for 15 days or more
- Apply non-toxic soil stabilizers according to manufacture's specifications to all inactive construction areas.
- The applicant shall appoint a construction relation officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM 10 generation.

NOx

- Restrict idling emissions by using auxiliary power units/electrification and prohibit idling in excess of 5 minutes.
- Configure construction parking to minimize traffic interference.
- Provide temporary traffic controls such as a flag person during all phases of construction
- Provide dedicated turn lanes for movement of construction trucks and on and off site equipment if feasible.

In addition and as suggested by the SCAQMD, additional mitigation measures or preventative measures will be required as follows to further abide by criteria within the current air quality plan (included as conditions of approval for the project):

- Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturers' specifications.
- Encourage the use of alternative clean fuel such as compressed natural gas-powered equipment with oxidation catalysis instead of diesel powered engines, or if diesel equipment has to be used, encourage use of particulate filters, oxidation catalysts and low sulfur diesel as defined in AQMD Rule 431.2, i.e., with less than 15 ppm sulfur content. Restrict operation to "clean" trucks.
- Electrify auxiliary power units.
- Trucks hauling dirt, sand, gravel or soil shall be covered or should maintain at least two feet of freeboard in accordance with Section 23114 of the California Vehicle Code.
- Pave parking areas and construction access roads to the main roads to avoid dirt being carried on to the roadway.
- Provide onsite services when feasible to minimize truck traffic in or near residential areas.
- Require or provide incentives to use low-sulfur diesel fuel with particulate traps.
- Promote or recommend the use of alternative-fueled yard tractors or other off-road equipment.
- Conduct air quality monitoring at sensitive receptors.
- Redirect truck route to avoid residential areas or schools.
- Provide electrical sources for service equipment and docking of trucks.
- Provide light-colored roof materials on the building to deflect heat.
- Encourage the installation of solar panels on building roof to supply electricity for air conditioning.
- Encourage the use of double paned windows to reduce thermal loss, and/or provide high performance glass and window coverings at office areas to reduce HVAC loads.
- Install central water heating systems to reduce energy consumption.
- Install energy-efficient appliances to reduce energy consumption.
- Improve traffic flow by signal synchronization.
- Flyers and pamphlets shall be provided to truck drivers of the health effects of diesel particulate and importance of being a good neighbor
- Pave road and road shoulder.
- Require installation of electric hookups to eliminate idling of main and auxiliary engines during loading and unloading.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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- Create a buffer of at least 300 meters (roughly 1,000 feet) between the warehouse distribution center and sensitive receptor.
- Require the warehouse/distribution center to clearly define the primary entrance and exit of the warehouse distribution center.
- Require warehouse/distribution center to establish specific truck routes between the operation and the freeway.
- Restrict overnight parking in residential areas and establish overnight parking within the center where trucks can rest overnight.
- Enforce truck parking restrictions.
- Establish areas within the facility for repair needs.
- The warehouse/distribution center shall operate the cleanest vehicles available.
- Conduct periodic community meetings inviting neighbors, community groups and other organizations and coordinate outreach programs to educate the public on concerns related to the potential for cumulative impacts from a new warehouse/distribution center.
- Post signs outside of the facility and provide phone numbers where neighbors can call if there is a specific issue.
- Provide food options, fueling and truck repair on-site to minimize trucks traversing through the neighborhood.

The City of Moreno Valley, as the lead agency, will insure the implementation of any measures that would assist in reducing any of the criteria pollutants, where applicable and feasible. The proposed mitigation measures have been provided as conditions of approval of the project.

d) Expose sensitive receptors to substantial pollutant concentrations?			4	
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confidential
 Angela Kane
 ProLogis
 Mar 15, 2015 13:30

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The industrial complex has been planned and revised to provide the least amount of impact to any surrounding land uses. Based upon measurements on the proposed site plan, the closest loading dock area from the seven buildings currently proposed would be approximately 300 meters or approximately 1,000 feet (956 feet) from any residential neighborhood and the closest truck route would be over 1,100 feet from any residential area. The site would not be directly upwind from any existing residential neighborhood as the winds prevail from northwest to southeast. Any future building (within Building 7) will greatly restrict truck traffic and use of the building as a distribution warehouse facility.

As SCAQMD had previously reported, the relative concentration of a contaminate such as diesel exhaust will be reduced by 90 percent at a point of 500 meters downwind from the source. Sensitive receptors have been documented within 300 meters of the project site, however the bulk of the distribution facilities and truck related docks are located beyond 500 meters of any sensitive receptor. Diesel trucks will be directed primarily to Cactus Avenue and Alessandro Boulevard, and not Heacock Street.

The industrial complex has been revised and planned to provide the least amount of impact to any surrounding sensitive land uses. Based upon the site plan and the placement of buildings, the closest loading dock area from the seven buildings currently proposed would be set back approximately 1,000 feet (956 feet) from any residential neighborhood and be shielded from any residential use in close proximity. In addition, this area will include the necessary buffer between any sensitive uses such as public right of ways, the Heacock Channel, a large water detention basin and an extensive landscape and parking area. In addition, the closest truck route would be over 1,200 feet from any residential area. As truck access has been directed away from sensitive land uses and individual truck parking stalls have been included for all of the buildings in the areas closest to residential, trucks would not be staging in or traversing along right of ways closest to residential uses. The truck route into this facility is along Cactus Street to the south, which is surrounded by the March Air Reserve Base, and continues down to Interstate 215 to the west, where no sensitive receptors exist along the entire route.

Besides the SCAQMD recommended buffer area, the city is in the process of updating the Municipal Code to restrict more intensive uses from residential areas and impose its own buffer areas between industrial and residential uses. This would affect the closest building to any sensitive receptors, which contains Parcel 7 and a future 82,994 square foot building. Properties situated within the existing Business Park zones and in close proximity to residential are proposed to be modified to reduce the intensity of the industrial uses allowed within the zone. Planning staff has recommended limiting the custom manufacturing and warehouse storage uses to no more than 50,000 square feet, which would allow an adequate buffer from adjacent residential uses and, at the same time, provide the flexibility to design lower impact projects that will meet market demand. Therefore, any future building within Building 7 will greatly restrict truck traffic and could not be used as a distribution warehouse facility.

Based upon the location of the proposed industrial facility, and as included within the Air Quality Management Districts (AQMD) comment letter dated October 28, 2004, an Air Quality Analysis and Health Risk Assessment, dated February 24, 2005, was completed. Based upon the conclusions of the Air Quality Analysis, specific mitigation measures are required and included to lessen impacts to less than significant levels (See previous section). Based upon the conclusions of the Health Risk Assessment study, no mitigation was required from the proposed project. The study demonstrates that residential areas in close proximity to the project would not be exposed to diesel particulate matter where residents are subject to increased cancer or non-cancer risks as a result of the project.

e) Create objectionable odors affecting a substantial number of people?			4	
The proposed project would not create any source of objectionable odors affecting other people. The closest residential properties are located beyond an existing channel, east of Heacock Street. Although there are known sensitive receptors within 300 meters downwind from the source project, mitigation included above will lessen the effects to less than significant levels.				
4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?			4	

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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In general, the overall use of the land in the area has not changed considerably. The site was disturbed based on previous development in the area. There is no sage scrub located in the area. There are no site-specific species that would be expected to occur within the area.

Based on the recent Multi-Species Habitat Conservation Plan (MSHCP) for Riverside County, which the City of Moreno Valley has adopted, a Biological Assessment Study and Burrowing Owl Survey were required. Based on the survey conducted for the site, no Burrowing Owls were evident. Although no species were found at the site, it was determined that a potentially suitable foraging area exists at the site, and an additional survey would be conditioned to be completed prior to the approval of any grading permits for the site.

Based on the existing environmental setting, there is no reason to believe that endangered species could have reoccupied the site. There, however, were no blue line streams or riparian vegetation noted on the site or any USGS Maps reviewed. The site was free from any standing water. Based upon a field review of the site, the property was walked east to west at intervals allowing for the observation of all the ground area of the site. There was no evidence of any burrows on the site that could be associated with wildlife on the site. In addition, there was no indication of other evidence that wildlife might in some way use the property (e.g. no animal tracks or scat could be located on the site.) As conditioned, the proposed project will not result in the potential for impacts to fish and wildlife resources, as the site has been disturbed and no fish and wildlife has been observed. In addition, narrow endemics (threatened or endangered plant species) were not evident on the site. Therefore, the proposed project will not result in the potential for significant impacts to Fish and Wildlife resources.

b) Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Wildlife Service?				4
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Based on a recent site inspection, no major riparian habitat or other sensitive community was found on the site. The site was free from standing water or condensed riparian vegetation that could warrant a habitat area for sensitive or endangered species. It is not anticipated that the proposed development would have a substantially adverse effect on existing land use conditions on the site.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				4
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The site is vacant and appears to have been previously graded. There are no federally protected wetland areas such as a marsh or vernal pool evident at the site. In addition, a riparian area and condensed vegetation to support threatened or endangered species was not evident at the site.

The proposed project will not conflict with any General Plan or local policies pertaining to the protection of biological resources. The project is consistent with the goals and objectives of the General Plan under the current business park or mixed-use business park land use designation, which allows industrial warehouse as a permitted use.

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				4
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e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				4
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(d. and e.) The proposed project will not conflict with any General Plan or local policies pertaining to the protection of biological resources. The project is consistent with the goals and objectives of the General Plan under the current industrial and business park land use designation.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?				4
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The proposed project and Development Code amendment will not conflict with the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) pertaining to the protection of biological resources, the Multi-Species Habitat Conservation Plan (MSHCP) requirements or any other known local, regional or state habitat conservation plans. Riparian vegetation from water sources that could act as potential habitat for threatened or endangered species are not evident at the site. The SKR Habitat plan will require a fee of \$500.00 per acre to be paid by the developer to assist in setting aside established protection areas for said habitat. The proposed project will not conflict with the Riverside County Multi-species plan that was recently adopted. Multi-species mitigation fees will also be in affect and collected prior to building permit approval.

5. CULTURAL RESOURCES. Would the project:

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				4
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				4
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				4
(a. through c.) Based on the review of the Cultural Resources Inventory for the City of Moreno Valley, (October 1987), there are no known archaeological resources on the site. There are no known paleontological or unique geological features on the site.				
d) Disturb any human remains, including those interred outside of formal cemeteries?				4
There is no known location of archaeological resources, or human remains on the site. The standard condition of approval of any future development proposed for the site would be the requirement of work on the project to be terminated in the event that human remains are found on the site				
6. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			4	
The proposed industrial warehouse project would not have a direct impact on creating geologic concerns. The area is currently designated for Industrial and/or Business Park uses. The proposed plan does not increase the exposure of residences that might be exposed to groundshaking, since residences are not proposed as part of the plan. The site is not within an Alquist-Priolo zone, or other designated fault hazard zone.				
(ii) Strong seismic ground shaking?			4	
The nearest fault is the San Jacinto fault system, which lies over 3 miles east of the site. The San Andreas fault system is more than 20 miles from the site. The active Sierra Madre and San Gabriel fault zones lie roughly 35 and 40 miles respectively to the northwest of the site. The active Elsinore and Newport-Inglewood fault zones lie approximately 20 and 45 miles, respectively, to the southwest of the site. This faulting is not considered a significant constraint to development on the site with use of current development codes.				
(iii) Seismic-related ground failure, including liquefaction?			4	
It is anticipated that there will be a low chance of significant impact from surface fault rupture, seismic ground shaking or ground failure.				
(iv) Landslides?				4
There is generally little if any potential for landslides on the site.				
(b) Result in substantial soil erosion or the loss of topsoil?			4	
The future development of the site could result in the reduction of erosion with the placement of industrial buildings, hardscape and landscaping on the site. During construction, there is the potential for less than significant impacts for short-term soil erosion from minimal excavation and grading. This issue will be addressed as part of standard construction of any proposed project, with such measures as watering to reduce dust and sandbagging, if required, during rainy periods.				
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			4	
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?			4	
(c. and d.) The geologic unit or soil is not known to be unstable based on current resources. As stated within the General Plan, geology for the area consists of Pliocene-Pleistocene or Quaternary Alluvium overlying primarily granitic bedrock.				
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			4	
The project shall not impact soils or require the use of septic tanks or alternative wastewater disposal.				
7. HAZARDS AND HAZARDOUS MATERIALS. Would the project?				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			4	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous			4	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			4	
(a. through c) The proposed project, consisting of industrial distribution warehouse facilities, warehousing facilities and other general industrial buildings, will not create a significant hazard to the public or the environment. There will be no known hazardous materials associated with the development of the site.				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?				4
The project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			4	
The project site is not located within an airport land use plan. The parcel of land is located in proximity to the March Air Reserve Base, however the flight pattern is parallel and away from the area of the proposed project.				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				4
There are no private airstrips within the City of Moreno Valley. The site is not within proximity of a private airstrip. Therefore, the proposed project would not result in a safety hazard pertaining to proximity of a private airstrip.				
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?				4
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				4
(g. and h.) The proposed project would not have any direct effect on an adopted emergency response plan, or emergency evacuation plan. The City has an adopted Hazardous Waste Management Plan (January 1991) as part of its General Plan, which addresses emergency response pertaining to hazardous materials. The City's emergency plans are also consistent with the General Plan. The proposed project would not be in conflict in any way with the emergency response or emergency evacuation plans. In addition, the project is not located within a designated wildland area where fires are possible.				
8. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?			4	
b) Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			4	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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(a. and b.)

The project will change the absorption rate of the site with the installation of hardscape; however the project will have a negligible effect on groundwater supply. As with any urban project, runoff entering the storm drainage system would contain minor amounts of pollutants (including pesticides, fertilizers and motor oil). This would incrementally contribute to the degradation of surface and sub-surface water quality. Additionally, grading activities would temporarily expose soils to wind and water erosion that would contribute to downstream sedimentation. The proposed project would comply with all drainage fees, permits and development guidelines associated with urban water runoff and discharge. Additionally, the project has been designed in accordance with the conditions of approval set forth by the City of Moreno Valley. These conditions address activities and practices that are required of projects developed within the City to help minimize the projects effect on the surrounding environs, and specifically in this case, water quality through measures such as dealing with the location and treatment of exposed soils. With the approval of the storm drainage facilities by the City Engineer and Riverside County Flood Control District, as well as complying with all applicable storm water discharge permits, impacts would be less than significant.

The project will include the construction of two major storm drain lines (one in Brodiaea and the other just outside of the northerly Cactus RW) and two major detention basins to detain flows before they go into the Heacock Channel. The storm drains will collect northerly flows up to Alessandro Blvd. and possibly some flows north of Alessandro (need to verify the north of Alessandro flows).

The project will be conditioned to obtain an encroachment permit from RCFC&WCD for any work within their right of way. The proposed Brodiaea bridge over the Heacock Channel will require an encroachment permit. Street Improvements on the west side of Heacock Street and those adjacent to the proposed bike trail may require an encroachment permit.

The Brodiaea bridge construction as well as street intersection modifications at Heacock and Cactus may encroach into the Heacock Channel right of way. However, the Heacock Channel is a concrete lined channel between Alessandro and Cactus and therefore presents nominal impacts relating to MSHCP.

Based on the requirements of SB 610 and SB221, a Water Assessment Study was required to be prepared. The Eastern Municipal Water District (EMWD) has indicated that the necessary water supply is available for the site and that they would be able to service the new project.

c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			4	
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During construction of the project, there is the potential for some sediments to be discharged within the storm water system. Erosion plans are required for projects prior to issuance of grading permits for prevention of substantial erosion. The site is not within the 100-year flood plain. A hydrology study prepared by the applicant and reviewed/approved by Public Work's staff indicated that hydrology and water quality would be impacted to a less than significant level.

d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner, which would result in flooding on- or off site?			4	
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The proposed project site is currently vacant and in a disturbed state. No major rivers or water sources (i.e. blue line streams) exist within the project site. Runoff patterns will not be altered to the result of flooding on or off-site. Therefore, project implementation would not result in modifications that could ultimately result in flooding on or off site. Impacts would be less than significant.

Although comments were provided from the Regional Water Quality Control Board indicating that a small wetland and storm flow was included on the Alessandro side of the project, a site inspection by staff did not determine a wetland with vegetation existing. In addition, there were no comments provided by the Army Corps. of Engineers, Fish and Game or Fish and Wildlife. Therefore, although the letter indicates that a 401 or 404 permit may be required, and a condition has been included that permits may be possible, it is not likely based on the current development proposal and site conditions.

During construction of the proposed tract, there is the potential for some sediment to be discharged within the storm water. Erosion plans are required for projects prior to issuance of grading permits for prevention substantial erosion. The site is not within the 100-year flood plain.

e) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			4	
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f) Otherwise substantially degrade water quality?			4	
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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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(e. and f.)

The project will change the absorption rate of the site with the installation of hardscape; however the proposal will have a negligible effect on groundwater supply. The proposal will be consistent with these planned stormwater drainage systems. Two drainage and water quality basins have been included on the site based upon National Pollution Discharge and Elimination System (NPDES) standards.

The proposed project is consistent with the goals and objectives of the City's General Plan. All storm drainage improvements would be developed to the standards of the City Engineer and the Riverside County Flood Control Agency. Additionally, the project has been designed in accordance with the City's standard conditions of approval, which includes measures pertaining to storm drainage facilities and runoff. The proposed project would not be impacted by the District Master Drainage Plan facilities or any other proposed facilities of regional interest, while drainage fees have been adopted pursuant to the Moreno Area Drainage Plan, which will need to be paid prior to the issuance of permits.

As with any urban project, runoff entering the storm drainage system would contain minor amounts of pollutants (including pesticides, fertilizers and motor oil). This would incrementally contribute to the degradation of surface and sub-surface water quality. Additionally, grading activities would temporarily expose soils to water erosion that would contribute to downstream sedimentation. However, through the incorporation of the Conditions of Approval, construction activities would minimize the extent of erosion and runoff from the exposed soils. As the site is currently unpaved and exposed, development of the proposed project would lessen the existing site contribution to sediment runoff at project completion. With the approval of storm drainage facilities by the City Engineer and Riverside County Flood Control District, incorporating conditions of approval into the project's design, as well as complying with all applicable storm water discharge permits, impacts would be less than significant.

g) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			4	
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Although a small easterly portion of the lies within the flood plain area, the proposed project, including a tentative parcel map and conceptual grading plan, delineates the flood plain limit. All buildings are located outside of the flood plain. This project will not be conditioned to submit a CLOMR or LOMR to FEMA to take that area within the map boundary that is within the flood plain because all proposed buildings are to be located outside of the flood plain. Also, the developer is constructing major storm drain facilities including two detention basins that control the amount of flow into the Heacock Channel.

The project has been designed according to the 100-year storm event as designed and conditioned by the project engineer. Consequently, the storm drainage system and pad location and placement have all been designed to adequately convey flows of such a magnitude. Based on the General Plan (Public Health and Safety Element, page 114), inundation of Perris Lake Dam would not affect this area of the city. Additionally, due to the location of the proposed project, mudflows from local mountains would be unlikely due to surrounding development. Therefore, there would be no impacts related to flooding.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				4
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i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				4
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(h. and i.) The site is not within a 100 year flood plain as shown on the Federal Emergency Management Agency maps. The site is designated as Zone X, which is defined as an area outside of the 500 year flood plain.

j) Inundation by seiche, tsunami, or mudflow?				4
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The site is not identified in the General Plan as a location subject to seiche, or mudflow.

9. LAND USE AND PLANNING. Would the project:				4
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a) Physically divide an established community?
The project includes nine (9) parcels, including five (5) proposed and four (4) future industrial buildings ranging from 80,620 square feet to 784,656 square feet (total of 2,336,658 sq ft.) and two detention basins on 126 acres of land in the BP (Business Park)/BPX (Business Park- Mixed Use) land use districts. The project will also include a parcel map, which would divide the land up into individual parcels but would not physically divide an existing established community.

b) Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				4
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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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There are no conflicts associated with any land use plans. The proposed uses are considered permitted uses within the underlying zoning classifications. The proposed project is consistent with the existing land use designation of Industrial and Business Park land within the General Plan.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?				4
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The proposed project will not conflict with any adopted habitat conservation plans, natural conservancy plans or any other approved local, regional, or state habitat conservation plan, as the site is clear of any known habitat areas. Riparian vegetation or water sources that could act as potential habitat for threatened or endangered species were not evident at the site.

10. MINERAL RESOURCES. Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				4
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The project site is located in an urbanized area with additional development occurring in the vicinity. No active mines, mineral recovery programs or mineral deposits are currently active within the project site or noted within the General Plan. Consequently, the development of the project site would not conflict with a mineral recovery plan as adopted by the General Plan or Specific Plan. No significant impacts would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				4
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There are no locally important mineral resource recovery sites in proximity to the site.

11. NOISE. Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			4	
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b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			4	
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c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			4	
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(a. through c.) With the development of a vacant piece of property, the potential exists for an increase in noise levels; however, there will be no substantial permanent increase in ambient noise levels with the proposed project. The potential would exist for both short and long-term impacts on ambient noise levels in the project vicinity. While short-term noise levels would be generated during each construction phase of development, long-term noise impacts were expected to result from the increased on-site population and stationary source intensity, as well as the mobile noise resulting from corresponding vehicle trips and truck deliveries. Not only would these noise impacts affect the existing adjacent residential uses, they would also affect uses within the surrounding vicinity of the project. In addition, screen walls will be included in many arrears of the project.

Based upon a Noise Assessment Study that was required and prepared for the project site, long term off-site noise generated from the project would be less than significant. Ambient noise from vehicles on surrounding streets would far exceed noise which could be generated by the project. Therefore, there would be no substantial permanent increase in ambient noise levels with the proposed project.

Short term construction related noise will also be considered at a less than significant level based on noise control measures imposed for the site. This will include limitations on construction hours, truck speeds and the location of stock piling areas as far from residents or adjacent properties as possible.

In conclusion, with the development of vacant properties, the potential exists for an increase in noise levels. However, noise levels shall not exceed that established within the City's Noise Ordinance and that which is included within the General Plan.

d) A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			4	
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During construction, there will be limited impact of noise from construction equipment. The Public Works Department has a standard condition of approval regarding the public nuisance aspect of the construction activities. The construction operations including building related activities and deliveries shall be restricted to Monday through Friday from 6:00 AM to 8:00 PM, excluding holidays, and from 7:00 AM to 8:00 PM on weekends and holidays, in accordance with City Municipal Code 8.14.040, unless otherwise extended or shortened by the City Engineer or Building Official.

e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would			4	
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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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the project expose people residing or working in the project area to excessive noise levels?

The project is not located within the area of an adopted airport land use plan. The project is not within the 65 CNEEL level of March Air Reserve Base.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

There is no private airstrip within the vicinity of the site, or within the City of Moreno Valley.

12. POPULATION AND HOUSING. Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

As the site is considered an industrial site, with population and housing growth opportunities indirectly related, the project will be planned consistent with the Citywide plan.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

There is no existing housing on the site. The site is currently vacant.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

There are no existing residences on the site; therefore the project will not displace any existing population or housing.

13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection? 4

b) Police protection? 4

c) Schools? 4

d) Parks? 4

e) Other public facilities? 4

(a. through e.) The proposed project will not significantly affect services such as fire, police, schools, parks or other public facilities. The various City departments have determined that there will not be a potential significant impact on providing any public services for the site.

The proposed project has incorporated the City's standard conditions of approval into its design. These standards include measures, which specifically address concerns regarding the Fire Prevention Bureau. Measures such as providing approved fire hydrants, fire flow requirements, mitigation impact fee programs and utilizing fire retardant materials have all been incorporated into the project's design. ISO ratings are given to fire fighting districts in order to rank their operation level. This scale ranges from one (1) the highest possible score, to a ten (10), the worst possible score. The City of Moreno Valley currently has an ISO rating of three (3), which is considered high. With the implementation of the conditions of approval of the project pertaining to Fire Services, impacts would be less than significant.

Police protection to the project area is provided through the Moreno Valley Police. The Police Department was involved in the project review process. Conditions of approval have been included by Police Department to ensure health and safety is protected during construction. Development of the project site would increase the demand on the Police Department. The project will pay development impact fees related to Police Facilities. The project is consistent with the General Plan. With payment of impact fees, the commercial center proposed for this location would not over-burden their service ability in continuing to provide high quality police service.

The Specific Plan Area is located within the Moreno Valley Unified School District. This project was transmitted to and reviewed by the Moreno Valley United School District. School fees will be required to be paid by the developer. Since the project is consistent with the General Plan, the Moreno Valley Unified School District will be able to adequately serve the students from the development, and therefore no potentially significant impact would occur.

As the project is consistent with the General Plan, all other public facilities can be adequately provided consistent with the General Plan.

14. RECREATION.

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				4
Neighborhood or regional parks are not associated with industrial projects, therefore there will be no impacts associated on these facilities from the proposed project. The project would be conditioned to pay the appropriate development impact fees, Quimby fees, and any applicable fee in effect when building permits are issued.				

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				4
As this is an industrial project, there would not be any affect on recreational facilities.				

15. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in the traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			4	

A traffic study was required to review trip generation figures for the proposed industrial complex. The Transportation Engineering Division (TED) staff has reviewed the Moreno Valley Centerpointe traffic impact analysis and supplements dated December 22, 2004, March 24, 2005, and April 28, 2005, respectively. The traffic study assumes that the proposed project is to be constructed in a single phase on an existing vacant site. At the projected Opening Year (Year 2009), the proposed development is projected to generate approximately 20,709 daily vehicle trips, 2,733 vehicles trips during the morning peak hour and 2,912 vehicles trips during the evening peak hour.

Recommended Improvements

The following program of circulation improvements is recommended to provide full mitigation to the project traffic impacts.

Intersections

- The project proponent will contribute fair-share fees towards the ultimate improvement of the following intersections. This will be satisfied by payment** of the City's development impact and/or Transportation Uniform Mitigation fees (DIF and TUMF):

Intersection	Signalization
1. Day Street and Alessandro Boulevard	Signalized
2. Elsworth Street and Alessandro Boulevard	Signalized
3. Newhope Street and Cactus Avenue	Signalized
4. Chagall Court and Alessandro Boulevard	Programmed signal
5. Perris Boulevard and Alessandro Boulevard	Signalized
6. I-215 Freeway SB Ramps and Alessandro Boulevard	Signalized
7. I-215 Freeway NB Ramps and Alessandro Boulevard	Signalized
8. I-215 Freeway SB Ramps and Cactus Avenue**	Signalized
9. SR-60 Freeway EB On Ramp and Frederick Street**	Signalized
10. SR-60 Freeway EB Off Ramp and Frederick Street**	Signalized

** It is anticipated that these interchanges will qualify per the proposed DIF Update currently under review by the City.

- To maintain acceptable peak-hour LOS, improvements will be required at the following intersections:

Old 215 Frontage Road and Alessandro Boulevard, Elsworth Street and Cactus Avenue, "A" Street and Cactus Avenue, Graham Street and Brodiaea Avenue, Graham Street and Cactus Avenue, "C" Street and Cactus Avenue, Heacock Street and Alessandro Boulevard, Heacock Street and Cactus Avenue, Heacock Street and Brodiaea Avenue and Indian Street and Brodiaea Avenue.

Modifications may include, but are not limited to the relocation of signal poles, replacement of mast-arms, signal heads, and controller cabinets, traffic induction loops, paving, concrete curbs, gutters, and sidewalks, signing and striping, and landscaping. The exact requirements will be determined during the plan check process.

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Other Roadway Improvements

3. "A" Street (Project West Collector) is designated an Industrial Collector (78' RW/56' CC) and will be improved to full width where project fronts both sides of "A" Street and half width plus 18 feet where project fronts only one side of "A" Street per the City's Standard Plan No. 106.
4. "B" Street is designated an Industrial Collector (78' RW/56' CC) and will be improved to half width plus 18 feet per the City's Standard Plan No. 106.
5. Brodiaea Avenue, from Frederick Street to "A" Street, is designated as an Industrial Collector (78' RW/56' CC) and will be improved to full width per the City's Standard Plan No. 106.
6. Brodiaea Avenue, from "A" Street to Heacock Street, is designated an Industrial Collector (78' RW/56' CC) and will be improved to full width where project fronts both sides of the Brodiaea Avenue and half width plus 18 feet where project fronts only one side of Brodiaea Avenue per the City's Standard Plan No. 106.
7. "C" Street (Project East Collector) is designated an Industrial Collector (78' RW/56' CC) to a full width south of Brodiaea Avenue and to full width north of Brodiaea Avenue per the City's Standard Plan No. 106.
8. Cactus Avenue, from "A" Street to Graham Street, is designated a Modified Divided Major Arterial (120' RW/102' CC) and will be improved to half-street width along project frontage per the City's Standard Plan No. 102.
9. Cactus Avenue, from Graham Street to Heacock Street, is designated an Arterial (100' RW/76' CC). The proposed Circulation Element for the General Plan Update recommends that this portion of Cactus Avenue be reclassified as a Modified Divided Major Arterial (120' RW/102' CC). The project proponent has agreed to install half-street improvements as recommended in the GP Update and per the City's Standard Plan No. 102.
10. Frederick Street, from Calle de San Juan De Los Lagos to forty (40) feet south of Brodiaea Avenue will have a median installed in order to prevent southbound left-turns and westbound left-turns at the intersection of Brodiaea Avenue and Frederick Street.
11. Graham Street, from Brodiaea Avenue to Cactus Avenue, is designated a Minor Arterial (88' RW/64 CC) and will be improved to full-street width per the City's Standard Plan No. 105.
12. Heacock Street north of Alessandro Boulevard will be restriped to allow for a southbound right-turn lane.
13. "A" Street and "B" Street termini will have temporary cul-de-sacs per the City's Standard Plan No. 123 (modified to 39-foot radius within 78-foot right-of-way).

Transportation Engineering Division staff had reviewed and approved the revised traffic impact analysis for the subject development and with the above recommended improvements and proposed mitigation measures. Based on the review of the proposed industrial warehouse complex, and the additional improvements and mitigation measures required, staff has determined that the proposed project will not create potentially significant traffic impacts, while the project will have a less than significant impact upon the environment.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			4	
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It is not anticipated that the industrial project will exceed a level of service, with the implementation of required mitigation measures, included above or within an established adopted regional congestion management plan. It is not anticipated that this project will create potentially significant traffic impacts as reviewed and approved in the required traffic study.

All streets would be developed to the specifications of the City Engineer and Traffic Engineer, which is consistent with the General Plan. Additionally, all conditions of approval as recommended by the Traffic Study will be incorporated into the project approval. This would ensure that no hazardous traffic situations would occur during construction or with completion of the project.

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				4
The proposed project would have no direct or indirect effect on air traffic patterns from March Air Reserve Base or any other air traffic source.				
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?			4	
As designed, the project will not result in any hazards. The project is not adjacent to any potential incompatible land uses.				
Based upon the location of the proposed industrial facility and the use of diesel trucks, an Air Quality Analysis and Health Risk Assessment, dated February 24, 2005, were completed. Based upon the conclusions of the studies, mitigation or improvements were required within the Air Quality Analysis, while no mitigation measures were required within the Health Risk Assessment. . The studies demonstrate that residential areas in close proximity to the project would not be exposed to diesel particulate matter that exceeds thresholds established by the Southern California Air Quality Management District's (SCAQMD) CEQA Handbook. It is anticipated that residents in the area will not be subject to increased cancer or any other non-cancer risks as a result of the project.				
e) Result in inadequate emergency access?				4
The proposed project will not directly impact emergency access.				
f) Result in inadequate parking capacity?				4
The proposed project will not directly impact parking capacity. There will be efficient onsite parking to handle the proposed industrial warehouse building.				
g) Conflict with adopted policies or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				4
The proposed project will not provide conflicts with adopted transportation policies. For example, required bus turnouts and bicycle parking will be provided throughout the site.				
16. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				4
b) Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				4
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			4	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			4	
e) Result in a determination by the wastewater treatment provider which services or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				4

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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(a. through e.) The proposed project will not exceed wastewater requirements of the Regional Water Quality Control Board, since the project is consistent with current General Plan standards. The proposed project is expected to result in the use of utilities similar to any project within the Industrial Area Specific Plan. In addition, and as required by SB 610, water assessment shall be reviewed for industrial projects having more than 650,000 square feet of floor area. Pursuant to the approval of a water supply assessment study as performed by the Eastern Municipal Water District (EMWD), water supply will be sufficient for the proposed project, with service provided by EMWD.

The proposed project will not exceed wastewater requirements of the Regional Water Quality Control Board. The project would not require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, or require or result in the construction of new storm water drainage facilities, or expansion of existing facilities.

Build-out of the Specific Plan Area was expected to result in an increase of runoff generated from the plan area, which in turn could result in the increase of floodwaters downstream. This increase in runoff was attributable to the increase of impervious surfaces planned within the project area. This increase in impervious surfaces was expected to result in an increase in peak runoff. All streets within the planning area were to be installed with a storm drainage conveyance system designed to provide 100-year storm protection according to the EMWD specifications.

The project site is within the Moreno Area Drainage Plan, which is a part of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The storm drainage system would be designed to City and County Agency standards and existing storm drainage system. It should be noted that the project engineer designed the project based on a 100-year storm event as well as incorporating all applicable measures identified in the City's standard conditions of approval. Specifically, based on total water volume generated from a 100-year storm event and the associated rise in water inundation onto the project site from storm flows, all storm drainage facilities would be able to adequately convey storm flows without inundating the residential portions of the site. Therefore, no significant impacts would occur and it has been determined that adequate water service can be provided.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			4	
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The needs of the project for solid waste capacity would be considered at a less than significant level. The proposed project is expected to result in the use of utilities similar to a majority of the industrial uses in the vicinity. The City is complying with State and Federal regulations regarding solid waste. All future projects will comply with the current policies regarding solid waste.

g) Comply with federal, state, and local statutes and regulations related to solid waste?			4	
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The City is complying with State and Federal regulations regarding solid waste. All future projects will comply with the current policies regarding solid waste.

17. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			4	
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The project would not significantly degrade the quality of the environment or reduce the habitat of a fish or wildlife species, cause fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Although he site is currently vacant, there was no evidence of existing drainage and/or riparian vegetation located on the project site. The analysis in this Initial Study demonstrates that project and cumulative impacts would be less than significant. Finally, the project will not result in substantial adverse health effects on human beings. There are no historic structures on the site, and there will be no impact to historic resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?			4	
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Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Section 15355 of the California Environmental Quality Act Guidelines defines cumulative impacts as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts." The 1998 revisions to the CEQA Guidelines included some modifications to the language with regard to cumulative impacts.

The project will not result in impacts that are individually limited but cumulatively considerable. All proposed land configurations and land uses have been previously approved under the original General Plan.

The project would not significantly degrade the quality of the environment or reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The analysis in this Initial Study demonstrates that project and cumulative impacts would be less than significant.

The proposed project will not result in impacts that are individually limited but cumulatively considerable. Thus, the proposed project will have a less than significant impact on the environment. The proposed industrial project, including required mitigation measures, would not result in impacts that are individually limited but cumulatively considerable. Since all of the projects within the existing Specific Plan area, and adjacent areas, have been analyzed in the traffic study for the proposed Specific Plan Amendment, any new issues with regard to new uses within the plan area or adjacent to the plan area that may have changed the circumstances warranting further analysis have, been mitigated fully to a less than significant level.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			4	
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Based on the review of the proposed industrial warehouse complex, and the additional improvements and mitigation measures required within an Air Quality Analysis and Traffic Study, staff has determined that the proposed project will not create potentially significant traffic impacts, while the project has a whole will have a less than significant impact upon the environment.

The proposed industrial warehouse distribution facility, with the implementation of required mitigation measures, will not cause substantial adverse effects on human beings, either directly or indirectly. In conclusion, the proposed industrial facility, including required mitigation measures, does not have the potential to degrade the quality of the environment. All potential environmental impacts will be reduced to a less than significant with incorporated conditions of approval and proposed mitigation.

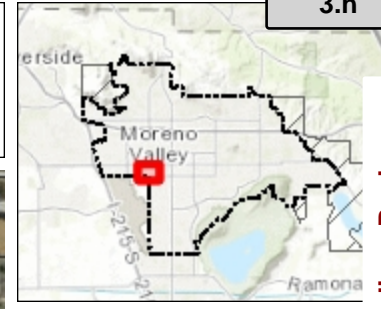
Note: All of the information sources referenced above are on file in the offices of the City of Moreno Valley, Community and Economic Development Department, Planning Division at 14177 Frederick Street, Moreno Valley, CA 92553.

u: markg /PA04-0063/Initial Study

Confidential
Mar 15, 2015 13:28

Attachment: Original Initial Study 2005 (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Aerial Photograph



Legend

- Master Plan of Trails
- Bridge
 - Improved
 - Multiuse
 - Proposed
 - Regional
 - State
- Parcels
 - City Boundary
 - Sphere of Influence

1,261.9 0 630.96 1,261.9 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 4/18/2017

DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map.

Notes

VICINITY MAP:



SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO DRIVEWAYS
- 4'-0" DEKATED CITY SIDEWALK AREA
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE PARKING AND TRAILER STRIPPING

KEYNOTES:

1. 4'-0" HIGH GALVANIZED TUBE STEEL FENCE
2. EXTERIOR GALVANIZED TUBE STEEL U-SHAPED BIKE RACK
3. CONCRETE PAINTED TRASH ENCLOSURE WITH SOLID GATE
4. 4'-0" HIGH CONCRETE PAINTED SCREENWALL, PAINTED TO MATCH THE BUILDING

UTILITY PROVIDERS / AGENCIES:

- ELECTRICAL SERVICES: MORENO VALLEY ELECTRICAL, P.O. BOX 88053, MORENO VALLEY, CA 92552, T: 951-413-3226
- DOMESTIC WATER: EAST MUNICIPAL WATER DISTRICT, 2010 SHIMMERS ROAD, PERRIS, CA 92571, T: 961-928-3777, EXT. 4429
- TELEPHONE SERVICE: FRONTIER, 100 SOUTH BANTA, HEALY, CA 92543, T: 951-925-9412
- FIRE PROTECTION: CITY OF MORENO VALLEY, 14117 FREDECA STREET, MORENO VALLEY, CA 92552, T: 951-413-3481
- NATURAL GAS SERVICES: THE GAS COMPANY, 2300 TRIMBLE ROAD, MORENO VALLEY, CA 92556, T: 951-429-2801
- SEWERAGE DISPOSAL: SERRA DISPOSAL, 5070 BENTLEY ROAD, PERRIS, CA 92571, T: 961-928-3777, EXT. 4429
- CABLE TV: TIME WARNER, 190 SOUTH CENTER DRIVE, ONTARIO, CA 91761, T: 909-975-3462

PROJECT DATA:

- NET SITE AREA: 202,498 SF / 4.71 AC
- BUILDING AREA: OFFICE: 5,000 SF, WAREHOUSE: 94,978 SF, TOTAL: 99,978 SF
- NET LOT COVERAGE: 34.18 %
- PARKING: BICYCLES: 20 STALLS, CARS: 12,000 SF (11 / 1,000 SF), 20-40,000 SF (11 / 1,000 SF), 40-80,000 SF (11 / 1,000 SF), TOTAL PARKING REQUIRED: 87 STALLS
- TOTAL STALLS PROVIDED: 87 STALLS
- BICYCLE PARKING PROVIDED: (% OF REQUIRED PARKING): 4 BIKES
- TRAILER PARKING REQUIRED: (1 PER DOCK DOOR): 17 TRAILERS
- TRAILER TRAILERS PROVIDED: 23 TRAILERS
- LANDSCAPE PROVIDED: 61,287 SF OR 17.33 %

LEGAL DESCRIPTION:

TAKEN FROM FIRST AMERICAN TITLE INSURANCE COMPANY PRELIMINARY TITLE REPORT OR DERIVED FROM REC-108-03092 DATED AUGUST 4, 2016. THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP IN FILE # BROCK 216, PAGE 34 TO 42, BELLUNG OF PARCELS MAPS, RIVERSIDE COUNTY RECORDS. EXCEPT THEREFROM THAT PORTION OF PARCEL 7 AS CONVEYED TO THE UNITED STATES POSTAL SERVICE BY DEED RECORDED FEBRUARY 4, 2005 AS INSTRUMENT NO. 2005-0449 OF OFFICIAL RECORDS.

DEVELOPER / OWNER:

17871 MITCHELL STREET NORTH, SUITE 200, IRVINE, CA 92614, CONTACT: ALAN SHARP

PREPARED BY:

RSA, OFFICE OF ARCHITECTURAL DESIGN, 1823 ALTON PARKWAY, SUITE 100, IRVINE, CA 92614, CONTACT: ANN BELL

GENERAL NOTES:

1. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED WITH ADDITIONAL LANDSCAPE.
2. ALL ROOF TOP EQUIPMENT SHALL BE SCREEN BY ROOF PARAPET OR ROOF SCREEN.
3. ALL ACCESS GATES SHALL BE ELECTRONICALLY OPERATED TO BE PROVIDED WITH KNEX KEY SWITCHES FOR ACCESS.

ASSESSOR'S PARCEL NUMBERS:

357-15-075

ZONING INFORMATION:

BUILDING: OFFICE / WAREHOUSE, CONSTRUCTION TYPE: B-3, OCCUPANCY: B-3, ZONE: BP - BUSINESS PARK

RG A
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

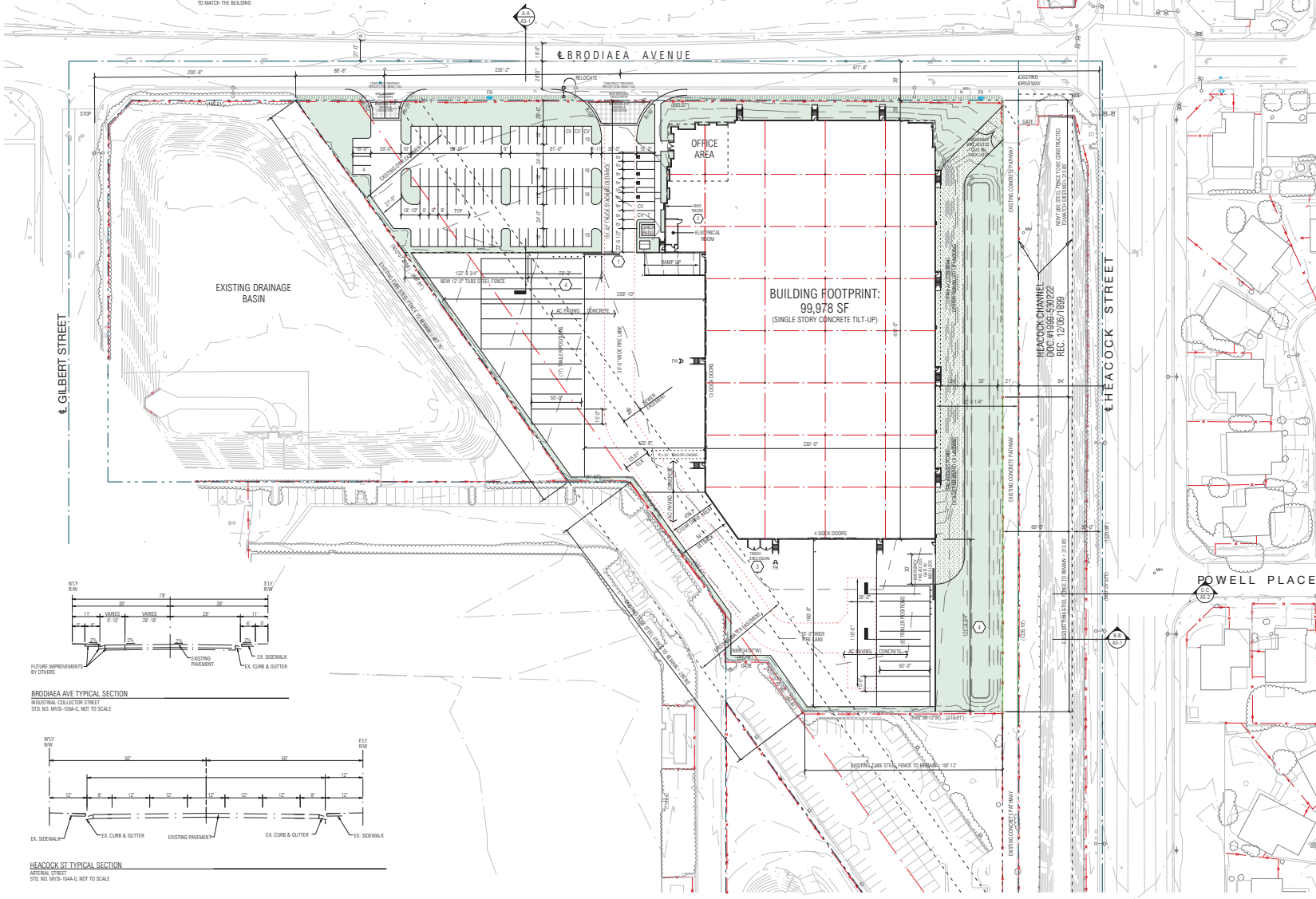
PROJECT NAME
BRODIAEA AVENUE DEVELOPMENT

0000 BRODIAEA AVENUE
CITY OF MORENO VALLEY, CA

CORE FIVE
17871 MITCHELL STREET NORTH
SUITE 200
IRVINE, CA 92614
CONTACT: ALAN SHARP

NO.	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	8/30/16	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

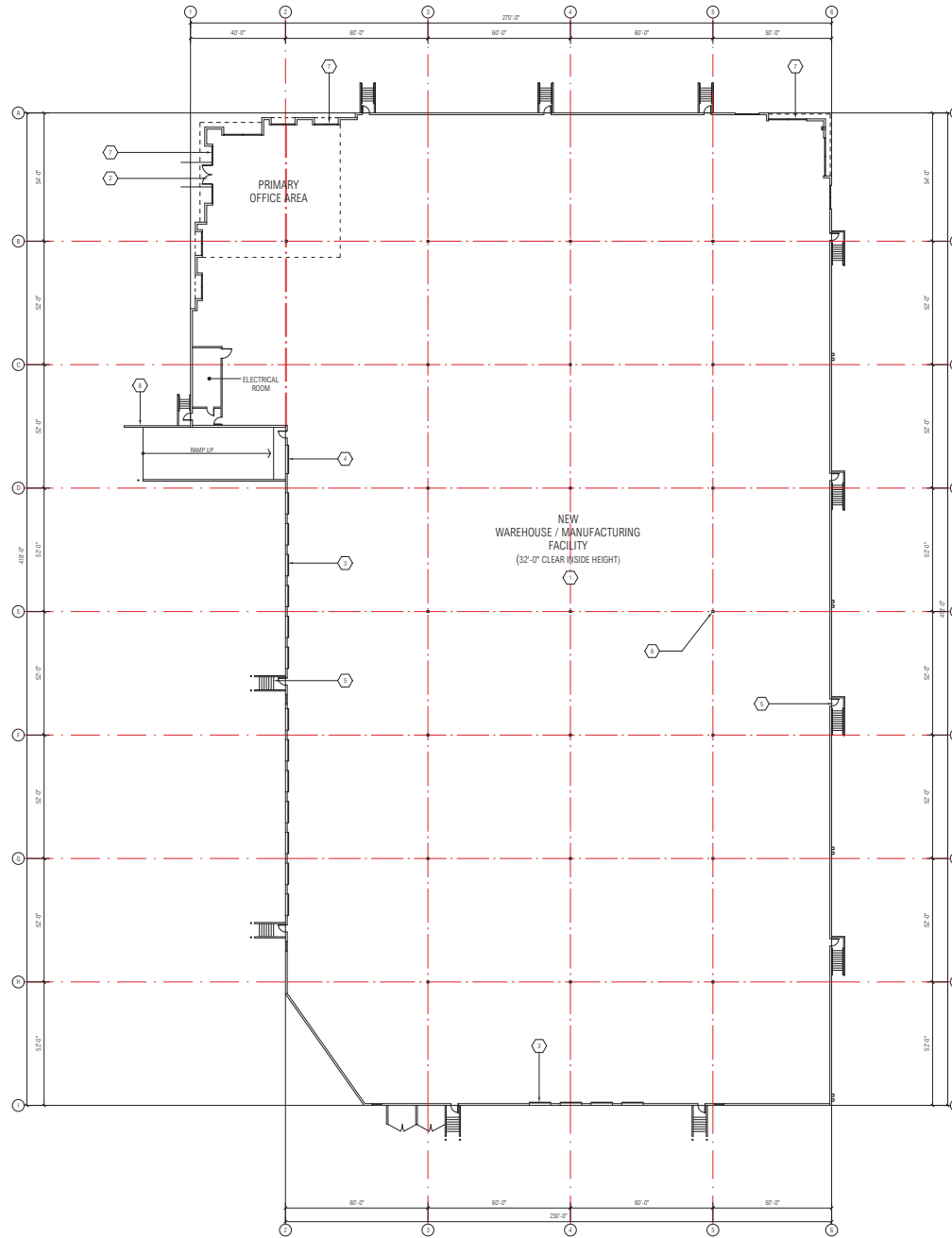
RGA PROJECT NO.	18129-00
OWNER PROJECT NO.	00000-00
CAD FILE NAME:	18129-00-A1-1P
DRAWN BY:	MIG
CHECK BY:	CRK
COPYRIGHT	RSA, OFFICE OF ARCHITECTURAL DESIGN
SHEET TITLE	SITE PLAN



SITE PLAN
SCALE: 1" = 40'-0"

KEYNOTES

1. PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE FACILITY.
2. PRIMARY BUILDING ENTRANCE.
3. PAINTED 2' X 10' DOOR HIGH METAL TRUCK DOORS.
4. PAINTED 12' X 14' GRADE LEVEL METAL TRUCK DOORS.
5. PAINTED 2' X 7' METAL ACCESS MAN DOORS.
6. STRUCTURAL BUILDING COLUMN.
7. STOREFRONT GLAZING SET IN CLEAR ANODIZED ALUMINUM 2' X 4 1/4" MIN. OFF-SET GLAZING SYSTEM.
8. CONCRETE TILT-UP SCREEN WALL. PAINT TO MATCH BUILDING.



FLOOR PLAN
SCALE: 1" = 20'-0"



CONSULTANT

PROFESSIONAL SEALS

PROJECT NAME

**BRODIAEA AVENUE
DEVELOPMENT**

0000 BRODIAEA AVENUE
CITY OF MORENO VALLEY, CA

CORE FIVE
17871 MITCHELL STREET NORTH
SUITE 200
IRVINE, CA 92614
CONTACT: ALAN SHARP

SD	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/16	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

RGD PROJECT NO.	18129.00
OWNER PROJECT NO.	0000.00
CAD FILE NAME:	18129.00-A2-1P
DRAWN BY:	MG
CHECK BY:	GR
COPYRIGHT	RGD, OFFICE OF ARCHITECTURAL DESIGN

FLOOR PLAN

SD	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/16	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

RGD PROJECT NO.	18129.00
OWNER PROJECT NO.	00000.00
CAD FILE NAME:	18129.00-AS-1P
DRAWN BY:	MMS
CHECK BY:	ASR
COPYRIGHT	
RGD, OFFICE OF ARCHITECTURAL DESIGN	
SHEET TITLE	

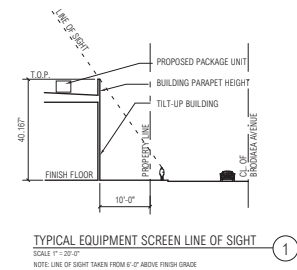
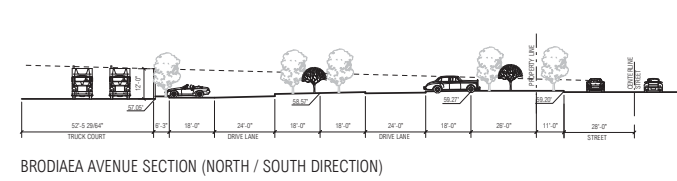
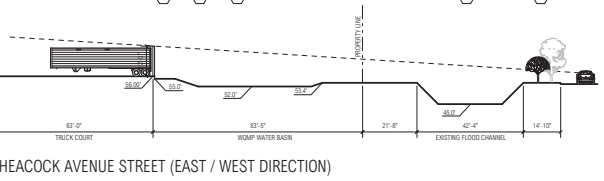
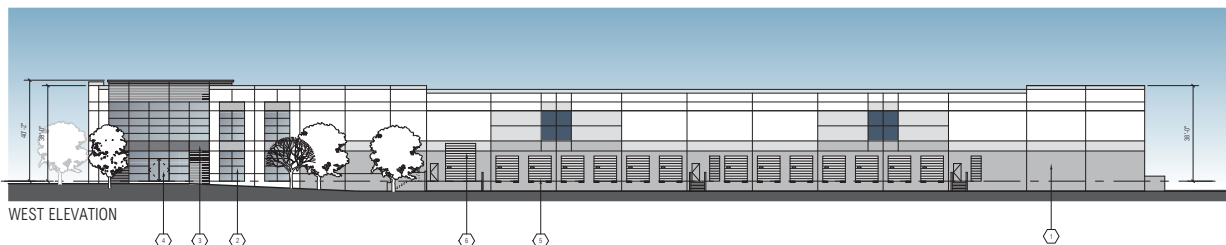
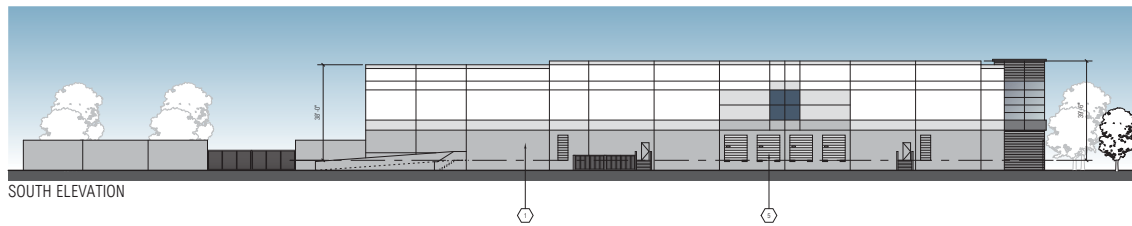
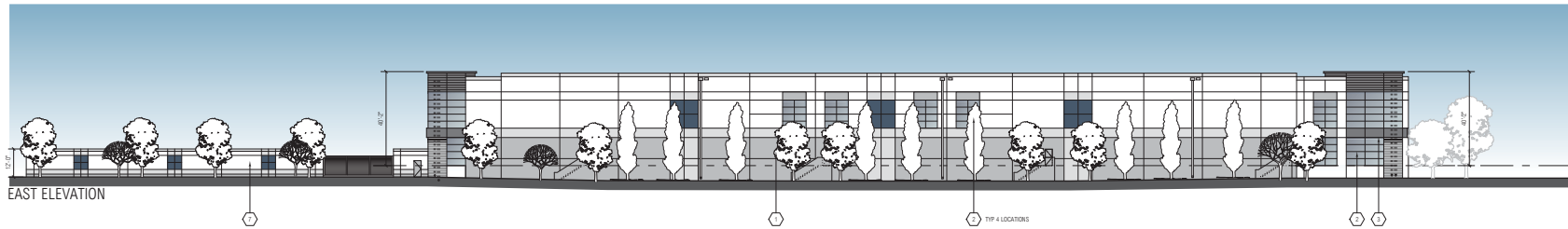
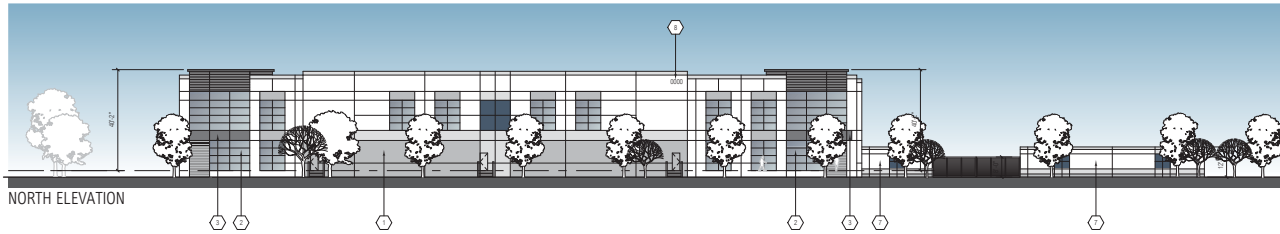
EXTERIOR ELEVATIONS

KEYNOTES:

1. PAINTED CONCRETE TILT-UP PANELS W/ ACCENT REVEALS AS SHOWN.
2. REFLECTIVE BLUE GLASS IN CLEAR ANODIZED ALUMINUM MULLION SYSTEM.
3. ALUMINUM FINISHED CANOPY OVER ENTRY.
4. RECESSED ENTRY WITH PRIMARY GLASS ENTRANCE DOORS.
5. PAINTED 2" X 4" 10' DOOR HIGH VERTICAL LIFT METAL TRUCK DOOR ASSEMBLY WITH DOOR BUMPER. SEE DOOR SCHEDULE.
6. PAINTED 12" X 14" GRADE LEVEL VERTICAL LIFT METAL TRUCK DOOR ASSEMBLY. SEE DOOR SCHEDULE.
7. CONCRETE TILT-UP SCREEN WALL, PAINT AND REVEALS AS SHOWN TO MATCH BUILDING.
8. BUILDING ADDRESS LETTERS FOR POLICE AND PLANNING DEPTS. ADDRESS TO BE SELF-LITE OR BY BUILDING LIGHTING.

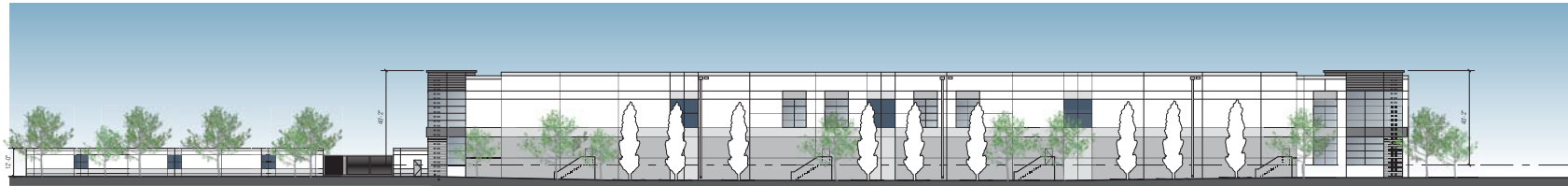
FINISH SCHEDULE

1. FIELD COLOR - FRAZEE COLORLIFE - CL 3211W WASH BASIN
2. LIGHT ACCENT COLOR - FRAZEE COLORLIFE - CL 3233M CAPRICORN
3. MEDIUM ACCENT COLOR - FRAZEE COLORLIFE - CL 3235D ROCK BOTTOM
4. DARK ACCENT COLOR - FRAZEE COLORLIFE - CL 3238A ESTATE
5. GLAZING / SPANDREL GLAZING - BLUE PACIFIC SOLORCOOL
6. ALUM METAL CLADDING CANOPY - REYNOLDBOND TOYOTA SILVER

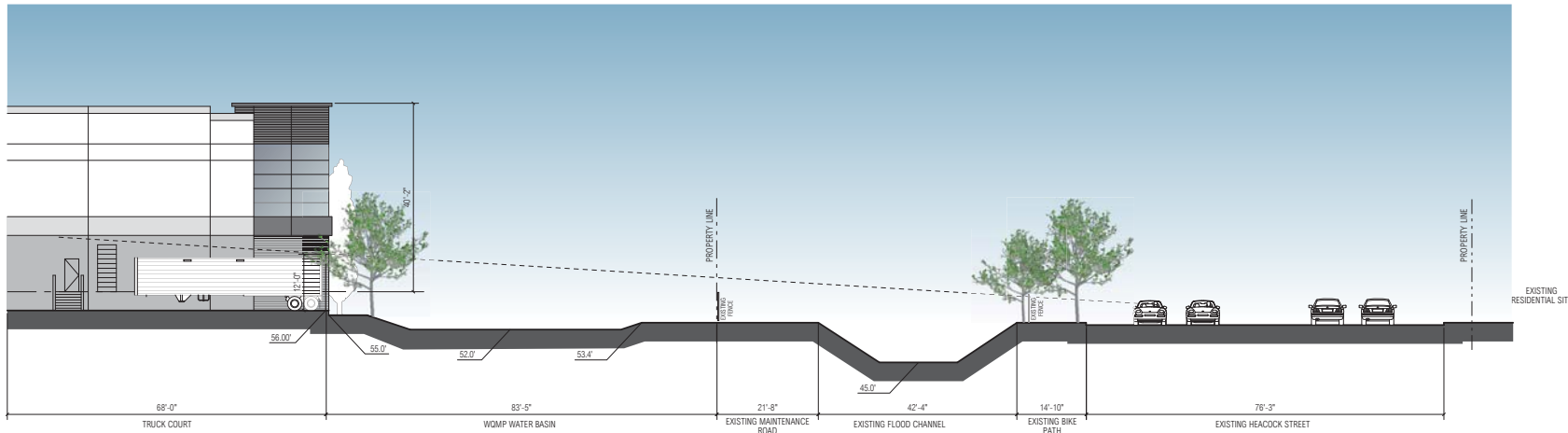


FINISH SCHEDULE

1. FIELD COLOR - FRAZEE COLORLIFE - CL 3211W WASH BASIN
2. LIGHT ACCENT COLOR - FRAZEE COLORLIFE - CL 3233M CAPRICORN
3. MEDIUM ACCENT COLOR - FRAZEE COLORLIFE - CL 3235D ROCK BOTTOM
4. DARK ACCENT COLOR - FRAZEE COLORLIFE - CL 3238A ESTATE
5. GLAZING / SPANDREL GLAZING - BLUE PACIFIC SOLIDPCOOL
6. ALUM METAL CLADDING CANOPY - REYNOLDBOND TOYOTA SILVER



EAST ELEVATION
SCALE: 1" = 20'-0"



HEACOCK AVENUE STREET (EAST / WEST DIRECTION)
SCALE: 1" = 10'-0"

CONSULTANT

PROFESSIONAL SEALS

BRODIAEA AVENUE DEVELOPMENT

0000 BRODIAEA AVENUE
CITY OF MORENO VALLEY, CA

CORE FIVE
17871 MITCHELL STREET NORTH
SUITE 200
IRVINE, CA 92614
CONTACT: ALAN SHARP

NO.	DATE	DESCRIPTION
SD	1/30/17	SCHEMATIC DESIGN
SD	9/30/18	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

RGA PROJECT NO.	18129.00
OWNER PROJECT NO.	00000.00
CAD FILE NAME:	18129.00-AS-1P
DRAWN BY:	MMS
CHECK BY:	GR
COPYRIGHT	RGA, OFFICE OF ARCHITECTURAL DESIGN
SHEET TITLE	EXTERIOR ELEVATIONS

3.1
A3-2P

Parcel No 203

PLANTING LEGEND

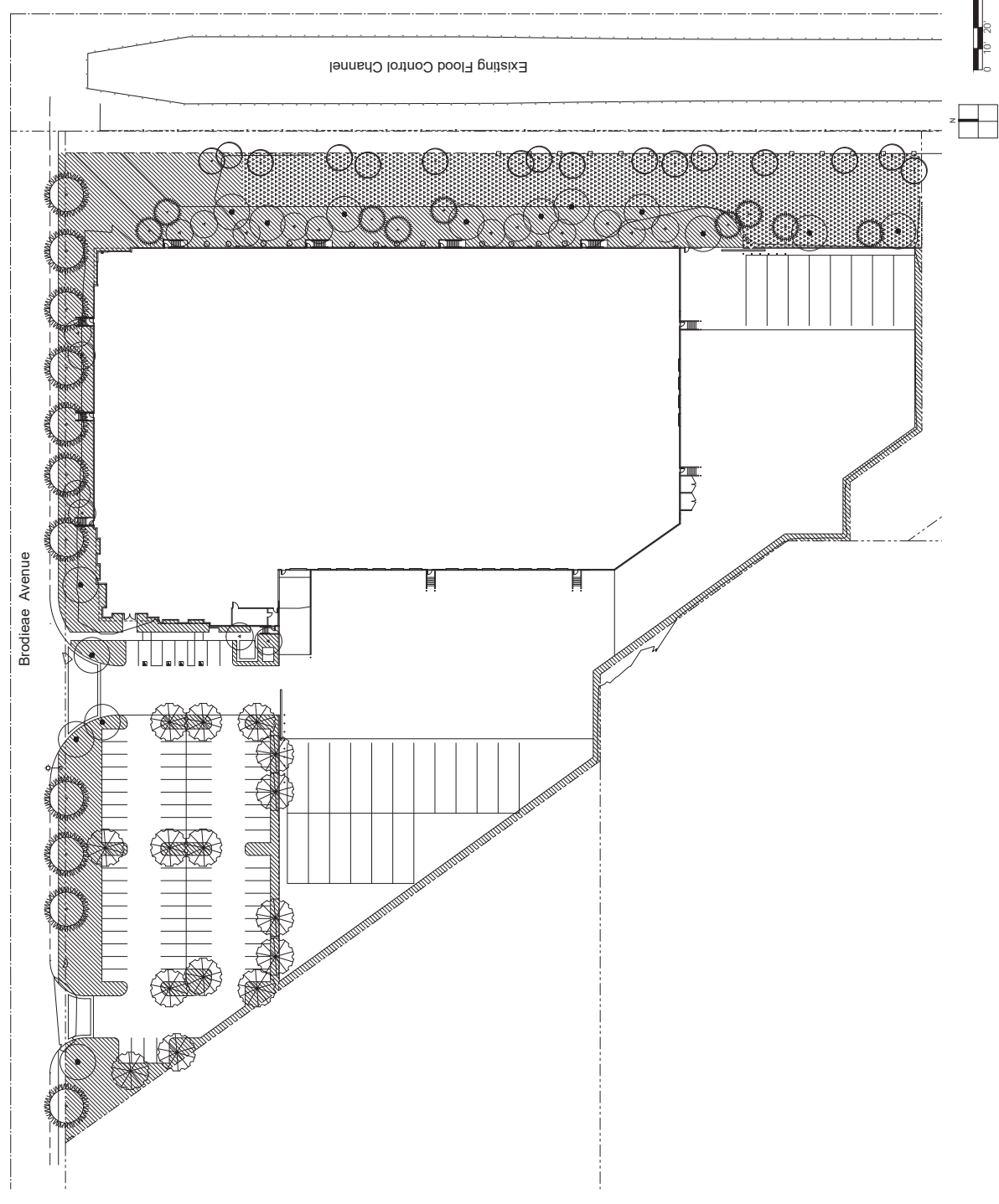
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(Symbol)	15' L. Oak	15	
(Symbol)	15' W. Oak	15	
(Symbol)	15' L. Street	15	
(Symbol)	15' W. Street	15	
(Symbol)	15' L. Oak	15	
(Symbol)	15' W. Oak	15	
(Symbol)	15' L. Street	15	
(Symbol)	15' W. Street	15	

SYMBOL	DESCRIPTION	QTY	NOTES
(Symbol)	15' L. Oak	15	
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(Symbol)	15' W. Street	15	
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(Symbol)	15' W. Oak	15	
(Symbol)	15' L. Street	15	
(Symbol)	15' W. Street	15	

SYMBOL	DESCRIPTION	QTY	NOTES
(Symbol)	15' L. Oak	15	
(Symbol)	15' W. Oak	15	
(Symbol)	15' L. Street	15	
(Symbol)	15' W. Street	15	
(Symbol)	15' L. Oak	15	
(Symbol)	15' W. Oak	15	
(Symbol)	15' L. Street	15	
(Symbol)	15' W. Street	15	

16-068
07/25/17



Brodiaea Avenue Development

Core Five

Moreno Valley, California

HUNTER LANDSCAPE
711 FEE AWA STREET
PLACENTIA, CA 92870
714.986.2400
FAX 714.986.2408

IN THE CITY OF MORENO VALLEY

BRODIAEA BUSINESS CENTER - PM32326

CONCEPTUAL GRADING PLAN

OWNER:
 COMPANY: PROLOGIS DEVELOPMENT SERVICES, INC.
 CONTACT: DANON AUSTIN
 ADDRESS: 11711 CENTER COURT DR., N #100
 CERRITOS, CA 90703
 PHONE: (949) 945-4200

APPLICANT:
 COMPANY: CORE 5
 CONTACT: ALAN SHARP
 ADDRESS: 11871 MITCHELL NORTH, SUITE 200
 IRVINE, CA 92614
 PHONE: (951) 284-0273

ENGINEER:
 COMPANY: ALBERT A. NEBB ASSOCIATES
 CONTACT: DU ARELLANO
 ADDRESS: 3768 MCCRAY ST
 RIVERSIDE, CA 92506
 PHONE: (951) 686-1070
 FAX: (951) 788-1256

ARCHITECT:
 COMPANY: RGA ARCHITECTS
 CONTACT: MIKE GILL
 ADDRESS: 15231 ALTON PARKWAY, SUITE #100
 IRVINE, CA 92618
 PHONE: (949) 461-1100
 FAX: (949) 863-0851

TOPOGRAPHY:
 INLAND AERIAL SURVEY
 DATED: 8-15-16

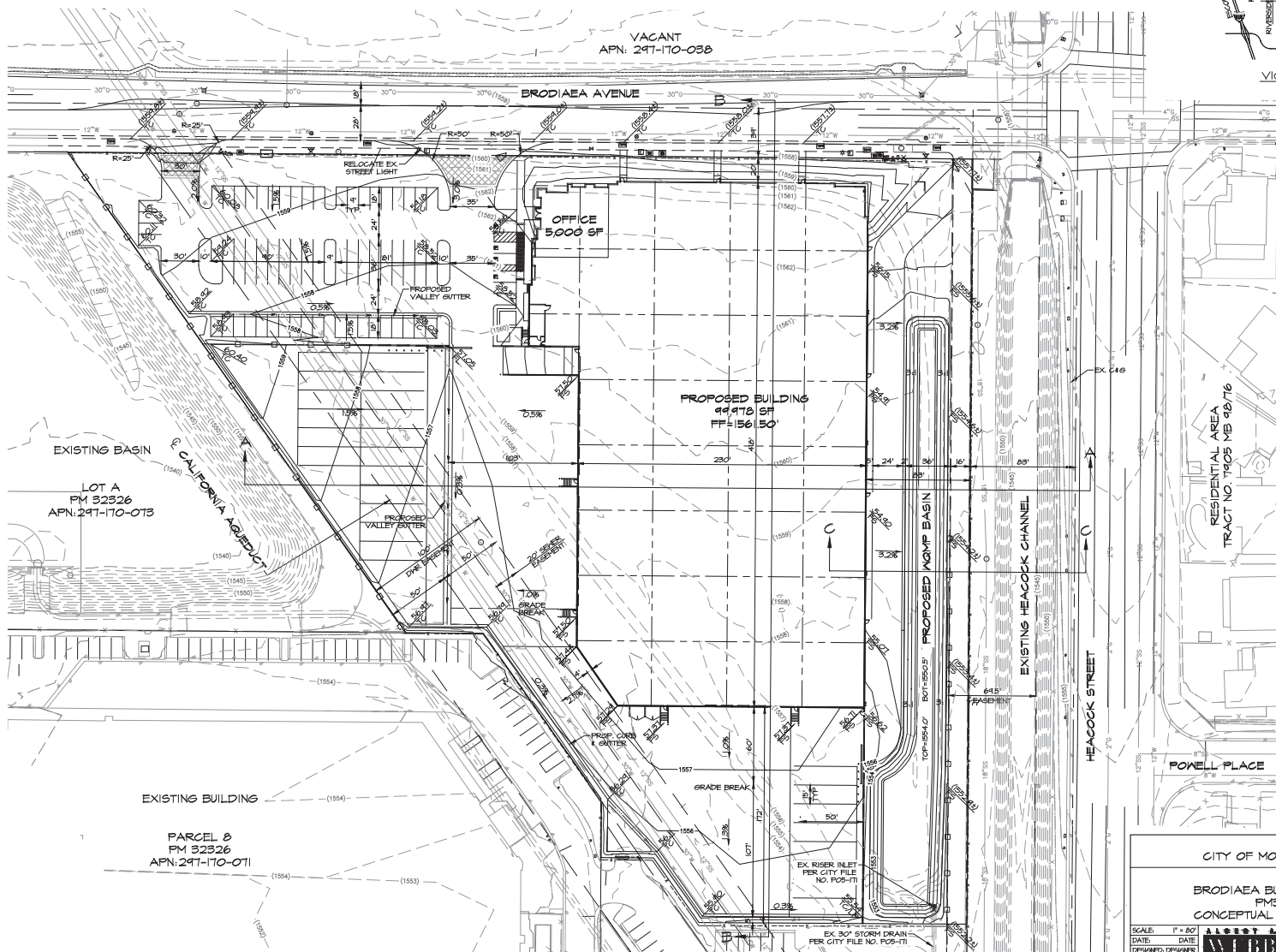
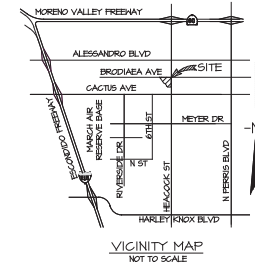
A.P.N.
 241-170-018-5

ACREAGE
 GROSS SITE AREA: 6.11 AC.
 NET SITE AREA: 6.11 AC.

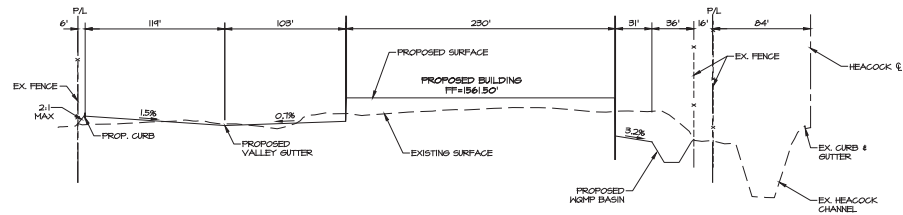
EARTHWORK ESTIMATE:
 CUT: 31,260 CY
 FILL: 29,110 CY
 SHRINKAGE: 2,720 CY
 NET: 0 CY BALANCED

LEGEND

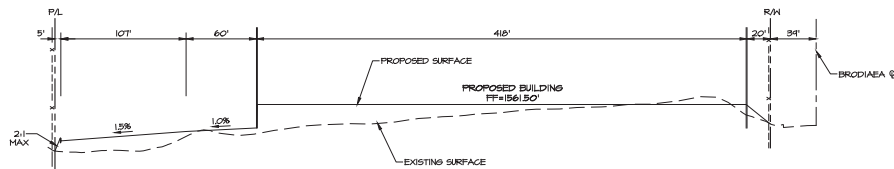
- PROPOSED SCREEN WALL
- PROPOSED FENCE
- GRADE/PAVEMENT/EDGE LINE
- TIE LINE
- (475)--- EXISTING CONTOUR
- (475)--- PROPOSED CONTOUR
- (475)--- EXISTING WATER LINE
- (475)--- EXISTING SEWER LINE
- (475)--- EXISTING STORM DRAIN
- (475)--- EXISTING GAS LINE
- (475)--- EXISTING ELECTRICAL LINE
- FS FINISH SURFACE
- FL FLOW LINE
- GB GRADE BREAK
- GRD GRASS
- LP LIGHT POINT
- MAX MAXIMUM
- PL PROPERTY LINE
- RM RIGHT OF WAY
- TP TYPICAL



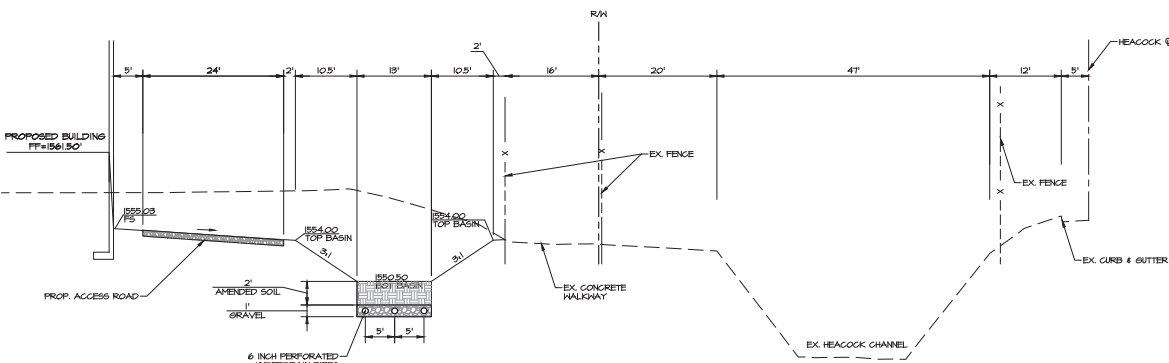
CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM32326 CONCEPTUAL GRADING PLAN			
SCALE: 1" = 80'	DATE: DATE	ENGINEERING CONSULTANTS 3768 MCCRAY STREET RIVERSIDE, CA 92506 PH: (951) 686-1070 FAX: (951) 788-1256	NO. 2016-0236
CHECKED: RB	DESIGNED: RB	ASSOCIATES	SHEET 1
PLN. CK. REF: REF	REF		OF 2 SHEETS
F.B.	F.B.		DWS. NO.



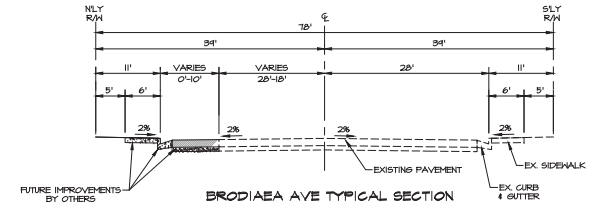
SECTION A-A
NOT TO SCALE



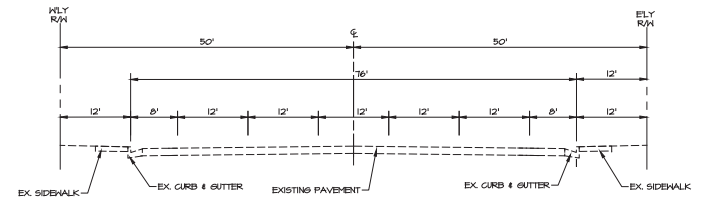
SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE



BRODIAEA AVE TYPICAL SECTION
INDUSTRIAL COLLECTOR STREET
STD. NO. MV5H-100A-G, NOT TO SCALE



HEACOCK ST TYPICAL SECTION
ARTERIAL STREET
STD. NO. MV5H-100A-G, NOT TO SCALE

CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM 52526 CROSS SECTIONS			
SCALE: 1" = 50'	DATE:	ENGINEERING CONSULTANTS 3150 MCCRAY STREET RIVERSIDE, CA 92506 PH: (951) 696-9700 FAX: (951) 746-1256	PROJECT NO. 2016-0226
DESIGNED: RB	CHECKED: RB	DATE:	SHEET 2
PLN. CK. REF: REF	DATE:	DATE:	OF 2 SHEETS
FILE:	FILE:	DATE:	DWG. NO.

Air Pollutant and Greenhouse Gas Emissions Modeling Sheets
BRODIAEA BUSINESS CENTER
 February 20, 2017

CalEEMod 2016.3.1

Inputs/Assumptions:

99,978 sf warehouse, 131,487 sf asphalt

Grading 6 days: 1 dozer, 2 loader/backhoes, 1 grader

Construction 220 days: 1 crane, 2 forklifts, 1 loader/backhoe, 3 welders, 1 generator set

Paving 10 days: 1 mixer, 1 paver, 2 rollers, 1 loader/backhoe, 1 paving equipment

Construction Phasing & Equipment			
Phase		Duration	Equipment
1	Grading	6 days	Graders (1) Dozer (1) Tractors/Loaders/Backhoes (2)
2	Construction	220 days	Crane (1) Welders (3) Forklift (2) Generator set Tractors/Loaders/Backhoe (1)
3	Paving	10 days	Tractors/Loaders/Backhoe (1) Mixers (1) Paver (1) Roller (2) Paving Equipment (1)

Estimated Construction Emissions

Maximal Construction Emissions ¹	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
2017						
Unmitigated	8.3	27.5	21.6	0.0	8.4	4.6
Mitigated*	8.3	27.5	21.6	0.0	4.1	2.6
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Threshold (Yes/No)	No	No	No	No	No	No

¹Emissions are expressed in pounds per day.

*Exposed surfaces will be watered three times per day during grading activities

Proposed Uses Daily Operational Air Pollutant Emissions

Adjusted Fleet Mix to 80.3% auto, 5.2% 2-axle, 4.5 % 3-axle, 10% 4 axle Per TIA
356 daily trips

Source	Operational Emissions ¹						
	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}	CO ₂
Area	2.3	0.0	0.0	0.0	0.0	0.0	0.1
Energy	0.0	0.1	0.0	0.0	0.0	0.0	66.4
Mobile	0.8	10.2	113	0.0	3.4	1.0	5,184.8
Total	3.1	10.3	11.3	0.0	3.4	1.0	5,251.2
SCAQMD Threshold	55	55	550	150	150	55	--
Exceeds Threshold (Yes/No)	No	No	No	No	No	No	No

¹Emissions are expressed in pounds per day

Localized Significance Thresholds (LSTs) and Project Emissions (pounds/day)

LST 1.0 acre/50 meters Perris Valley	CO	NO_x	PM-10	PM-2.5
LST Threshold	887	148	12	10
Max On-Site Emissions*				
Unmitigated	22	28	8	5
Mitigated	22	28	4	3
Exceeds Threshold?	No	No	No	No

LSTs were compared to the maximum daily construction activities. As seen above, emissions will meet the LST for construction thresholds with the application of the following measure:

- Exposed surfaces will be watered three times per day during grading activities

LST impacts are less-than-significant with the application of this mitigation measure.

Annual GHG Construction Emissions¹

	MTCO₂(e)¹
Year 2017	382.5
Amortized ²	12.8
¹ Emissions expressed in Metric Tons (MT) ² Construction emissions are amortized over a 30-year period.	

Annual Operational GHG Emissions

	Year 2018
Consumption Source	MTCO₂(e)
Area Sources	0.0
Energy Utilization	88.0
Mobile Source	829.7
Solid Waste Generation	47.3
Water Consumption	127.7
Annualized Construction	12.8
Total	1,105.5
Significance Threshold	3,000

Brodiaea Warehouse - South Coast Air Basin, Annual

Brodiaea Warehouse
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	99.98	1000sqft	2.30	99,978.00	0
Other Asphalt Surfaces	131.49	1000sqft	3.02	131,487.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Brodiaea Warehouse - South Coast Air Basin, Annual

Project Characteristics -

Land Use - Total disturbance area

Construction Phase - Grading: 6 days, Construction: 220 days, Paving: 10 days

Trips and VMT -

Grading - disturbance area

Vehicle Trips - 3.56 trips per 1K sf

Construction Off-road Equipment Mitigation -

Fleet Mix - vehicle mix provided by traffic consultant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	11,000.00	220.00
tblConstructionPhase	PhaseEndDate	12/11/2017	11/13/2017
tblConstructionPhase	PhaseStartDate	11/28/2017	1/10/2017
tblFleetMix	HHD	0.03	0.10
tblFleetMix	HHD	0.03	0.10
tblFleetMix	LDA	0.55	0.80
tblFleetMix	LDA	0.55	0.80
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Annual

tblFleetMix	LHD2	5.8780e-003	0.00
tblFleetMix	LHD2	5.8780e-003	0.00
tblFleetMix	MCY	4.6060e-003	0.00
tblFleetMix	MCY	4.6060e-003	0.00
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MH	1.0260e-003	0.00
tblFleetMix	MH	1.0260e-003	0.00
tblFleetMix	MHD	0.02	0.05
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tblFleetMix	UBUS	2.1000e-003	0.00
tblFleetMix	UBUS	2.1000e-003	0.00
tblGrading	AcresOfGrading	3.00	5.30
tblLandUse	BuildingSpaceSquareFeet	99,980.00	99,978.00
tblLandUse	LandUseSquareFeet	99,980.00	99,978.00
tblVehicleTrips	ST_TR	1.68	3.56
tblVehicleTrips	SU_TR	1.68	3.56
tblVehicleTrips	WD_TR	1.68	3.56

2.0 Emissions Summary

Brodiaea Warehouse - South Coast Air Basin, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.9290	3.1963	2.4552	4.3600e-003	0.0935	0.1923	0.2858	0.0298	0.1845	0.2143	0.0000	380.9108	380.9108	0.0650	0.0000	382.5353
Maximum	0.9290	3.1963	2.4552	4.3600e-003	0.0935	0.1923	0.2858	0.0298	0.1845	0.2143	0.0000	380.9108	380.9108	0.0650	0.0000	382.5353

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.9290	3.1963	2.4552	4.3600e-003	0.0807	0.1923	0.2730	0.0235	0.1845	0.2081	0.0000	380.9105	380.9105	0.0650	0.0000	382.5349
Maximum	0.9290	3.1963	2.4552	4.3600e-003	0.0807	0.1923	0.2730	0.0235	0.1845	0.2081	0.0000	380.9105	380.9105	0.0650	0.0000	382.5349

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	13.62	0.00	4.45	20.99	0.00	2.91	0.00	0.00	0.00	0.00	0.00	0.00

Brodiaea Warehouse - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2017	3-31-2017	1.1285	1.1285
2	4-1-2017	6-30-2017	1.1625	1.1625
3	7-1-2017	9-30-2017	1.1753	1.1753
		Highest	1.1753	1.1753

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003
Energy	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	87.7080	87.7080	3.3800e-003	8.6000e-004	88.0477
Mobile	0.1416	1.9293	1.9535	8.8500e-003	0.5847	0.0147	0.5994	0.1570	0.0139	0.1709	0.0000	828.7154	828.7154	0.0397	0.0000	829.7073
Waste						0.0000	0.0000		0.0000	0.0000	19.0771	0.0000	19.0771	1.1274	0.0000	47.2627
Water						0.0000	0.0000		0.0000	0.0000	7.3350	95.9211	103.2561	0.7573	0.0186	127.7348
Total	0.5591	1.9394	1.9649	8.9100e-003	0.5847	0.0154	0.6001	0.1570	0.0147	0.1716	26.4121	1,012.3503	1,038.7624	1.9278	0.0195	1,092.7586

Brodiaea Warehouse - South Coast Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003
Energy	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	87.7080	87.7080	3.3800e-003	8.6000e-004	88.0477
Mobile	0.1416	1.9293	1.9535	8.8500e-003	0.5847	0.0147	0.5994	0.1570	0.0139	0.1709	0.0000	828.7154	828.7154	0.0397	0.0000	829.7073
Waste						0.0000	0.0000		0.0000	0.0000	19.0771	0.0000	19.0771	1.1274	0.0000	47.2627
Water						0.0000	0.0000		0.0000	0.0000	7.3350	95.9211	103.2561	0.7573	0.0186	127.7348
Total	0.5591	1.9394	1.9649	8.9100e-003	0.5847	0.0154	0.6001	0.1570	0.0147	0.1716	26.4121	1,012.3503	1,038.7624	1.9278	0.0195	1,092.7586

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2017	1/9/2017	5	6	
2	Building Construction	Building Construction	1/10/2017	11/13/2017	5	220	
3	Architectural Coating	Architectural Coating	1/10/2017	11/13/2017	5	220	
4	Paving	Paving	11/14/2017	11/27/2017	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.3

Acres of Paving: 3.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 149,967; Non-Residential Outdoor: 49,989; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Brodiaea Warehouse - South Coast Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	42.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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3.2 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0209	0.0000	0.0209	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9600e-003	0.0785	0.0323	6.0000e-005		3.9000e-003	3.9000e-003		3.5800e-003	3.5800e-003	0.0000	5.7484	5.7484	1.7600e-003	0.0000	5.7925
Total	6.9600e-003	0.0785	0.0323	6.0000e-005	0.0209	3.9000e-003	0.0248	0.0102	3.5800e-003	0.0138	0.0000	5.7484	5.7484	1.7600e-003	0.0000	5.7925

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.6000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3252	0.3252	1.0000e-005	0.0000	0.3255
Total	1.8000e-004	1.5000e-004	1.6000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3252	0.3252	1.0000e-005	0.0000	0.3255

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3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1400e-003	0.0000	8.1400e-003	3.9900e-003	0.0000	3.9900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9600e-003	0.0785	0.0323	6.0000e-005		3.9000e-003	3.9000e-003		3.5800e-003	3.5800e-003	0.0000	5.7484	5.7484	1.7600e-003	0.0000	5.7924
Total	6.9600e-003	0.0785	0.0323	6.0000e-005	8.1400e-003	3.9000e-003	0.0120	3.9900e-003	3.5800e-003	7.5700e-003	0.0000	5.7484	5.7484	1.7600e-003	0.0000	5.7924

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.6000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3252	0.3252	1.0000e-005	0.0000	0.3255
Total	1.8000e-004	1.5000e-004	1.6000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3252	0.3252	1.0000e-005	0.0000	0.3255

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3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3676	2.5332	1.7941	2.7500e-003		0.1617	0.1617		0.1548	0.1548	0.0000	234.2699	234.2699	0.0522	0.0000	235.5742
Total	0.3676	2.5332	1.7941	2.7500e-003		0.1617	0.1617		0.1548	0.1548	0.0000	234.2699	234.2699	0.0522	0.0000	235.5742

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7700e-003	0.2329	0.0634	4.5000e-004	0.0111	1.9900e-003	0.0131	3.2000e-003	1.9000e-003	5.1000e-003	0.0000	43.8818	43.8818	3.3100e-003	0.0000	43.9647
Worker	0.0276	0.0231	0.2463	5.6000e-004	0.0507	4.3000e-004	0.0511	0.0135	4.0000e-004	0.0139	0.0000	50.0740	50.0740	1.9000e-003	0.0000	50.1215
Total	0.0363	0.2560	0.3097	1.0100e-003	0.0618	2.4200e-003	0.0642	0.0167	2.3000e-003	0.0190	0.0000	93.9558	93.9558	5.2100e-003	0.0000	94.0862

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3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3676	2.5332	1.7941	2.7500e-003		0.1617	0.1617		0.1548	0.1548	0.0000	234.2696	234.2696	0.0522	0.0000	235.5740
Total	0.3676	2.5332	1.7941	2.7500e-003		0.1617	0.1617		0.1548	0.1548	0.0000	234.2696	234.2696	0.0522	0.0000	235.5740

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7700e-003	0.2329	0.0634	4.5000e-004	0.0111	1.9900e-003	0.0131	3.2000e-003	1.9000e-003	5.1000e-003	0.0000	43.8818	43.8818	3.3100e-003	0.0000	43.9647
Worker	0.0276	0.0231	0.2463	5.6000e-004	0.0507	4.3000e-004	0.0511	0.0135	4.0000e-004	0.0139	0.0000	50.0740	50.0740	1.9000e-003	0.0000	50.1215
Total	0.0363	0.2560	0.3097	1.0100e-003	0.0618	2.4200e-003	0.0642	0.0167	2.3000e-003	0.0190	0.0000	93.9558	93.9558	5.2100e-003	0.0000	94.0862

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3.4 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4634					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0366	0.2404	0.2055	3.3000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	28.0858	28.0858	2.9700e-003	0.0000	28.1599
Total	0.5000	0.2404	0.2055	3.3000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	28.0858	28.0858	2.9700e-003	0.0000	28.1599

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	4.4000e-003	0.0469	1.1000e-004	9.6500e-003	8.0000e-005	9.7400e-003	2.5600e-003	8.0000e-005	2.6400e-003	0.0000	9.5379	9.5379	3.6000e-004	0.0000	9.5470
Total	5.2500e-003	4.4000e-003	0.0469	1.1000e-004	9.6500e-003	8.0000e-005	9.7400e-003	2.5600e-003	8.0000e-005	2.6400e-003	0.0000	9.5379	9.5379	3.6000e-004	0.0000	9.5470

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3.4 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4634					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0366	0.2404	0.2055	3.3000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	28.0858	28.0858	2.9700e-003	0.0000	28.1599
Total	0.5000	0.2404	0.2055	3.3000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	28.0858	28.0858	2.9700e-003	0.0000	28.1599

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	4.4000e-003	0.0469	1.1000e-004	9.6500e-003	8.0000e-005	9.7400e-003	2.5600e-003	8.0000e-005	2.6400e-003	0.0000	9.5379	9.5379	3.6000e-004	0.0000	9.5470
Total	5.2500e-003	4.4000e-003	0.0469	1.1000e-004	9.6500e-003	8.0000e-005	9.7400e-003	2.5600e-003	8.0000e-005	2.6400e-003	0.0000	9.5379	9.5379	3.6000e-004	0.0000	9.5470

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3.5 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2900e-003	0.0834	0.0611	9.0000e-005		5.1700e-003	5.1700e-003		4.7600e-003	4.7600e-003	0.0000	8.1750	8.1750	2.4600e-003	0.0000	8.2364
Paving	3.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0123	0.0834	0.0611	9.0000e-005		5.1700e-003	5.1700e-003		4.7600e-003	4.7600e-003	0.0000	8.1750	8.1750	2.4600e-003	0.0000	8.2364

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.7000e-004	4.0000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8129	0.8129	3.0000e-005	0.0000	0.8137
Total	4.5000e-004	3.7000e-004	4.0000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8129	0.8129	3.0000e-005	0.0000	0.8137

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3.5 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2900e-003	0.0834	0.0611	9.0000e-005		5.1700e-003	5.1700e-003		4.7600e-003	4.7600e-003	0.0000	8.1749	8.1749	2.4600e-003	0.0000	8.2364
Paving	3.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0123	0.0834	0.0611	9.0000e-005		5.1700e-003	5.1700e-003		4.7600e-003	4.7600e-003	0.0000	8.1749	8.1749	2.4600e-003	0.0000	8.2364

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.7000e-004	4.0000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8129	0.8129	3.0000e-005	0.0000	0.8137
Total	4.5000e-004	3.7000e-004	4.0000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8129	0.8129	3.0000e-005	0.0000	0.8137

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1416	1.9293	1.9535	8.8500e-003	0.5847	0.0147	0.5994	0.1570	0.0139	0.1709	0.0000	828.7154	828.7154	0.0397	0.0000	829.7073
Unmitigated	0.1416	1.9293	1.9535	8.8500e-003	0.5847	0.0147	0.5994	0.1570	0.0139	0.1709	0.0000	828.7154	828.7154	0.0397	0.0000	829.7073

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	355.93	355.93	355.93	1,525,410	1,525,410
Total	355.93	355.93	355.93	1,525,410	1,525,410

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Brodiaea Warehouse - South Coast Air Basin, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.803000	0.000000	0.000000	0.052000	0.000000	0.000000	0.045000	0.100000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.803000	0.000000	0.000000	0.052000	0.000000	0.000000	0.045000	0.100000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.7709	76.7709	3.1700e-003	6.6000e-004	77.0455
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.7709	76.7709	3.1700e-003	6.6000e-004	77.0455
NaturalGas Mitigated	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022
NaturalGas Unmitigated	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022

Brodiaea Warehouse - South Coast Air Basin, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	204955	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022
Total		1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	204955	1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022
Total		1.1100e-003	0.0101	8.4400e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	10.9372	10.9372	2.1000e-004	2.0000e-004	11.0022

Brodiaea Warehouse - South Coast Air Basin, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	240947	76.7709	3.1700e-003	6.6000e-004	77.0455
Total		76.7709	3.1700e-003	6.6000e-004	77.0455

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	240947	76.7709	3.1700e-003	6.6000e-004	77.0455
Total		76.7709	3.1700e-003	6.6000e-004	77.0455

6.0 Area Detail

6.1 Mitigation Measures Area

Brodiaea Warehouse - South Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003
Unmitigated	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-004	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003
Total	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003

Brodiaea Warehouse - South Coast Air Basin, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-004	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003
Total	0.4164	3.0000e-005	2.9900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7400e-003	5.7400e-003	2.0000e-005	0.0000	6.1400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Brodiaea Warehouse - South Coast Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	103.2561	0.7573	0.0186	127.7348
Unmitigated	103.2561	0.7573	0.0186	127.7348

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	23.1204 / 0	103.2561	0.7573	0.0186	127.7348
Total		103.2561	0.7573	0.0186	127.7348

Brodiaea Warehouse - South Coast Air Basin, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	23.1204 / 0	103.2561	0.7573	0.0186	127.7348
Total		103.2561	0.7573	0.0186	127.7348

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.0771	1.1274	0.0000	47.2627
Unmitigated	19.0771	1.1274	0.0000	47.2627

Brodiaea Warehouse - South Coast Air Basin, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	93.98	19.0771	1.1274	0.0000	47.2627
Total		19.0771	1.1274	0.0000	47.2627

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	93.98	19.0771	1.1274	0.0000	47.2627
Total		19.0771	1.1274	0.0000	47.2627

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Brodiaea Warehouse - South Coast Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Brodiaea Warehouse - South Coast Air Basin, Summer

Brodiaea Warehouse
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	99.98	1000sqft	2.30	99,978.00	0
Other Asphalt Surfaces	131.49	1000sqft	3.02	131,487.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Summer

Project Characteristics -

Land Use - Total disturbance area

Construction Phase - Grading: 6 days, Construction: 220 days, Paving: 10 days

Trips and VMT -

Grading - disturbance area

Vehicle Trips - 3.56 trips per 1K sf

Construction Off-road Equipment Mitigation -

Fleet Mix - vehicle mix provided by traffic consultant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	11,000.00	220.00
tblConstructionPhase	PhaseEndDate	12/11/2017	11/13/2017
tblConstructionPhase	PhaseStartDate	11/28/2017	1/10/2017
tblFleetMix	HHD	0.03	0.10
tblFleetMix	HHD	0.03	0.10
tblFleetMix	LDA	0.55	0.80
tblFleetMix	LDA	0.55	0.80
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00

Brodiaea Warehouse - South Coast Air Basin, Summer

tblFleetMix	LHD2	5.8780e-003	0.00
tblFleetMix	LHD2	5.8780e-003	0.00
tblFleetMix	MCY	4.6060e-003	0.00
tblFleetMix	MCY	4.6060e-003	0.00
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MH	1.0260e-003	0.00
tblFleetMix	MH	1.0260e-003	0.00
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.9510e-003	0.00
tblFleetMix	OBUS	1.9510e-003	0.00
tblFleetMix	SBUS	7.0100e-004	0.00
tblFleetMix	SBUS	7.0100e-004	0.00
tblFleetMix	UBUS	2.1000e-003	0.00
tblFleetMix	UBUS	2.1000e-003	0.00
tblGrading	AcresOfGrading	3.00	5.30
tblLandUse	BuildingSpaceSquareFeet	99,980.00	99,978.00
tblLandUse	LandUseSquareFeet	99,980.00	99,978.00
tblVehicleTrips	ST_TR	1.68	3.56
tblVehicleTrips	SU_TR	1.68	3.56
tblVehicleTrips	WD_TR	1.68	3.56

2.0 Emissions Summary

Brodiaea Warehouse - South Coast Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.2654	27.5051	21.5672	0.0385	7.0706	1.6656	8.3701	3.4410	1.6016	4.6365	0.0000	3,700.4806	3,700.4806	0.6519	0.0000	3,715.6915
Maximum	8.2654	27.5051	21.5672	0.0385	7.0706	1.6656	8.3701	3.4410	1.6016	4.6365	0.0000	3,700.4806	3,700.4806	0.6519	0.0000	3,715.6915

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.2654	27.5051	21.5672	0.0385	2.8257	1.6656	4.1252	1.3601	1.6016	2.5556	0.0000	3,700.4806	3,700.4806	0.6519	0.0000	3,715.6915
Maximum	8.2654	27.5051	21.5672	0.0385	2.8257	1.6656	4.1252	1.3601	1.6016	2.5556	0.0000	3,700.4806	3,700.4806	0.6519	0.0000	3,715.6915

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	60.04	0.00	50.72	60.47	0.00	44.88	0.00	0.00	0.00	0.00	0.00	0.00

Brodiaea Warehouse - South Coast Air Basin, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2823	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541
Energy	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538
Mobile	0.8149	10.2654	11.2511	0.0502	3.2715	0.0802	3.3517	0.8768	0.0761	0.9529		5,178.7706	5,178.7706	0.2398		5,184.7656
Total	3.1033	10.3207	11.3213	0.0506	3.2715	0.0845	3.3560	0.8768	0.0804	0.9572		5,244.8825	5,244.8825	0.2412	1.2100e-003	5,251.2736

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2823	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541
Energy	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538
Mobile	0.8149	10.2654	11.2511	0.0502	3.2715	0.0802	3.3517	0.8768	0.0761	0.9529		5,178.7706	5,178.7706	0.2398		5,184.7656
Total	3.1033	10.3207	11.3213	0.0506	3.2715	0.0845	3.3560	0.8768	0.0804	0.9572		5,244.8825	5,244.8825	0.2412	1.2100e-003	5,251.2736

Brodiaea Warehouse - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2017	1/9/2017	5	6	
2	Building Construction	Building Construction	1/10/2017	11/13/2017	5	220	
3	Architectural Coating	Architectural Coating	1/10/2017	11/13/2017	5	220	
4	Paving	Paving	11/14/2017	11/27/2017	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.3

Acres of Paving: 3.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 149,967; Non-Residential Outdoor: 49,989; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	42.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Brodiaea Warehouse - South Coast Air Basin, Summer

3.2 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9589	0.0000	6.9589	3.4114	0.0000	3.4114			0.0000			0.0000
Off-Road	2.3212	26.1643	10.7753	0.0206		1.2985	1.2985		1.1947	1.1947		2,112.1822	2,112.1822	0.6472		2,128.3614
Total	2.3212	26.1643	10.7753	0.0206	6.9589	1.2985	8.2574	3.4114	1.1947	4.6060		2,112.1822	2,112.1822	0.6472		2,128.3614

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0442	0.5682	1.2600e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		125.3679	125.3679	4.7300e-003		125.4862
Total	0.0601	0.0442	0.5682	1.2600e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		125.3679	125.3679	4.7300e-003		125.4862

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Summer

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7140	0.0000	2.7140	1.3304	0.0000	1.3304			0.0000			0.0000
Off-Road	2.3212	26.1643	10.7753	0.0206		1.2985	1.2985		1.1947	1.1947	0.0000	2,112.1822	2,112.1822	0.6472		2,128.3614
Total	2.3212	26.1643	10.7753	0.0206	2.7140	1.2985	4.0125	1.3304	1.1947	2.5251	0.0000	2,112.1822	2,112.1822	0.6472		2,128.3614

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0442	0.5682	1.2600e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		125.3679	125.3679	4.7300e-003		125.4862
Total	0.0601	0.0442	0.5682	1.2600e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		125.3679	125.3679	4.7300e-003		125.4862

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Summer

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3418	23.0287	16.3102	0.0250		1.4697	1.4697		1.4068	1.4068		2,347.6211	2,347.6211	0.5228		2,360.6922
Total	3.3418	23.0287	16.3102	0.0250		1.4697	1.4697		1.4068	1.4068		2,347.6211	2,347.6211	0.5228		2,360.6922

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0783	2.0703	0.5478	4.1700e-003	0.1024	0.0179	0.1203	0.0295	0.0172	0.0466		444.5720	444.5720	0.0322		445.3773
Worker	0.2522	0.1857	2.3866	5.3000e-003	0.4695	3.9000e-003	0.4734	0.1245	3.5900e-003	0.1281		526.5452	526.5452	0.0199		527.0422
Total	0.3305	2.2560	2.9344	9.4700e-003	0.5718	0.0218	0.5937	0.1540	0.0208	0.1747		971.1172	971.1172	0.0521		972.4195

Brodiaea Warehouse - South Coast Air Basin, Summer

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3418	23.0287	16.3102	0.0250		1.4697	1.4697		1.4068	1.4068	0.0000	2,347.6211	2,347.6211	0.5228		2,360.6922
Total	3.3418	23.0287	16.3102	0.0250		1.4697	1.4697		1.4068	1.4068	0.0000	2,347.6211	2,347.6211	0.5228		2,360.6922

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0783	2.0703	0.5478	4.1700e-003	0.1024	0.0179	0.1203	0.0295	0.0172	0.0466		444.5720	444.5720	0.0322		445.3773
Worker	0.2522	0.1857	2.3866	5.3000e-003	0.4695	3.9000e-003	0.4734	0.1245	3.5900e-003	0.1281		526.5452	526.5452	0.0199		527.0422
Total	0.3305	2.2560	2.9344	9.4700e-003	0.5718	0.0218	0.5937	0.1540	0.0208	0.1747		971.1172	971.1172	0.0521		972.4195

Brodiaea Warehouse - South Coast Air Basin, Summer

3.4 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.2127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.1909
Total	4.5450	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.1909

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0354	0.4546	1.0100e-003	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		100.2943	100.2943	3.7900e-003		100.3890
Total	0.0480	0.0354	0.4546	1.0100e-003	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		100.2943	100.2943	3.7900e-003		100.3890

Brodiaea Warehouse - South Coast Air Basin, Summer

3.4 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.2127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.1909
Total	4.5450	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.1909

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0480	0.0354	0.4546	1.0100e-003	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		100.2943	100.2943	3.7900e-003		100.3890
Total	0.0480	0.0354	0.4546	1.0100e-003	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		100.2943	100.2943	3.7900e-003		100.3890

Brodiaea Warehouse - South Coast Air Basin, Summer

3.5 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6589	16.6726	12.2090	0.0178		1.0334	1.0334		0.9519	0.9519		1,802.268 2	1,802.268 2	0.5420		1,815.817 7
Paving	0.7912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4501	16.6726	12.2090	0.0178		1.0334	1.0334		0.9519	0.9519		1,802.268 2	1,802.268 2	0.5420		1,815.817 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0901	0.0663	0.8524	1.8900e-003	0.1677	1.3900e-003	0.1691	0.0445	1.2800e-003	0.0458		188.0518	188.0518	7.1000e-003		188.2294
Total	0.0901	0.0663	0.8524	1.8900e-003	0.1677	1.3900e-003	0.1691	0.0445	1.2800e-003	0.0458		188.0518	188.0518	7.1000e-003		188.2294

Brodiaea Warehouse - South Coast Air Basin, Summer

3.5 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6589	16.6726	12.2090	0.0178		1.0334	1.0334		0.9519	0.9519	0.0000	1,802.268 2	1,802.268 2	0.5420		1,815.817 7
Paving	0.7912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4501	16.6726	12.2090	0.0178		1.0334	1.0334		0.9519	0.9519	0.0000	1,802.268 2	1,802.268 2	0.5420		1,815.817 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0901	0.0663	0.8524	1.8900e-003	0.1677	1.3900e-003	0.1691	0.0445	1.2800e-003	0.0458		188.0518	188.0518	7.1000e-003		188.2294
Total	0.0901	0.0663	0.8524	1.8900e-003	0.1677	1.3900e-003	0.1691	0.0445	1.2800e-003	0.0458		188.0518	188.0518	7.1000e-003		188.2294

4.0 Operational Detail - Mobile

Brodiaea Warehouse - South Coast Air Basin, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8149	10.2654	11.2511	0.0502	3.2715	0.0802	3.3517	0.8768	0.0761	0.9529		5,178.7706	5,178.7706	0.2398		5,184.7656
Unmitigated	0.8149	10.2654	11.2511	0.0502	3.2715	0.0802	3.3517	0.8768	0.0761	0.9529		5,178.7706	5,178.7706	0.2398		5,184.7656

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	355.93	355.93	355.93	1,525,410	1,525,410
Total	355.93	355.93	355.93	1,525,410	1,525,410

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Attachment: Air Pollutant & Greenhouse Gas Emissions Modeling Sheets (2615 : PEN16-0100 Plot Plan /

Brodiaea Warehouse - South Coast Air Basin, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.803000	0.000000	0.000000	0.052000	0.000000	0.000000	0.045000	0.100000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.803000	0.000000	0.000000	0.052000	0.000000	0.000000	0.045000	0.100000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538
NaturalGas Unmitigated	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538

Brodiaea Warehouse - South Coast Air Basin, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	561.52	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538
Total		6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.56152	6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538
Total		6.0600e-003	0.0551	0.0462	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003		66.0612	66.0612	1.2700e-003	1.2100e-003	66.4538

6.0 Area Detail

6.1 Mitigation Measures Area

Brodiaea Warehouse - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2823	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541
Unmitigated	2.2823	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2900e-003	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541
Total	2.2824	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541

Brodiaea Warehouse - South Coast Air Basin, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2900e-003	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541
Total	2.2824	2.2000e-004	0.0240	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0507	0.0507	1.4000e-004		0.0541

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Brodiaea Warehouse - South Coast Air Basin, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation



Blackhawk Environmental, Inc.

1720 Midvale Drive
San Diego, CA 92105

Phone: 619.972.7932

Phone: 619.972.8714

www.blackhawkenv.com

BRODIAEA PROJECT

(APN 297-170-078-5)

WESTERN RIVERSIDE MSHCP HABITAT ASSESSMENT REPORT

CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

EPD Solutions
2030 Main Street, Suite 1200
Irvine, CA 92614
Contact: Jeremy Krout
Senior Planner
Telephone: 949.794.1181
E-mail: Jeremy@epdsolutions.com

Prepared by:

Blackhawk Environmental, Inc.
1720 Midvale Drive
San Diego, CA 92105
Contact: Kris Alberts
Principal Biologist
Telephone: 619.972.8714
E-mail: kris@blackhawkenv.com

October 19, 2016

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EXECUTIVE SUMMARY

Blackhawk Environmental (Blackhawk) conducted a literature review, field reconnaissance survey, and biological assessment of the proposed Brodiaea Project site (Project) to assess existing site conditions, as well as assess the potential for sensitive species or habitats to occur within the Project site. The Project is an approximately 6.71-acre site proposed in the City of Moreno Valley, Riverside County, California. The Project site is located on Assessor's Parcel Numbers (APN) 297-170-078-5. The Project is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The Project is located within the Reche Canyon/Badlands Area Plan. The site is best characterized as an unimproved industrial land use type. The Project is located within an area necessitating surveys for burrowing owl (*Athene cunicularia*).

The literature review identified two sensitive wildlife species and no sensitive plant species with the potential to occur within the Project site and immediately surrounding areas for evaluation during the habitat assessment. As part of the assessment, suitable habitat for burrowing owl was also evaluated. Of the two wildlife species, only burrowing owl was determined to have the potential to occur. No sensitive biological species were observed on or adjacent to the Project site.

Furthermore, the Project site and surrounding areas support limited suitable nesting substrates for various general migratory bird and raptor species common to the area. Take authorization for migratory bird and raptor species is not provided by the MSHCP. The MSHCP functionally covers the remaining species identified with the potential to occur, as well as impacts to habitat. No other sensitive resources or habitats are present or are expected to occur. No significant adverse impacts to sensitive biological resources of the region are anticipated with implementation of Project mitigation contained herein.

The Project supports suitable habitat for burrowing owl and is located within a designated area requiring surveys for burrowing owl. For MSHCP consistency, additional surveys will be required pursuant to *Step II, Part B: Focused Burrowing Owl Surveys* of the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (2006).

No potentially jurisdictional waterways or drainage features were found on the Project site.

1.0 INTRODUCTION

Blackhawk was contracted under EPD Solutions to conduct environmental surveys and provide a Habitat Assessment Report (HAR) for the Brodiaea Project, located on approximately 6.71 acres of previously mass graded, undeveloped land in the City of Moreno Valley, Riverside County, California.

The purpose of this survey effort and HAR is to identify and document sensitive biological resources potentially occurring within the Project site and surrounding areas. The Project site is located in the Reche Canyon/Badlands Area Plan; however, the Project is not located within a MSHCP Cell Group or MSHCP Criteria Cell(s). The survey effort focused on documentation of existing site conditions, such as soils, topography, vegetation communities, riverine/riparian habitats, vernal pools and potentially jurisdictional aquatic resources as required for review under the MSHCP. Specifically, the assessment was conducted to determine if habitat was present for species identified in the Conservation Summary Report Generator, including burrowing owl. The assessment did not include a formal jurisdictional or wetland delineation or aquatic resources mapping effort.

1.1 Project Description

The Brodiaea Project proponent proposes to construct a 99,978 square foot industrial warehouse facility on a 6.71-acre site in Moreno Valley. The Project site is identified as APN 297-170-078-5 and is zoned BP – Business Park. The Project consists of one single-story concrete tilt up building, 91 parking stalls, five bicycle parking spaces, 17 trailer parking docks, 27 trailer parking spaces and 60,087 square feet of landscaping surrounding the facility.

The Project site is triangular in shape and is bounded to the north by Brodiaea Avenue, with vacant land beyond; to the west and south by warehouses, a retention basin and related uses; and to the east by a drainage channel (Heacock Channel) and Heacock Street, with single-family residences beyond.

The site would have two unsignalized driveways from Brodiaea Drive.

2.0 REGULATORY SETTING

The proposed Project is subject to a host of state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species that are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

2.1 State and/or Federally Listed Plant and Wildlife Species

2.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

2.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the United States Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms

“harm” and “harass” to include certain types of habitat modification that result in injury to, or death of species as forms of “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

2.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

2.2 California Environmental Quality Act

Shortly after the United States federal government passed the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA) was passed in 1970 to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts. CEQA makes environmental protection a mandatory part of every California state and local agency's decision making process.

2.2.1 Thresholds of Significance

Environmental impacts relative to biological resources are assessed using impact significance

threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

“Prevent the elimination of fish or wildlife species due to man’s activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities...”

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Attachment G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

“The project has the potential to: substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, ...”

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

2.2.2 Criteria for Determining Significance Pursuant to CEQA

Attachment G of the 1998 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife*

species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2.2.3 CEQA Guidelines Section 15380

The CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW assigns California Rare Plant Ranks (CRPR) to species categorized as List 1A, 1B, or 2 of the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 or 4.

2.3 Special Status Species Designations

2.3.1 Federally Designated Special-Status Species

Some years ago, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS. Additionally, the USFWS *Birds of Conservation Concern 2008* report was published to identify the migratory and non-migratory bird species (beyond those already federally listed) that represent the highest conservation priorities for USFWS.

For this report, the following acronyms are used for federal special-status species:

- **FE:** Federally listed as Endangered
- **FT:** Federally listed as Threatened
- **FPE:** Federally proposed for listing as Endangered
- **FPT:** Federally proposed for listing as Threatened
- **FC:** Federal Candidate species (Former Category 1 candidates)
- **BCC:** USFWS Birds of Conservation Concern

2.3.2 State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (FP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern (SSC) are species designated as vulnerable to

extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Database (CNDDDB) project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites. For this report the following acronyms are used for State special-status species:

- **SE:** State-listed as Endangered
- **ST:** State-listed as Threatened
- **SCE:** State candidate for listing as Endangered
- **SCT:** State candidate for listing as Threatened
- **FP:** State Fully Protected
- **SSC:** Species of Special Concern

2.3.3 California Rare Plant Rank

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The California Native Plant Society's *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five categories. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (Tibor 2001). The list serves as the candidate list for listing as threatened and endangered by CDFW.

2.4 Additional Applicable State and Federal Regulations

Each of the following regulations bears some applicability toward assessing the natural resources of the Project Site and any effects that construction and long-term operations and maintenance activities may have upon such resources. These are included for informational and referential purposes only.

2.4.1 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (PL 95-616; 16 USC §§ 668 et seq.) provides for protection of the bald and golden eagles by prohibiting taking, possession, and commerce in the birds.

2.4.2 Clean Water Act

The Clean Water Act (CWA) regulates the discharge of pollutants to waters of the United States in order to protect water quality and the beneficial uses of these waters. Through a permit application process, CWA Section 404 regulates dredge and fill discharges to waters of the United States.

2.4.3 Fish and Wildlife Conservation Act of 1980

The Fish and Wildlife Conservation Act of 1980 (PL 96-366; 16 USC §§2901 et seq.) provides for conservation, protection, restoration and propagation of certain species, including migratory birds threatened with extinction.

2.4.4 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (PL 65-186, as amended; 16 USC §§ 703 et seq.) protects most birds, whether or not they migrate. Birds, their nests, eggs, parts, or products may not be killed or possessed. Game birds are listed and protected except where specific seasons, bag limits, and other features govern their hunting. Exceptions are made for some agricultural pests, which require a USFWS permit (yellow-headed, red-winged, bi-colored red-winged, tri-colored red-winged, Rusty and Brewer's blackbirds, cowbirds, all grackles, crows and magpies). Some other birds that injure crops in California may be taken under the authority of the County Agricultural Commissioner (meadowlarks, horned larks, golden-crowned sparrows, white- and other crowned sparrows, goldfinches, house finches, acorn woodpeckers, Lewis' woodpeckers and flickers). Permits may be granted for various non-commercial activities involving migratory birds and some commercial activities involving captive-bred migratory birds.

2.4.5 California Fish & Game Codes 3500 Series

California Fish & Game Codes 3500, 3503, 3503.5, 3505, 3511 and 3513 are State regulations that cover resident and non-resident game birds, protected bird nests, protected raptor nests, egrets, ospreys, Fully Protected bird species, and take considerations for Migratory Bird Treaty Act birds.

- **Code 3500:** "(a) Resident game birds are as follows:
 - (1) Doves of the genus *Streptopelia*, including, but not limited to, spotted doves, ringed turtledoves, and Eurasian collared-doves.
 - (2) California quail and varieties thereof.
 - (3) Gambel's or desert quail.
 - (4) Mountain quail and varieties thereof.
 - (5) Sooty or blue grouse and varieties thereof.
 - (6) Ruffed grouse.
 - (7) Sage hens or sage grouse.
 - (8) Hungarian partridges.
 - (9) Red-legged partridges including the chukar and other varieties.
 - (10) Ring-necked pheasants and varieties thereof.
 - (11) Wild turkeys of the order Galliformes.
 (b) Migratory game birds are as follows:
 - (1) Ducks and geese.
 - (2) Coots and gallinules.
 - (3) Jacksnipe.
 - (4) Western mourning doves.
 - (5) White-winged doves.
 - (6) Band-tailed pigeons.
 (c) References in this code to "game birds" means both resident game birds and migratory game birds."
- **Code 3503:** "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."
- **Code 3503.5:** "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant

thereto."

- **Code 3505:** "It is unlawful to take, sell, or purchase any egret or egret, osprey, bird of paradise, goura, numidi, or any part of such a bird."
- **Code 3511:** "(a) (1) Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected bird, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and relocation of those species pursuant to a permit for the protection of livestock. Prior to authorizing the take of any of those species, the department shall make an effort to notify all affected and interested parties to solicit information and comments on the proposed authorization. The notification shall be published in the California Regulatory Notice Register and be made available to each person who has notified the department, in writing, of his or her interest in fully protected species and who has provided an e-mail address, if available, or postal address to the department. Affected and interested parties shall have 30 days after notification is published in the California Regulatory Notice Register to provide any relevant information and comments on the proposed authorization.
 - (2) As used in this subdivision, "scientific research" does not include any actions taken as part of specified mitigation for a project, as defined in Section 21065 of the Public Resources Code.
 - (3) Legally imported fully protected birds or parts thereof may be possessed under a permit issued by the department.
 - (b) The following are fully protected birds:
 - (1) American peregrine falcon (*Falco peregrinus anatum*).
 - (2) Brown pelican.
 - (3) California black rail (*Laterallus jamaicensis coturniculus*).
 - (4) California clapper rail (*Rallus longirostris obsoletus*).
 - (5) California condor (*Gymnogyps californianus*).
 - (6) California least tern (*Sterna albifrons browni*).
 - (7) Golden eagle.
 - (8) Greater sandhill crane (*Grus canadensis tabida*).
 - (9) Light-footed clapper rail (*Rallus longirostris levipes*).
 - (10) Southern bald eagle (*Haliaeetus leucocephalus leucocephalus*).
 - (11) Trumpeter swan (*Cygnus buccinator*).
 - (12) White-tailed kite (*Elanus leucurus*).
 - (13) Yuma clapper rail (*Rallus longirostris yumanensis*)."
- **Code 3513:** "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

2.4.6 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the California Fish and Game

Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and/or with proper notification to the CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.4.7 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code §§13000 et seq.) is the State's primary water law. It gives the State Water Resources Control Board (SWRCB) and the nine regional water quality control boards substantial authority to regulate water use of surface and sub-surface waters.

2.5 Local Regulations

2.5.1 Western Riverside Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County.

The MSHCP will serve as a HCP pursuant to Section 10(a)(1)(B) of the FESA, as well as a NCCP under the NCCP Act of 2001. The MSHCP will be used to allow the participating jurisdictions to authorize "take" of plant and wildlife species identified within the MSHCP area. USFWS and CDFW (Wildlife Agencies) have authority to regulate the take of threatened, endangered, and rare species. Under the MSHCP, the Wildlife Agencies will grant "take authorization" for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP Conservation Area, in exchange for the assembly and management of a coordinated MSHCP Area. The MSHCP is designed to provide mitigation compliance under the FESA, CESA, CEQA, and National Environmental Protection Act (NEPA) with payment of a development mitigation fee to the appropriate local jurisdiction and completion of requisite habitat assessments/focused surveys for projects within those jurisdictions.

3.0 METHODS

Methods described below focused on determination of potential for occurrence of sensitive plant and wildlife species. Specific consideration was given for species not covered or functionally covered under the MSHCP. Species are considered to be sensitive, and are therefore subject to analysis in this section, if they meet one or more of the following criteria:

- Plant and animal species listed as endangered (FE), threatened (FT), or candidates (FPE or FPT) for listing under the Federal Endangered Species Act (FESA);
- Plant and animal species listed as endangered (SE), threatened (ST), or candidates (SPE or SPT) for listing under the California Endangered Species Act (CESA);
- Animals designated as Fully Protected Species (FP), as defined in California Fish and Game Code Sections 3511, 4700, 5050, and 5515;
- Animal species designated as Species of Special Concern (SSC) by the CDFW;
- Bat species designated as High Priority (H) by the Western Bat Working Group;
- Plants that are state-listed as Rare¹; or
- Plant species ranked by the California Native Plant Society (CNPS) as having a California Rare Plant Rank (CRPR) of 1 or 2.²

Sensitive natural communities are communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain sensitive species or their habitats. For purposes of this assessment, sensitive natural communities are considered to be any of the following:

- Vegetation communities listed CNDDDB;
- Communities listed in the Natural Communities List with a rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable); or

3.1 Literature Review

The Riverside County Land Information System Report Generator and Riverside County Integrated Project (RCIP) Transportation and Land Management (TLMA) conservation report generator were searched for information regarding sensitive habitat types and potential survey requirements applicable to the Project site.

Blackhawk conducted an additional database records search (October 2016) centered on the US Geological Service (USGS) 7.5-minute Sunnymead quadrangle for APN 297-170-078-5. The CDFW California Natural Diversity Database (CNDDDB) (CDFW 2016), the US Fish & Wildlife Service (USFWS) Species Occurrence Database (USFWS 2016), and the California Native Plant Society's (CNPS) Electronic Inventory (EI) of Rare and Endangered Vascular Plants of California (CNPS 2016) were reviewed for the quadrangles containing and surrounding the Project; a 1-mile radius surrounding the Project was reviewed. The CNDDDB contains records of reported occurrences of federal- and state-listed species, proposed endangered or threatened species, Federal Birds of Conservation Concern (BCC), California Species of Special Concern (SSC), and otherwise sensitive species or communities

¹ Plants that were previously state listed as "Rare" have been re-designated as state threatened.

² Under the CEQA review process, only CRPR 1 and 2 species are considered, as these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to List 3 and 4 species do not meet CEQA's definition of "rare" or "endangered."

that may occur within or in the vicinity of a Project. The United States Department of Agriculture (USDA) Web Soil Survey was used to review soil types documented to occur within the Project site. This database and literature review was used to provide details on species that have a potential to occur within the proposed Project area and surrounding areas prior to conducting habitat assessment or focused survey efforts.

Utilizing the background data described above, Blackhawk Environmental biologists Kris Alberts and Seth Reimers conducted a field survey of the Project site on October 14, 2016 to assess the 6.71-acre Project site for existing conditions and the capacity to potentially harbor sensitive biological resources identified in the literature review (target species). Representative photos of the Project site, habitats and existing site conditions are included in Attachment B.

Following the habitat assessment, potentials for sensitive species to occur were evaluated based on proximity, connectivity, recency and abundance of known occurrences, availability of suitable habitats, historic distributions of the species, and existing site conditions. Potentials for occurrence were generally evaluated based on the following criteria:

- **Present** – The species was observed within the Project area during the survey effort.
- **High** – Historic records indicate that the species has been known to occur within the vicinity of the Project (1 mile), and suitable habitat occurs onsite.
- **Moderate** – Historic records indicate that the species has been known to occur within the vicinity of the Project, but low quality suitable habitat occurs onsite, or; no historic records occur within the Project, but the Project occurs within the historic range of the species, and moderate to high quality habitat occurs.
- **Low** – Historic records indicate that the species has not been known to occupy the immediate vicinity of the Project, and low quality habitat for the species exists onsite.
- **Absent** – The species is restricted to habitats not occurring within the Project or is considered extirpated from the Project area.

3.2 Habitat Assessment

Blackhawk Environmental Biologists Kris Alberts and Seth Reimers conducted the habitat assessment on October 14, 2016. Blackhawk Environmental biologists performed a pedestrian survey of the entire 6.71-acre Project area and surrounding 150-meter burrowing owl survey buffer (Survey Area). The survey was conducted between 10:00 and 11:24 A.M. Survey conditions are included in Table 1.

Table 1. Habitat Assessment Conditions

Biologist(s)	Date	Time	Air Temperature (°F)	Wind Speed (mph)	Cloud Cover (%)	Precipitation
Seth Reimers, Kris Alberts	10/14/2016	1000-1124	69-74	1-3	0	None

Methods included belt and meandering transect spaced approximately 15 meters apart. Where appropriate, biologists paused at select vantage points to provide full visual coverage of the Project site and Survey Area. During the field survey, all plant and wildlife species observed or detected were recorded in field notebooks. Binoculars were used as needed to identify wildlife species. Plant species

observed were identified to species or subspecies level when feasible according to the nomenclature in The Jepson Manual: Vascular Plants of California Edition 2 (2012). Vegetation communities were described according to dominant plant species and annotated on a high-resolution aerial photograph of the Project site. The habitat assessment did not include focused or protocol level surveys for any sensitive plant or wildlife species.

3.3 Jurisdictional Water Bodies and Riverine/Riparian Habitats

Aerial photos of the Project site were reviewed prior to the field assessment to identify any potential drainage features, riverine/riparian habitat types, water bodies and/or other features that may fall under United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and/or CDFW jurisdictions that may require investigation during the field survey. Per the MSHCP, riverine/riparian habitats are lands containing habitat dominated by trees, shrubs, persistent emergents and/or emergent mosses and lichens which occur close to or which depend upon soil moisture from a nearby fresh water source or areas with fresh water flow during all or a portion of the year. The presence of any potentially jurisdictional features, including associated vegetation communities, presence of ordinary high watermarks (OHWMs) or streambeds, substrates, hydrological indicators and potential connectivity, were documented during the field survey. The habitat assessment did not include a formal jurisdictional delineation effort.

3.4 Burrowing Owl

The Project is located within an area requiring surveys for burrowing owl. This report is intended to satisfy the habitat assessment guidelines outlined by the MSHCP in *Step 1: Habitat Assessment* as well as *Step 2 Part A: Focused Burrow Surveys* of the Burrowing Owl Survey Instructions (2006).

3.4.1 Burrowing Owl Habitat Assessment

In accordance with survey guidelines contained in the MSHCP, an initial habitat assessment for burrowing owl was conducted on October 14, 2016 during the overall site assessment. The assessment was performed by systematically searching for potential foraging and nesting habitat within the Project area and within an additional buffer area to cover a total 150-meter buffer around proposed Project components according to guidelines included in the Western Riverside County Regional Conservation Authority (RCA) Burrowing Owl Survey Instructions for the Plan Area (2006). Suitable habitat was identified by the presence of low vegetation cover; presence of potential burrows; perch sites; and/or BUOW sign such as scat, tracks, pellets and/or feathers. Suitable nesting and foraging habitat for burrowing owl were mapped onto high-resolution aerial photographs of the Project site. Burrow locations suitable for burrowing owl occupancy were logged onto handheld Global Positioning System (GPS) units.

4.0 RESULTS

4.1 Literature Review Results

The literature review resulted in a total of two sensitive wildlife species and no sensitive plant species known to occur within the Project vicinity (Table 3). Both wildlife species, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and burrowing owl (*Athene cunicularia*) are California Species of Special Concern and are not listed as State or federally threatened or endangered.

4.1.1 MSHCP Requirements (criteria cells, fee areas, narrow endemic plants, jurisdictional areas)

The Project site is located on APN 297-170-078-5 within the City of Moreno Valley in the Reche Canyon/Badlands Area Plan. The RCIP report indicates the Project is not located within a Plan Cell Group or Plan Criteria Cell, however. According to the RCIP TLMA report, the Project area necessitates habitat assessments for burrowing owl. Per the RCIP TLMA report, the Project area does not require surveys for criteria areas species, mammals, amphibians, narrow endemic plant species or special linkage areas.

4.2 Habitat Assessment Results

The proposed Project is located within 6.71 acres of mass graded, vacant land immediately southwest of the intersection of Brodiaea Avenue and Heacock Street, isolated from the larger extant habitats of the region. The western boundary of the Project abuts a maintained retention basin devoid of vegetation and industrial land uses. The northern boundary abuts Brodiaea Avenue and vacant land that has been graded and filled in various phases for years. The eastern boundary abuts an improved drainage channel (Heacock Channel), Heacock Avenue and residential development. The southern boundary abuts industrial land uses. No native vegetation communities exist on the Project site or within the Survey Area.

Elevations within the Project site range from 1,562 feet above mean sea level (AMSL) in the extreme southeast corner at its lowest point, up to 1,567 feet AMSL in the extreme northwest corner of the Project at its highest point. Soils within the Project are sandy loam with slopes ranging from 0 to 2 percent. Two distinct soil series occur within the Project site. Soil units found within the Project are included in Table 2 below.

Table 2. Soils Occurring Within the Project Site

Map Unit Symbol	Map Unit Name	Acres in Project Site	Percent of Project Site
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded	5.11	76.2%
MmB	Monserate sandy loam, 0 to 5 percent slopes	1.6	23.8%

4.2.1 Existing Land Use and Site Conditions

Existing conditions within the Project site include various types and levels of anthropogenic modification, generally lacking native vegetation and natural topographic relief. Overall, the site shows evidence of previous soil disturbances through both intentional earth moving activities and fire

fuel reduction action. Review of historic aerials of the Project site indicate that the site has undergone periodic vegetation maintenance in the form of mowing and disking since at least as far back as 2005 (Google Earth 2016). Topographically, the site generally drains from northwest to southeast, where a drainage grate has been installed to connect to Heacock Channel. Residential and industrial development over time adjacent to the Project site has rendered the area fully isolated from native habitats.

Hydrology within the site has been modified to facilitate drainage through uplands toward the grate at the southeast corner of the Project site. Historically, the Project site may have supported a swale from its northwest corner to the southeast corner (NRCS 2016); however, that cannot be determined. Regardless, adjacent development has eliminated upstream hydrological input, and no observable hydrologic features, such as an OHWM or streambed, were discernable at the time of the survey.

4.2.2 Vegetation Communities

One distinct vegetation community/land use type was observed within the Survey Area. Land use types are described according to *Volume II, Section C Habitat Accounts – Vegetation Associations of the Plan* and further described based on dominant plant species present and land uses in order to further distinguish existing vegetation communities. A total of 6.71 acres of Residential/Urban/Exotic – Disturbed Areas were identified to occur within the Project site. Vegetation mapping showing the distribution of the vegetation community identified within the Project site is shown in Figure 2.

Residential/Urban/Exotic – Disturbed Areas

Per the MSHCP, residential/urban/exotic land uses often include ruderal plant communities. These areas often occur due to edge effects of developed roads and associated urban land uses (TLMA 2004). Typical species include pineapple-weed (*Matricaria discoidea*), common knotweed (*Polygonum arenastru*), sow-thistle (*Sonchus oleraceus*), horseweed (*Conyza canadensis*) and goosefoot (*Chenopodium* spp.). Disturbed areas may also include escaped landscaping and ornamentals (Holland and Keil 1995). Within the Project, these ruderal plant communities are further described as “Disturbed Areas.”

Disturbed areas at the time of the survey were composed primarily of bare ground and disked soils. These areas exhibited sparse, non-native, ruderal, vegetative ground cover typical of frequent soil disturbances such as red brome (*Bromus madritensis* ssp. *rubens*), Russian tumbleweed (*Salsola tragus*), Mediterranean schismus grass (*Schismus barbata*), tumble mustard (*Sisymbrium* sp.), star thistle (*Centaurea melitensis*), short-pod mustard (*Hirschfeldia incana*), Indian sweetclover (*Melilotus indica*), white sweetclover (*Melilotus alba*), Bermuda grass (*Cynodon dactylon*), jimson weed (*Datura stramonium*), pineapple weed, sow-thistle and horseweed, with occasional native species such as common sunflower (*Helianthus annuus*), common spikeweed (*Centromadia pungens*), telegraph weed (*Heterotheca grandiflora*), popcorn flower (*Cryptantha* sp.) and cudweed aster (*Corethrogyne filaginifolia*) also observed.

4.2.3 Jurisdictional Waters and Riverine/Riparian Habitats

USACE, RWQCB and CDFW regulate discharge into and impacts to wetland and non-wetland water bodies meeting certain criteria. The MSHCP regulates impacts to riverine/riparian communities and vernal pools, as well as species associated with these habitat types, as outlined in section 6.1.2 of the MSHCP. The MSHCP specifically describes riverine/riparian habitats as “lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur

close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.”

Although a historic swale feature may have occurred within the Project site, the feature would have bisected the Project from northwest to southeast, terminating at Heacock Channel. Currently, a grate is situated at the lowest point of the Project site at the southeast corner, providing underground drainage connectivity via corrugated metal pipes to Heacock Channel, immediately east of the Project site. An erosional gully existing on uplands leading to the grate has been graded and re-graded over the years on the Project site, and is not a naturally occurring drainage feature. This erosional gully contains no aquatically adapted plant species, was not created for the purposes of creating wetland habitat or open water areas, and does not occur within a natural feature and, as such, is not subject to riverine/riparian criteria as defined by the MSHCP (RCIP 2003).

While the erosional gully is not considered riverine/riparian habitat per the MSHCP, the feature was further evaluated for applicable federal and state standards for a jurisdictional water feature. Due to construction entirely within upland habitats and draining only uplands (urban runoff) and lack of a naturally occurring defined bed and bank (streambed) or OWHM, the gully is likely not considered a non-wetland water of the United States by USACE or a jurisdictional streambed by CDFW. The gully is not located adjacent to a traditional navigable water (TNW) or relatively permanent water (RPW) and is likely considered isolated; USACE does not regulate isolated wetland features under Section 404 permit authorization of the CWA (SWANCC Decision 2001). Furthermore, due to lack of a defined streambed and any riparian associated vegetation, the gully is likely not considered jurisdictional by the CDFW.

4.2.4 Sensitive and Observed Wildlife Species

The literature review resulted in a list of two sensitive wildlife species with the potential to occur within the Project vicinity. These species and their potentials for occurrence are further described in Table 3.

Wildlife species observed on the Project site and in the general vicinity included Anna's hummingbird (*Calypte anna*), house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), ring-billed gull (*Larus delawarensis*), western meadowlark (*Sturnella neglecta*), yellow-rumped warbler (*Setophaga coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), killdeer (*Charadrius vociferus*), European starling (*Sturnus vulgaris*), side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), desert cottontail (*Sylvilagus audobonii*) and coyote (*Canis latrans*).

Table 3. Sensitive Wildlife Species Potentially Occurring Within the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
BIRDS			
Burrowing owl <i>Athene cunicularia</i>	Federal: BCC State: SSC Local: MSHCP-covered	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and pipes.	Moderate. This species has been historically documented to occur in the Project vicinity and moderate quality habitat occurs on the Project site.
MAMMALS			
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Federal: None State: SSC Local: MSHCP-covered	This species is associated with sparsely vegetated lower elevation grasslands, alluvial sage scrub and coastal sage scrub, where it tends to occur in patches with fine sandy soils, such as dry washes and aeolian deposits.	Absent. This species has been documented to occur within the vicinity. However, there are no suitable soils onsite for this species. Due to regularly tilled and disturbed soil, island effects and lack of typical habitat, this species is presumed absent from the Project site.

Of the two wildlife species documented to occur within the Project vicinity, only burrowing owl is considered to have a moderate potential for occurrence based on proximity of historic records, marginal quality habitat on site and a number of burrowing owl-suitable burrows within 150 meters of the Project site. The Los Angeles pocket mouse is presumed absent based on the lack of appropriate habitat, lack of suitable soils, regular disking activities and/or presumed extirpation from the Project area due to island effects.

The habitat assessment was completed, in part, to fulfill guidelines outlined in *Step 1: Habitat Assessment* as well as *Step 2 Part A: Focused Burrow Surveys* of the Burrowing Owl Survey Instructions for the Plan Area (2006). Burrowing owl habitat within the Project site includes nearly all Disturbed Areas. While the Project site is composed of bare ground and open, disturbed vegetation suitable for burrowing owl foraging, nesting opportunities are limited to those areas supporting potential host burrows. Developed Areas surrounding the Project site were excluded due to a lack of suitable burrows or burrow surrogates. Remaining areas within the northern portion of the Survey Area, as well as in limited areas next to Heacock Channel, exhibited open and bare or sparsely vegetated soils with observed California ground squirrel burrows suitable for burrowing owl occupancy. Within the

Project site, potential burrow surrogates primarily occurred in conjunction with small concrete and/or boulder piles, but no burrowing owls and/or burrowing owl sign were observed during the habitat assessment within the Project site or the Survey Area. However, due to the presence of suitable burrowing owl habitat onsite and the presence of numerous burrowing owl-suitable burrows within the Project site and the Survey Area, a pre-construction burrowing owl survey will be required within 30 days of breaking ground for the Project.

4.2.5 Special Status and Observed Plant Species

The literature review resulted in no sensitive plant species with the potential to occur within the Project site.

The complete list of plant species observed onsite is detailed within the *Residential/Urban/Exotic – Disturbed Areas* sub-section of Section 4.2.2 *Vegetation Communities*.

4.3 Migratory Birds

The Project site is nearly entirely devoid of woody vegetation. However, the surrounding areas collectively contain limited pockets of ornamental shrubs and trees, as well as grasses and other ground cover, that provide suitable habitat for a wide variety of nesting birds. Nearly all native nesting birds are protected by the Migratory Bird Treaty Act (MBTA) and CDFW Codes 3500 through 3516. Commonly observed bird species during the habitat assessment with the potential to nest within the Project area include Anna's hummingbird, western meadowlark, black phoebe and house finch. The large open nature of the Project site may also provide suitable habitat for ground nesting birds such as killdeer and horned lark (*Eremophila alpestris*).

4.4 Wildlife Movement Corridors

Tracks, sign, burrows and/or direct visual observation of various small mammal species, such as Botta's pocket gopher, desert cottontail and California ground squirrel, were observed throughout the Project site. No concentrations of wildlife tracks or sign were observed, and no established corridors or connectivity to larger conservation areas of the region were observed. The isolated nature of the Project site surrounded by development essentially precludes corridor potential.

5.0 WESTERN RIVERSIDE MSHCP CONSISTENCY ANALYSIS

The Project is not located within a MSHCP Criteria Cell or Cell Group. The MSHCP establishes habitat assessments for certain plant and animal species. The Project is located within an area of the MSHCP only requiring habitat assessments for burrowing owl. The Project does not support riparian/riverine habitats. Narrow endemic plant species are not expected to occur within the Project site.

5.1 Urban Wildlands Interface

The Project site is not adjacent to a MSHCP Conservancy Area and thus does not pose a risk of causing indirect effects to MSHCP Conservancy Areas. Therefore, no further analysis is required under section 6.1.4 of the MSHCP.

5.2 Sensitive Wildlife Species

The Project site is located within a survey area for burrowing owl. A habitat assessment during a site visit conducted on October 14, 2016, identified suitable foraging and nesting habitat for burrowing owl within the Project site and the Survey Area. Due to the presence of suitable habitat, a pre-construction survey for burrowing owl will be required within 30 days of initiating construction per section 6.3.2 of the MSHCP. No additional species requiring focused survey efforts or non-covered sensitive wildlife species with the potential to occur on site were identified during the literature review and site assessment.

5.3 Sensitive and Narrow Endemic Plant Species

The Project site is not located within a Narrow Endemic Plants Survey Area under section 6.1.3 of the MSHCP. No additional non-covered sensitive or narrow endemic plant species with the potential to occur on site were identified during the literature review and site assessment.

5.4 Jurisdictional Waters

The habitat assessment identified one partially graded, non-jurisdictional erosional gully on uplands and dominated by upland vegetation occurring within the Project site. The habitat assessment did not include a formal jurisdictional and wetland delineation of the Project site. No additional information is required to determine if specific areas of the Project site meet the three-parameter criteria of a wetland and fall under the jurisdiction of the USACE, RWQCB and/or CDFW. Additional jurisdictional waterway permitting will not be required.

5.4.1 Riverine/riparian habitats

The erosional gully within the Project site is not subject to riverine/riparian criteria as defined by the MSHCP (RCIP 2003).

5.4.2 Riverine/riparian species

Riverine/riparian habitat does not occur within the Project site, and no habitats expected to support riverine/riparian-associated species were observed on the Project site.

5.5 Vernal Pool and Fairy Shrimp

No vernal pools or habitats that could potentially support fairy shrimp species were observed on the Project site.

6.0 POTENTIAL IMPACTS

This section of the report includes a discussion of the potential direct and indirect impacts to onsite plant and wildlife resources that may result upon the construction and implementation of the Project. Direct impacts include those involving the loss, alteration, and/or disturbance of plant communities, and consequently, the flora and fauna of the affected area. Direct impacts also include the destruction of individual plants and/or wildlife. Direct impacts may adversely affect regional populations of certain species, or result in isolated populations, reducing genetic diversity and range-wide population stability; conversely, direct impacts may also have intended or unintended positive effects in some cases.

Indirect impacts include a variety of effects related to areas or habitats that are not directly removed by project development, such as loss of foraging habitat, increased ambient noise, artificial light, introduced predators (e.g., domestic cats, dogs and other non-native animals), competition with exotic plants and animals, increased human presence and associated disturbances (e.g., trash, green waste, physical intrusion). Indirect impacts may include long and/or short term daily activities associated with project build-out, such as increased traffic, permanent barriers or fences, buildings, exotic seed-bearing ornamental plantings, irrigated landscapes and human presence, among others. These types of impacts are known as edge effects and over time, may result in some encroachment on native plants by exotic plants, altered behavioral wildlife patterns, reduced wildlife diversity, and decreased wildlife abundance in habitats adjacent to a given project site. However, as is the case with direct impacts, indirect impacts may also have intended or unintended positive effects for certain species.

The potential for significant adverse effects, either directly or indirectly through habitat modification or conversion, on any special-status vegetation community, plant species or wildlife species, or that could occur as a result of the development of this Project is discussed within this section.

6.1 Habitat

The Project would include permanent impacts associated with the complete clearing, grading and construction of the overall 6.71-acre Project Site. The currently undeveloped site is comprised entirely of a Residential/Urban/Exotic – Disturbed Areas vegetation community and land use type that would be completely and permanently converted to a fully developed commercial development.

As shown in Table 4, Project implementation will not impact native vegetation communities.

Table 4. Summary of Impacts to Vegetation Communities/Land Use Types

Vegetation Community/ Land Use Type	Impact Area (Acres)
Residential/Urban/Exotic	6.71
<i>Disturbed Areas</i>	6.71
Subtotals: Non-Native Vegetation Communities	6.71
N/A	0.00
Subtotals: Native Vegetation Communities	0.00
TOTAL	6.71

6.2 MSHCP-Covered Species

Of the two wildlife species evaluated during the habitat assessment survey effort, one species functionally covered under the MSHCP was identified to have no potential to occur within the Project site: Los Angeles pocket mouse. No other special status species not covered by the MSHCP were observed or are expected to occur within the Project site. Therefore, no additional impacts are anticipated for Los Angeles pocket mouse or any other special status species not covered by the MSHCP.

Due to the presence of suitable habitat and a number of suitable burrow sites, the following sensitive wildlife species was identified to have the potential to occur within the Project site:

- Burrowing owl

Since suitable burrowing owl habitat occurs on the Project site, the following mitigation measure (MM) is recommended to reduce potential impacts to MSHCP-covered species of the region below significant levels:

- **MM-BIO 1:** Pay Local Development Mitigation Fee. Per the MSHCP, prior to issuance of a grading or building permit, the Project applicant will be required to pay relevant City of Moreno Valley development mitigation fees to the Western Riverside County Regional Conservation Authority. As of October 17, 2016, the MSHCP fee is \$6,333 per acre for commercial projects.

6.3 Species Requiring Additional Surveys and/or Habitat Assessments

6.3.1 Burrowing Owl

The habitat assessment identified suitable habitat and burrow sites for burrowing owl both within and adjacent to the Project site through a focused effort to detect potential burrows, burrow surrogates and sign. A subsequent pre-construction survey effort will be required within 30 days of initiating construction on the Project site according to Western Riverside County Regional Conservation Authority (RCA) Burrowing Owl Survey Instructions for the MSHCP Area (2006). Potential permanent direct impacts to burrowing owl as a result of the Project include habitat loss, nesting habitat removal, roosting site loss and/or loss of individuals. Indirect impacts to burrowing owl may include loss of foraging habitat, increased human disturbance, increased predator abundance, artificial lighting and noise. Direct and indirect impacts to burrowing owl within the MSHCP area, with the exception of loss of individuals, are functionally mitigated through the MSHCP, and payment of appropriate fees to the City of Moreno Valley (MM-BIO 1). The following mitigation measures are recommended to reduce potential impacts to burrowing owl below significant levels:

- **MM-BIO 2:** Conduct pre-construction burrowing owl surveys within the Project site and 150-meter Survey Area surrounding the Project site within 30 days of initiating construction activities, according to the Western Riverside County Regional Conservation Authority (RCA) Burrowing Owl Survey Instructions for the Plan Area (2006). After completion of the survey, a final report shall be submitted to the Riverside County Environmental Programs Department (RCEPD) and the RCA Monitoring Program Administrator, which discusses survey methods, transect widths, duration, conditions and results of the survey. The report will discuss any additional required mitigation for MSHCP consistency.

6.3.2 Migratory Birds

The assessment identified suitable habitat and substrate for migratory birds protected under the MBTA and CDFW Codes 3503 and 3503.5. Permanent impacts to migratory birds as a result of the Project may include habitat loss, nesting habitat removal, roosting site loss and/or loss of individuals. Indirect impacts may include fugitive dust, excess noise, increased artificial lighting, and the attraction of predators to the Project site. The following mitigation measure is recommended to reduce potential impacts to migratory bird species below significant levels:

- **MM-BIO 3:** To the extent feasible, conduct vegetation removal outside of the nesting bird season (generally between February 15 and August 31). If vegetation removal is required during the nesting bird season, conduct take avoidance surveys for nesting birds within 100-feet of areas proposed for vegetation removal. Surveys should be conducted by a qualified biologist(s) within three days of vegetation removal. If active nests are observed, a qualified biologist will determine appropriate minimum disturbance buffers or other adaptive mitigation techniques (e.g., biological monitoring of active nests during construction-related activities, staggered schedules, etc.) to ensure that impacts to nesting birds are avoided until the nest is no longer active.

6.3.3 Potentially Jurisdictional Areas

The assessment identified an absence of potentially jurisdictional waters within the Project site, therefore qualifying the Project as exempt for USACE, RWQCB and/or CDFW permits for jurisdictional waters.

6.0 SURVEYOR CERTIFICATION

All data, statements, analyses, findings and attachments within this report are accurate and truthful in terms of describing the existing conditions and the Project as proposed to Blackhawk Environmental. By adhering to the mitigation measures proposed within this habitat assessment report and payment of appropriate fees to the Western Riverside County Regional Conservation Authority, compensatory mitigation related to the complete the Project will be met to CEQA significance thresholds.



Kris Alberts
Principal Biologist



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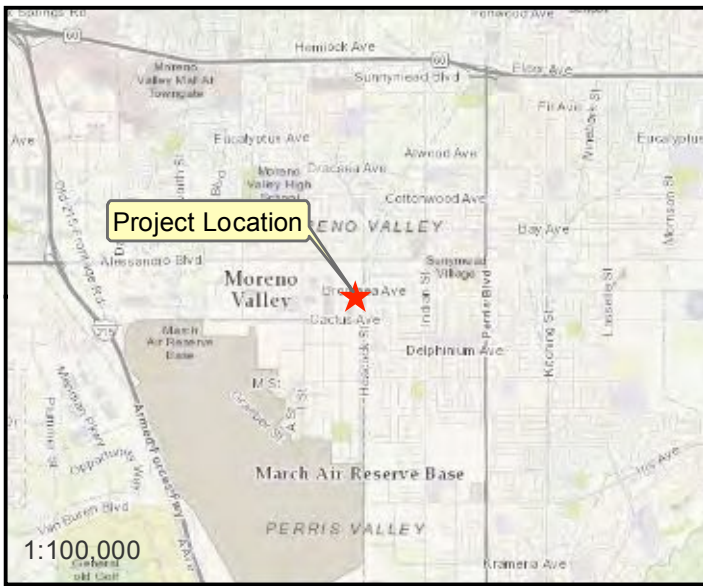
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ATTACHMENT A

Figures





Legend

 Project Location

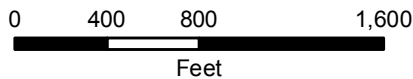


Figure 1
Project Vicinity Map

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Figure 2
Vegetation Map



- Legend**
- Project Boundary
 - Vegetation**
 - Disturbed

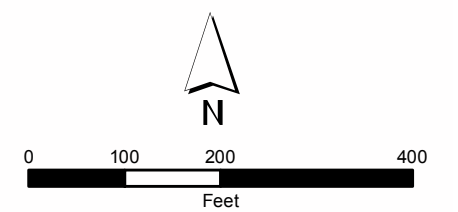
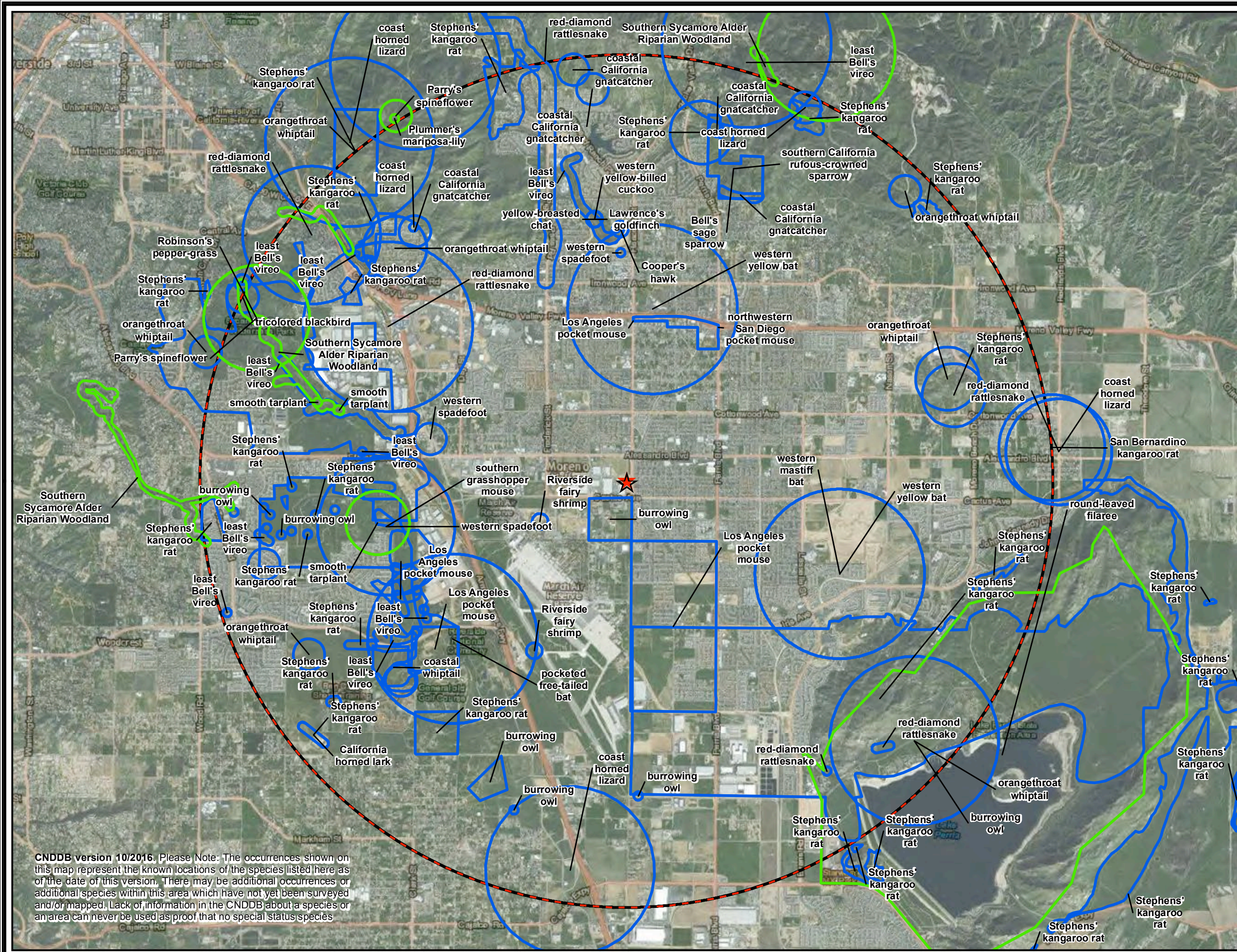


Figure 3
CNDDDB Results Map

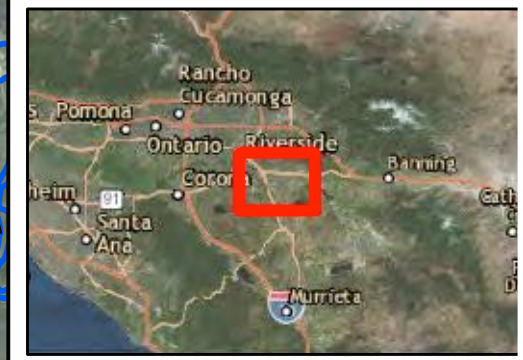
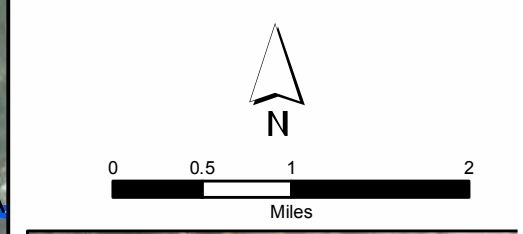


Legend

- ★ Project Location
- Project Location 5-mile Buffer

CNDDDB Results

- ▭ Animals
- ▭ Plants



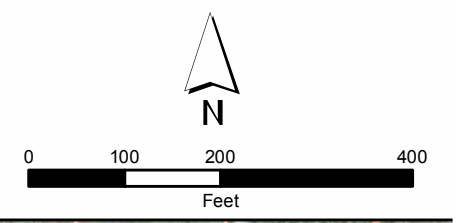
CNDDDB version 10/2016. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Figure 4
Burrowing Owl
Suitable Non-Occupied Burrows



- Legend**
- Project Boundary
 - BOUW Suitable Non-Occupied Burrows



Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

ATTACHMENT B

Site Photographs





Photo 1: Northwest-facing view from the southeast corner of the Project site. This photo is representative of the disturbed habitat on the Project site, with regular vegetation removal and disking. Note the drainage grate in the foreground, connected to Heacock Channel.



Photo 2: Southeast-facing view from the northwest corner of the Project site, depicting disturbed habitat within the Project area. Brodiaea Avenue is shown in the left frame.

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))



Photo 3: Northwest-facing photo of the erosional gully on disturbed uplands in the southeastern portion of the Project. The gully is dominated by ruderal, upland vegetation. Disked land on the Project site and surrounding industrial development is shown in the background.



Photo 4: Southwest-facing view of the maintained retention basin adjacent to the western portion of the Project site within the burrowing owl Survey Area. Note the complete lack of vegetation and absence of burrows.

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))



Photo 5: Southwest-facing view from the northeast corner of the Project site, showing recently disked soils, a lack of vegetation, and heavily disturbed habitat characteristic of the overall Project site.



Photo 6: East-facing overview photo showing the disturbed habitat north of the Project site within the burrowing owl Survey Area. This area has been disked in phases, with the greatest vegetative cover occurring where soils have been disked less recently than in other portions.

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))



Photo 7: Two California ground squirrel burrows within the erosional gully toward the southeast corner of the Project site. These burrows are suitable for burrowing owl, but no burrowing owl sign was found.



Photo 8: A concrete rubble pile with California ground squirrel burrows on the Project site suitable for burrowing owl occupancy. No owl sign was found.

Attachment: Habitat Assessment Report (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))



Photo 9: An aqueduct manhole cover with California ground squirrel burrows below, as well as a suitable burrowing owl perch site on the Project site. No owl sign was found.

November 10, 2016

Rafik Albert
E|P|D Solutions, Inc.
2030 Main Street, Suite 1200
Irvine, CA 92614

Delivered via email to rafik@epdsolutions.com with copy to Andrea Arcilla (andrea@epdsolutions.com)

RE: Letter Report for Cultural and Paleontological Records Searches for the Brodiaea Site, located in the City of Moreno Valley, Riverside County, California (EPD Project Number 16-038).

Dear Mr. Albert,

The following letter report details the results of cultural and paleontological resources records searches and literature reviews conducted by Material Culture Consulting in October and November 2016. This work was conducted at the request of EPD Solutions, Inc. (EPD), on behalf of their client, Alan Sharp.

Project Location and Description

The Brodiaea project is a 99,978 square foot industrial warehouse facility on a 6.71-acre site in Moreno Valley (Figure 1). The site is identified as APN 297-170-078-5 and is zoned BP – Business Park. The project consists of one single-story concrete tilt up building. The project site is triangular in shape and is bounded to the north by Brodiaea Avenue, with vacant land beyond; to the west and south by warehouses and related uses; and to the east by a drainage channel (Heacock Channel) and Heacock Street, with single-family residences beyond. The site would have two unsignalized driveways from Brodiaea Drive. Specifically, the project area is located within Section 13 of Township 3 South and Range 4 West, San Bernardino Base and Meridian and depicted on the USGS 7.5' Topographic Quadrangles Riverside East and Sunnymead (Figure 2).

Methods

Material Culture Consulting conducted a cultural and paleontological literature and geographic review of the project area. We contacted the Native American Heritage Commission (NAHC) for a review of the Sacred Land File (SLF) and a list of culturally affiliated tribes within the project region. We also coordinated with staff at the Eastern Information Center (EIC) at the University of California, Riverside to conduct a cultural resources records search of the project area along with a 1-mile radius around the project area. Finally, we reviewed online paleontological databases, and contacted the Los Angeles County Museum of Natural History (LACM) to conduct a fossil locality search. Our geographic review included historic aerials, historic-era topographic maps, and the highest resolution geology maps available for the project area. The records search results and maps follow this report.

Results

The results of the literature review are as follows:

Cultural Resources

- No cultural resources or Sacred Lands are previously recorded within the project area. A total of 79 cultural resources lie within a 1-mile radius of the project area.
- One previous study was conducted over a portion of the project area (Foster et al. 1991), resulting in negative findings within the project area. A total of 30 additional cultural resources studies have taken place within 1-mile of the project area.
- No historic-era structures are visible on aerial photographs (earliest date 1966) or USGS topographic maps, with the exception of the Elsinore (1901) historic map of the area. This map depicts the general vicinity of the project area as being located in center of the historic community of Armada, which would eventually join with become part of City of Moreno Valley (Figure 3).
- The property has not been developed in the past, however it has been subjected to repeated grading and agricultural plowing since at least 1966, which is visible on the aerial photographs (Figure 4).

Paleontology

- No fossil localities are known to have originated from the project area, however one bison fossil (*Bison sp.*) is known from within a 1-mile radius of the project area (McLeod 2016 (attached), Jefferson 2014).
- According to the LACM records search, the project area sediments are mapped as younger Quaternary alluvial fan deposits, which may overlay older Quaternary deposits that contain significant vertebrate fossils.
- According to our review of geologic maps (Figure 5 from Morton and Cox 2001, Morton and Matti 2001), the area appears to be mapped as Very Old Alluvial Fan Deposits, which date to the early Pleistocene.
- According to Riverside County Planning Department, the project area is considered High B sensitivity for paleontological sensitivity (Riverside County Land Identification System, Paleontological Sensitivity Overlay).

Recommendations

Based on these results and the current conditions of the project area, there is very little potential for encountering cultural resources during project implementation. Therefore, we do not recommend further cultural resources assessments at this time. However, it is recommended that Native American outreach letters be sent to the 34 contacts provided by the NAHC in their response (see attachment), in order to identify resources that may not be known to the NAHC or to the EIC.

Based on our paleontological records search and literature review, there is a high potential for encountering paleontological resources in excavations extending deeper than 4 feet below surface. According to County requirements, areas identified as High B sensitivity will require preparation of a Paleontological Resource Impact Mitigation Program will need to be filed with the Riverside County Geologist prior to site grading. The PRIMP will identify the steps necessary to mitigate impacts to

paleontological resources. It is anticipated that paleontological monitoring will be required during all project activities involving ground disturbance.

Please feel free to contact me at any time for any questions or concerns you may have.

Sincerely,



Tria Belcourt, M.A., RPA
Owner and Principal Archaeologist
Material Culture Consulting

Attachments: Project Area Maps and Records Search Results

References

Foster, J., J. J. Schmidt, C. A. Weber, G. R. Romani

1991 *Cultural Resource Investigation: Inland Feeder Project, Metropolitan Water District of Southern California*. Prepared for P&D Technologies by Greenwood and Associates, Pacific Palisades, California. On file at Material Culture Consulting, Claremont, CA.

Jefferson, G. T.

2014 *Catalogue of Late Quaternary Vertebrates from California*. Revised version of "A catalogue of Late Quaternary vertebrates from California". Personal communication from G.T. Jefferson to A. Harris (no date cited). Pleistocene Vertebrates of Southwestern USA and Northwestern Mexico, Online database accessed on 11/5/2016. <https://www.utep.edu/leb/pleistnm/sites/morenovalley.htm>

Morton, D. M. (as mapped in 1988, 1996-1997) and B. Cox (as mapped in 1988)

2001 *Geologic Map of the Riverside East 7.5' Quadrangle, Riverside County, California*. Digital Preparation by M. Dawson and T. O'Brien. Published by U.S. Geologic Society.

Morton, D. M. (as mapped in 1978, 1996-1997) and J.C. Matti (as mapped in 1996-1997)

2001 *Geologic Map of the Sunnymead 7.5' Quadrangle, Riverside County, California*. Digital Preparation by V.M. Diep and U. Edwards-Howells. Published by U.S. Geologic Society.

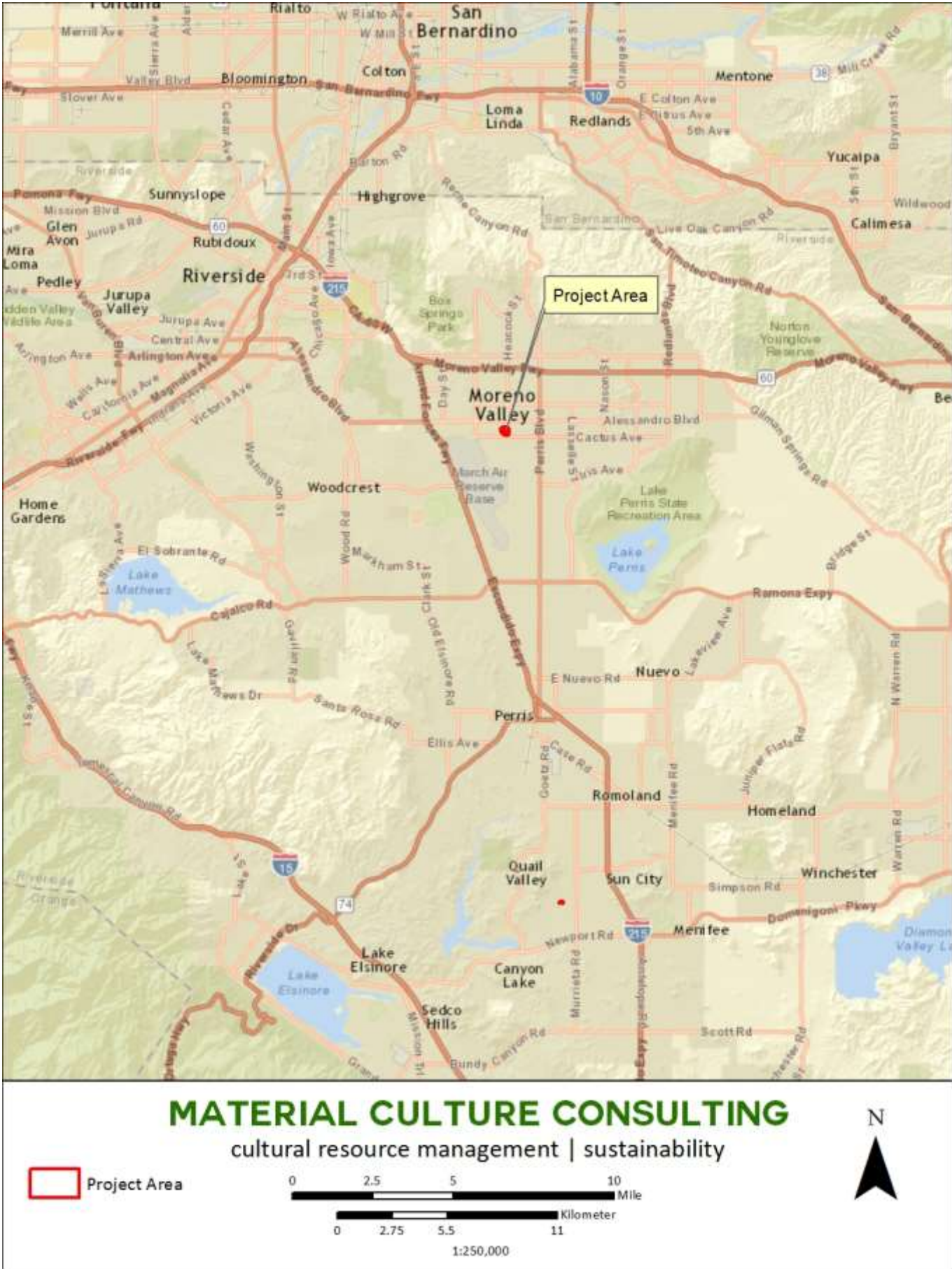


Figure 1. Project Vicinity Map

Attachment: Cultural & Paleontological Resources Literature Review & Records Search (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance

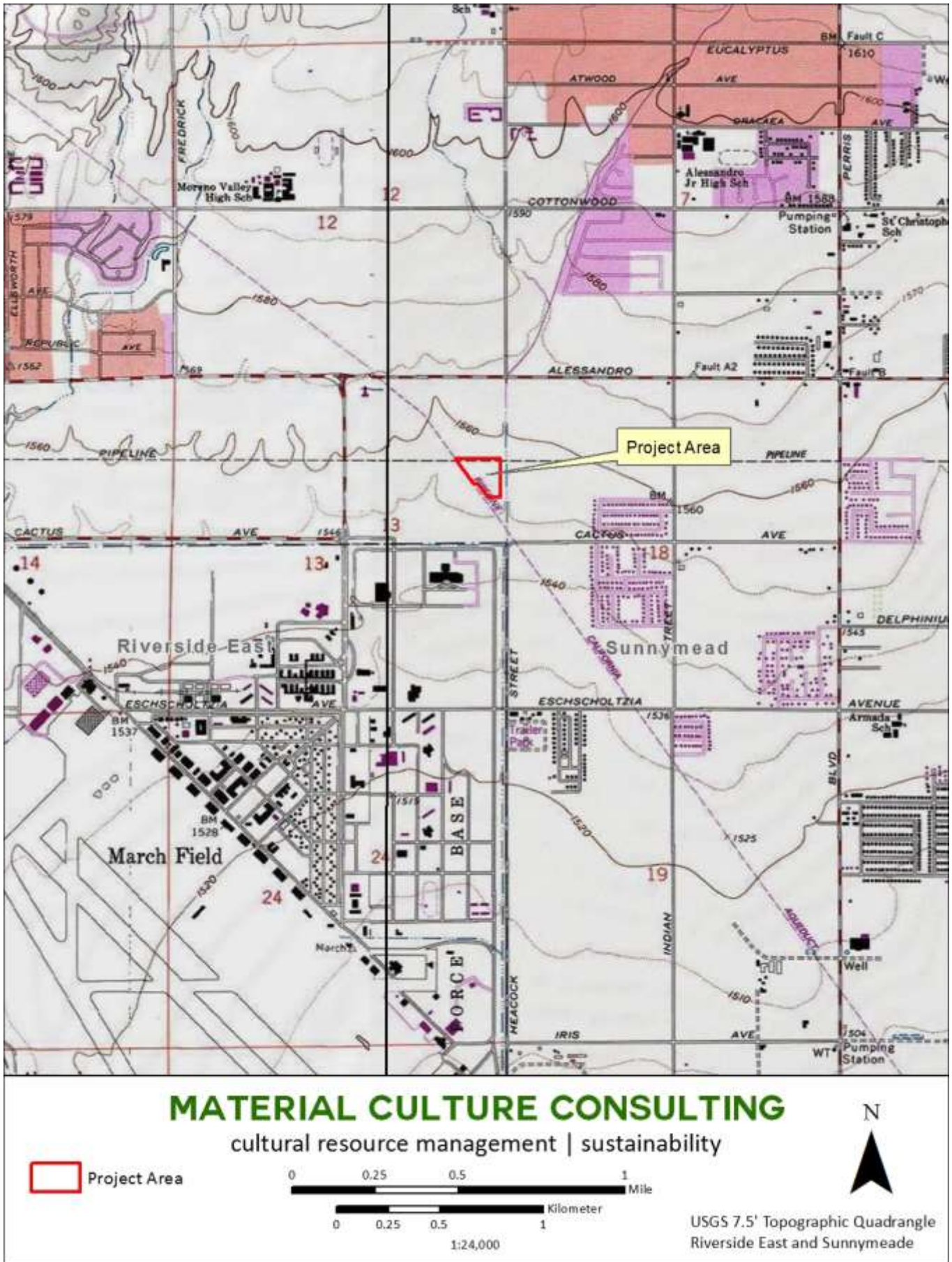


Figure 2. Project Area



Figure 3. Project Area Depicted on Historic Topographic Map (Elsinore 1901)



Figure 4. Current Project Area depicted on Aerial Photograph (showing recent grading)

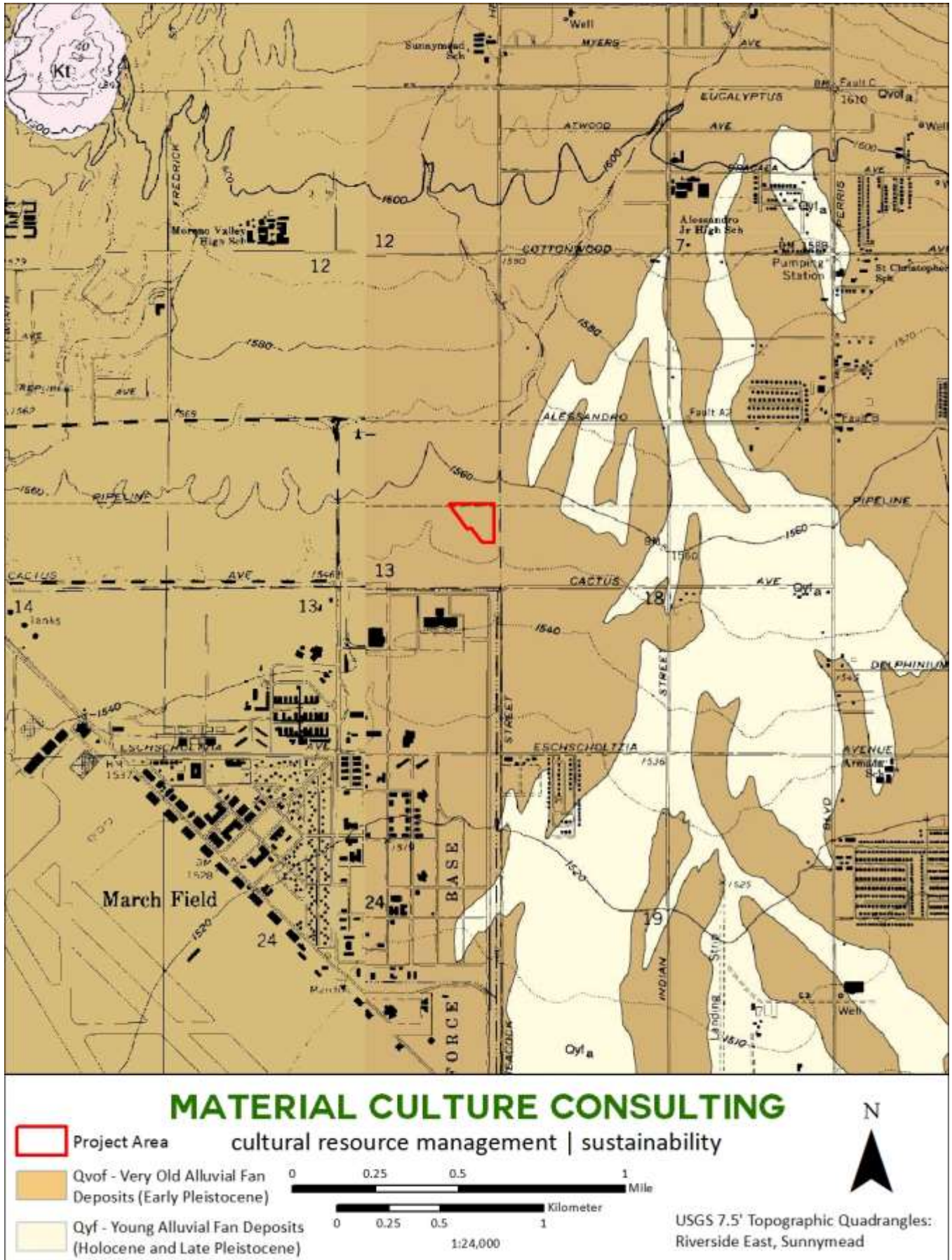


Figure 5. Project Area Geologic Map (see above for references)

Attachment: Cultural & Paleontological Resources Literature Review & Records Search (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance

EASTERN INFORMATION CENTER
 CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM
 Department of Anthropology, University of California, Riverside, CA 92521-0418
 (951) 827-5745 - eickw@ucr.edu
 Inyo, Mono, and Riverside Counties

November 9, 2016
 CHRIS Access and Use Agreement No.: 425
 EIC- RIV-ST-3896

Tria Belcourt
 Material Culture Consulting
 342 Cucamonga Ave.
 Claremont CA, 91711

Re: Cultural Resources Records Search for Brodiaea

Dear Tria Belcourt,

We received your request on October 17, 2016, for a cultural resources records search for the Brodiaea project located in multiple sections, SBBM, in Riverside County. We have reviewed our site records, maps, and manuscripts against the location map you provided.

Our records indicate that 31 cultural resources studies have been conducted within a one-mile radius of your project area. One of these studies involved a portion of the project area. A PDF copy of the report is included for your reference. All of the reports are listed on the attachment entitled "Eastern Information Center Report Details" and are available upon request at 15¢/page plus \$40/hour for hard copies, or 15¢/page plus \$40/hour and a \$25 flat fee for PDFs.

Our records indicate that 79 cultural resources properties have been recorded within a one-mile radius of your project area. None of these properties involved a portion of the project area. All of these resources are listed on the attachment entitled "Eastern Information Center Resource Details".

The above information is reflected on the enclosed maps. Areas that have been surveyed are highlighted in yellow; Numbers marked in blue ink refer to the report number (RI #). Cultural resources properties are marked in red; numbers in black refer to Trinomial designations, those in green to Primary Number designations. National Register properties are indicated in light blue.

Additional sources of information consulted are identified below.

National Register of Historic Places: (33-009288, 33-009237, 33-009289, 33-009290, 33-009291, 33-009292, 33-009293, 33-009294, 33-009295, 33-009296, 33-009297, 33-009207, 33-009208, 33-009298, 33-009299, 33-009213, 33-009214, 33-009300, 33-009301, 33-009302, 33-009303, 33-009226, 33-009304, 33-009215, 33-009305, 33-009306, 33,009216, 33-009307, 33-009308, 33-009211, 33-009309, 33-009310, 33-009236, 33-009217, 33-009311, 33-009312, 33-009238, 33-009212, 33-009313, 33-009235, 33-009314, 33-009218, 33-009315, 33-009316, 33-009317, 33-009219,

33-009318, 33-009319, 33-009320, 33-009221, 33-009322, 33-009222, 33-009323, 33-009324, 33-009325, 33-009326, 33-009327, 33-009328, 33-009329, 33-009330, 33-009331, 33-009332, 33-009333, 33-009334, 33-009335, 33-009336, 33-009444, 33-017969, 33-017970) are listed.

Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility (ADOE): no listed properties are located within the boundaries of the project area.

Office of Historic Preservation (OHP), Directory of Properties in the Historic Property Data File (HPD): Two properties (33-007279, 33-007280) are listed and are potentially eligible for inclusion in the National Register of Historic Places. The applicable portion of this directory is enclosed for your study needs.

Note: not all properties in the California Historical Resources Information System are listed in the OHP ADOE and HPD; the ADOE and HPD comprise lists of properties submitted to the OHP for review.

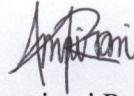
A copy of the relevant portions of the 1901 USGS Elsinore 30' topographic map is included for your reference.

As the Information Center for Riverside County, it is necessary that we receive a copy of all cultural resources reports and site information pertaining to this county in order to maintain our map and manuscript files. Confidential information provided with this records search regarding the location of cultural resources outside the boundaries of your project area should not be included in reports addressing the project area.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by the IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Sincerely,



Amairani Ramirez
Information Officer

Enclosures

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
 West Sacramento, CA 95691
 (916) 373-3710
 (916) 373-5471 FAX



October 20, 2016

Tria Belcourt, Owner and Principal Archaeologist
 Material Culture Consulting

Sent by E-mail: tria@materialcultureconsulting.com

RE: Proposed Brodiaea Industrial Development Project, Community of Moreno Valley; Riverside East and Sunnymead USGS Quadrangles, Riverside County, California

Dear Ms. Belcourt:

Attached is a contact list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

Our records indicate that the lead agency for this project has not requested a Native American Consultation List for the purposes of formal consultation. Lists for cultural resource assessments are different than consultation lists. Please note that the intent of the referenced codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
 - Any report that may contain site forms, site significance, and suggested mitigation measures.
 - All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.
 3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission.
 4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
 5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

The results of these searches and surveys should be included in the "Tribal Cultural Resources" subsection of the Cultural Resources section of the environmental document submitted for review.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

**Native American Heritage Commission
Native American Contact List
Riverside County
10/20/2016**

**Agua Caliente Band of Cahuilla
Indians**

Jeff Grubbe, Chairperson
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA, 92264 Luiseno
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Ewiiapaayp Tribal Office

Michael Garcia, Vice Chairperson
4054 Willows Road Kumeyaay
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaalg@leaningrock.net

**Agua Caliente Band of Cahuilla
Indians**

Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA, 92264 Luiseno
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Ewiiapaayp Tribal Office

Robert Pinto, Chairperson
4054 Willows Road Kumeyaay
Alpine, CA, 91901
Phone: (619)445-6315
Fax: (619)445-9126

**Augustine Band of Cahuilla
Mission Indians**

Amanda Vance, Chairperson
P.O. Box 846 Cahuilla
Coachella, CA, 92236
Phone: (760)398-4722
Fax: (760)369-7161

Jamul Indian Village

Erica Pinto, Chairperson
P.O. Box 612 Kumeyaay
Jamul, CA, 91935
Phone: (619)669-4785
Fax: (619)669-4817

**Cabazon Band of Mission
Indians**

Doug Welmas, Chairperson
84-245 Indio Springs Parkway Cahuilla
Indio, CA, 92203
Phone: (760)342-2593
Fax: (760)347-7880

**La Posta Band of Mission
Indians**

Gwendolyn Parada, Chairperson
8 Crestwood Road Kumeyaay
Boulevard, CA, 91905
Phone: (619)478-2113
Fax: (619)478-2125
LP13boots@aol.com

Cahuilla Band of Indians

Luther Salgado, Chairperson
52701 U.S. Highway 371 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

**La Posta Band of Mission
Indians**

Javaughn Miller, Tribal
Administrator
8 Crestwood Road Kumeyaay
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

Campo Band of Mission Indians

Ralph Goff, Chairperson
36190 Church Road, Suite 1 Kumeyaay
Campo, CA, 91906
Phone: (619)478-9046
Fax: (619)478-5818
rgoff@campo-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Brodiaea Industrial Development Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
10/20/2016**

**Los Coyotes Band of Mission
Indians**

John Perada, Environmental
Director
P. O. Box 189 Cahuilla
Warner Springs, CA, 92086
Phone: (760) 782 - 0712
Fax: (760) 782-2730

**Morongo Band of Mission
Indians**

Denisa Torres, Cultural Resources
Manager
12700 Pumarra Road Cahuilla
Banning, CA, 92220 Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

**Los Coyotes Band of Mission
Indians**

Shane Chapparosa, Chairperson
P.O. Box 189 Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760)782-0711
Fax: (760)782-0712
Chapparosa@msn.com

**Morongo Band of Mission
Indians**

Robert Martin, Chairperson
12700 Pumarra Road Cahuilla
Banning, CA, 92220 Serrano
Phone: (951)849-8807
Fax: (951)922-8146

**Manzanita Band of Kumeyaay
Nation**

Angela Elliott Santos, Chairperson
P.O. Box 1302 Kumeyaay
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

**Ramona Band of Cahuilla
Mission Indians**

John Gomez, Environmental
Coordinator
P. O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramonatribe.com

**Manzanita Band of Kumeyaay
Nation**

Nick Elliott, Cultural Resources
Coordinator
P. O. Box 1302 Kumeyaay
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957
nickmepa@yahoo.com

**Ramona Band of Cahuilla
Mission Indians**

Joseph Hamilton, Chairperson
P.O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951)763-4105
Fax: (951)763-4325
admin@ramonatribe.com

**Mesa Grande Band of Mission
Indians**

Virgil Oyos, Chairperson
P.O Box 270 Kumeyaay
Santa Ysabel, CA, 92070
Phone: (760)782-3818
Fax: (760)782-9092
mesagrandeband@msn.com

**San Fernando Band of Mission
Indians**

John Valenzuela, Chairperson
P.O. Box 221838 Kitanemuk
Newhall, CA, 91322 Serrano
Phone: (760) 885 - 0955 Tataviam
tsen2u@hotmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Brodiaea Industrial Development Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
10/20/2016**

**San Manuel Band of Mission
Indians**

Lee Clauss, Director of Cultural
Resources
26569 Community Center Drive Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

**San Pasqual Band of Mission
Indians**

John Flores, Environmental
Coordinator
P. O. Box 365 Kumeyaay
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
johnf@sanpasqualtribe.org

**San Pasqual Band of Mission
Indians**

Allen E. Lawson, Chairperson
P.O. Box 365 Kumeyaay
Valley Center, CA, 92082
Phone: (760)749-3200
Fax: (760)749-3876
allenl@sanpasqualtribe.org

**Santa Rosa Band of Mission
Indians**

Steven Estrada, Chairperson
P.O. Box 391820 Cahuilla
Anza, CA, 92539
Phone: (951)659-2700
Fax: (951)659-2228

**Serrano Nation of Mission
Indians**

Goldie Walker, Chairperson
P.O. Box 343 Serrano
Patton, CA, 92369
Phone: (909)528-9027

**Soboba Band of Luiseno
Indians**

Joseph Ontiveros, Cultural
Resource Department
P.O. BOX 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951)663-5279
Fax: (951)654-4198
jontiveros@soboba-nsn.gov

**Soboba Band of Luiseno
Indians**

Carrie Garcia, Cultural Resources
Manager
P. O. Box 487 Cahuilla
San Jacinto, CA, 92583 Luiseno
Phone: (951)654-2765
Fax: (951)654-4198
carrieg@soboba-nsn.gov

**Soboba Band of Luiseno
Indians**

Rosemary Morillo, Chairperson
P. O. Box 487 Cahuilla
San Jacinto, CA, 92583 Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
rmorillo@soboba-nsn.gov

**Sycuan Band of the Kumeyaay
Nation**

Cody J. Martinez, Chairperson
1 Kwaaypaay Court Kumeyaay
El Cajon, CA, 92019
Phone: (619)445-2613
Fax: (619)445-1927
ssilva@sycuan-nsn.gov

**Sycuan Band of the Kumeyaay
Nation**

Lisa Haws, Cultural Resources
Manager Kumeyaay
1 Kwaaypaay Court
El Cajon, CA, 92019
Phone: (619) 312 - 1935

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Brodiaea Industrial Development Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
10/20/2016**

***Torres-Martinez Desert Cahuilla
Indians***

Michael Mirelez, Cultural
Resource Coordinator
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760)399-0022, Ext. 1213
Fax: (760)397-8146
mmirelez@tmdci.org

***Viejas Band of Kumeyaay
Indians***

Robert J. Welch, Chairperson
1 Viejas Grade Road Kumeyaay
Alpine, CA, 91901
Phone: (619)445-3810
Fax: (619)445-5337
jhagen@viejas-nsn.gov

***Viejas Band of Kumeyaay
Indians***

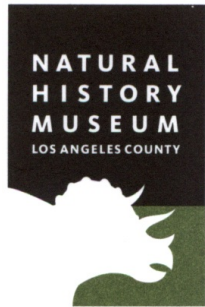
Julie Hagen,
1 Viejas Grade Road Kumeyaay
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337
jhagen@viejas-nsn.gov

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Brodiaea Industrial Development Project, Riverside County.

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org



Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

3 November 2016

Material Culture Consulting
342 Cucamonga Avenue
Claremont, CA 91711

Attn: Tria Belcourt, Owner and Principal Archaeologist

re: Paleontological resources for the proposed Brodiaea Project, in Moreno Valley, Riverside County, project area

Dear Tria:

I have conducted a thorough check of our paleontology collection records for the locality and specimen data for the proposed Brodiaea Project, in Moreno Valley, Riverside County, project area as outlined on the portion of the Sunnymead USGS topographic quadrangle map that you sent to me via e-mail on 17 October 2016. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby from sedimentary deposits similar to those that may occur subsurface in the proposed project area.

Surface deposits in the entire proposed project area consist of younger Quaternary alluvial fan deposits, derived from the more elevated terrain to the north. These sedimentary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they may be underlain by finer-grained older Quaternary deposits that do contain significant vertebrate fossils. Our closest vertebrate fossil locality from somewhat similar deposits is LACM 4540, from the gravel pits just west of Jack Rabbit Trail east-southeast of the proposed project area on the eastern side of the San Jacinto Valley, that produced a specimen of fossil horse, *Equus*.

Shallow excavations in younger Quaternary Alluvium in the proposed project area are unlikely to uncover significant vertebrate fossil remains. Deeper excavations in the proposed project area that extend down into older Quaternary deposits, however, may well encounter

significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

**GEOTECHNICAL INVESTIGATION
PROPOSED COMMERCIAL/INDUSTRIAL
DEVELOPMENT**

Centerpointe Business Park
Graham Street and Cactus Avenue
Moreno Valley, California
for
Ridge Property Trust

confidential
Angela Kane
ProLogis
Mar 15, 2015 13:30

Southern California Geotechnical

INC.

Ridge Property Trust
 201 Covina Avenue
 Suite 8
 Long Beach, California 90803

August 15, 2005
 Project No. 05G212-1

Attention: Mr. Dennis Rice
 President

Subject: **Geotechnical Investigation**
 Proposed Commercial/Industrial Development
 Centerpointe Business Park
 Graham Street and Cactus Avenue
 Moreno Valley, California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

Southern California Geotechnical, Inc.


 John A. Seminara, GE 2294
 Principal Engineer




 Gregory K. Mitchell, GE 2364
 Principal Engineer

Distribution: (6) Addressee

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Site Preparation

- Initial site preparation should include stripping of the existing sparse grass and weed growth.
- The proposed building areas are underlain by a surficial layer of dry to damp, porous, potentially collapsible soils, extending to depths of 2 to 3± feet.
- Remedial grading is considered warranted at this site, to remove and recompact the potentially collapsible soils. The recommended grading will provide a subgrade suitable for support of the foundations and floor slabs of the new structures.
- The existing soils within the proposed building pad areas should be overexcavated to a depth of 2 feet below existing grade and to a depth of at least 2 feet below proposed building pad subgrade elevations. The foundation influence zones should be overexcavated to a depth of 2 feet below proposed foundation bearing grade.
- Following evaluation of the subgrade soils by the geotechnical engineer, the exposed soils should be scarified, moisture conditioned as necessary and recompact. The resulting soils may be replaced as compacted structural fill.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 3,000 psf maximum allowable soil bearing pressure.
- Reinforcement consisting of at least two (2) No. 5 rebars (1 top and 1 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slabs

- Conventional Slab-on-Grade, 5 inches thick.
- Reinforcement is not required with respect to geotechnical conditions. The actual floor slab reinforcement should be determined by the structural engineer, based on the imposed slab loading.

Pavements

ASPHALT PAVEMENTS					
Materials	Thickness (inches)				
	Auto Parking (TI = 4.0)	Auto Drive Lanes (TI = 5.0)	Light Truck Traffic (TI = 6.0)	Moderate Truck Traffic (TI = 7.0)	Heavy Truck Traffic (TI = 8.0)
Asphalt Concrete	2½	3	3½	4	4½
Aggregate Base	3	4	5½	7	9
Compacted Subgrade (90% minimum compaction)	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS				
Materials	Thickness (inches)			
	Auto Parking & Drives (TI = 5.0)	Light Truck Traffic (TI = 6.0)	Moderate Truck Traffic (TI = 7.0)	Heavy Truck Traffic (TI = 8.0)
PCC	5	5	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

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2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 05P273, dated June 21, 2005. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

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3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located north of Cactus Avenue, south of Alessandro Boulevard, west of Heacock Street, and east of Frederick Street, in the city of Moreno Valley, California. The general location of the site is illustrated on the Site Location Map, included as Plate 1 in Appendix A of this report.

The subject site consists of an irregular-shaped parcel approximately 126± acres in size. The site is currently vacant and undeveloped. Ground surface cover consists of exposed soil with negligible grass and weed growth.

Topographic information was obtained from a tentative parcel map prepared by Huitt-Zollars, Inc. Site topography generally slopes downward from north to south. The elevation along the northern boundary of the site is approximately 1565± feet msl (mean sea level). Topography drops gently to the south, at an inclination averaging 1 percent, to elevations of 1550± feet msl along the southern boundary.

3.2 Proposed Development

Preliminary project information was obtained from a site plan provided by Hill Pinckert Architects (HPA). This plan indicates that the proposed development will consist of eight (8) new commercial/industrial buildings. These buildings will range in size from 80,862± ft² to 779,016± ft². The buildings are assumed to be single story structures of concrete tilt-up construction, possibly including small mezzanines. The remainder of the site will be developed with asphaltic concrete pavements, decorative flatwork, and landscaped areas. The buildings will incorporate significant areas of truck loading docks. These areas are expected to be paved with Portland cement concrete pavements.

Detailed structural information is not currently available. Based on the assumed construction, maximum column and wall loads are estimated to be 80 kips and 4 kips per foot, respectively. We assume that the proposed buildings will not incorporate any significant amount of below grade construction.

Based on the topographic information on the tentative parcel map prepared by Huitt-Zollars Inc., and assuming a relatively balanced site, maximum cuts and fills of 10± feet are expected to be necessary within the proposed building areas, to create the new building pads. However, this estimate is exclusive of site preparation and

overexcavation requirements. It is recommended that the preliminary grading plans be provided to this office for review when they become available.

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of thirty (30) borings advanced to depths of 5 to 30± feet below currently existing site grades. All of the borings were logged during excavation by a member of our staff.

The borings were advanced with hollow-stem augers, by a truck-mounted drilling rig. Representative bulk and in-situ soil samples were taken during drilling. Relatively undisturbed in-situ samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Alluvium

The soils observed in the exploratory borings at this site consist of native alluvial sands and silts. These soils are generally comprised of dry to damp and damp to moist, medium dense to very dense, orange brown, gray brown, and red brown silty to clayey sands, silty fine sands, and fine sandy silts extending to depths of 30± feet. Occasional stiff to hard fine sandy clays were encountered in several of the borings.

Groundwater

No free water was encountered during the drilling of the borings. In addition, delayed readings taken at the time of boring completion did not identify any free water. Based on the lack of any water within the borings, and the moisture contents of the recovered

soil samples, the static water table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

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5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

In-situ Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-12 in Appendix C of this report.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with Uniform Building Code (UBC) Standard 18-2. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50 ± 1 percent saturation and then loaded with a surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water, and allowed to swell against

the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

<u>Sample Identification</u>	<u>Expansion Index</u>	<u>Expansive Potential</u>
B-2 @ 0 to 5 feet	0	Very Low
B-5 @ 0 to 5 feet	0	Very Low
B-11 @ 0 to 5 feet	9	Very Low
B-17 @ 0 to 5 feet	11	Very Low

Soluble Sulfates

Representative samples of the near-surface soils have been submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

<u>Sample Identification</u>	<u>Soluble Sulfates (%)</u>	<u>Sulfate Classification</u>
B-2 @ 0 to 5 feet	0.006	Negligible
B-17 @ 0 to 5 feet	0.003	Negligible
B-30 @ 0 to 5 feet	0.002	Negligible

R-value

The R-(resistance) value was determined for representative soils samples taken from proposed parking areas, in accordance with CA Test Method 301. This test provides a measure of the pavement support characteristics of the soils, and is used in the pavement thickness design procedure. The results of the R-value testing are as follows:

<u>Sample Identification</u>	<u>R-Value</u>
B-8 @ 0 to 5 feet	57
B-12 @ 0 to 5 feet	34
B-25 @ 0 to 5 feet	44
B-27 @ 0 to 5 feet	39

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations. The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site specific seismic hazards study was beyond the scope of this geotechnical investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, the possibility of significant fault rupture on the site is considered to be low.

Seismic Design Parameters

The proposed development must be designed in accordance with the requirements of the latest edition of the Uniform Building Code (UBC). The UBC provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, seismic zoning, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the seismic zone, soil profile, and the proximity of known faults with respect to the subject site.

The 1997 UBC Design Parameters have been generated using UBCSEIS, a computer program published by Thomas F. Blake (January 1998). The table below is a compilation of the data provided by UBCSEIS, and represents the largest design values presented by each type of fault. A copy of the output generated from this program is included in Appendix E of this report. A copy of the Design Response Spectrum, as

generated by UBCSEIS is also included in Appendix E. Based on this output, the following parameters may be utilized for the subject site:

- Nearest Type A Fault: San Andreas-Southern (26 km)
- Nearest Type B Fault: San Jacinto-San Jacinto Valley (9 km)
- Soil Profile Type: S_D
- Seismic Zone Factor (Z): 0.40
- Seismic Coefficient (C_a): 0.44
- Seismic Coefficient (C_v): 0.66
- Near-Source Factor (N_a): 1.0
- Near-Source Factor (N_v): 1.0

Liquefaction

The California Geologic Survey (CGS) has not yet conducted detailed seismic hazards mapping in the area of the subject site. However, the subject site is not located in an area that is known to possess liquefiable soils. The encountered soil conditions are not considered to be conducive to liquefaction. These conditions consist of medium dense to dense well graded alluvial soils with no indication of the presence of a static water table within the upper 30± feet. Furthermore, the long term static water table is not expected to exist within the upper 50 feet of the subsurface profile at any time during the life of the proposed structures. In addition, the subject site is not located within a liquefaction hazard zone, as defined by the County of Riverside. Based on these conditions, liquefaction is not considered to be a significant design concern for this project.

6.2 Geotechnical Design Considerations

General

The proposed building areas are generally underlain by dry, occasionally slightly porous, potentially collapsible soils, extending to depths of 2 to 3± feet. Some areas of lower strength alluvial soils extending to depths of 4 to 5± were also observed in localized areas of the site. The native soils identified at greater depths generally possess slightly increased moisture contents, less porosity, and dense to very dense relative densities. Based on this subsurface profile, it is recommended that remedial grading be performed within the new building areas in order to remove and replace the existing potentially collapsible soils, as well as to mitigate any cut/fill transitions which may be created by grading to achieve relatively level pads. The recommended grading will provide subgrades suitable for support of the foundations and floor slabs of the new structures.

Settlement

Laboratory testing indicates that the near surface soils extending to depths of 2 to 3± feet possess a potential for moderate consolidation when exposed to load increases in the range of those that will be exerted by the foundations of the new structures. The samples also exhibited a moderate collapse potential. It is therefore recommended that remedial grading be performed to remove and replace these soils as compacted structural fill. The results of the consolidation testing indicate that the underlying native soils are not susceptible to significant collapse or consolidation. Following completion of the recommended grading, the post-construction settlements are expected to be within tolerable limits.

Expansion

Laboratory testing performed on a representative sample of the near surface soils indicates that these materials possess a very low expansion potential (EI = 0 to 11). The foundation and floor slab design recommendations contained within this report are made in consideration of the expansion index test results. It is recommended that additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pads.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected samples of the on-site soils contain negligible concentrations of soluble sulfates, in accordance with Uniform Building Code (UBC) and Portland Cement Association (PCA) guidelines. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building areas.

Shrinkage/Subsidence

Based on the results of the laboratory testing, removal and recompaction of the near surface native alluvial soils is estimated to result in an average shrinkage of 10 to 15± percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1± feet. This estimate may be used for grading in areas that are underlain by native alluvial soils.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependant on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

No grading or foundation plans were available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Initial site preparation should include stripping of any surficial vegetation and/or organic materials which may develop prior to initiation of construction activities at the site. Based on conditions encountered at the time of the subsurface exploration, stripping is not expected to be necessary. The actual extent of site stripping should be determined by the geotechnical engineer, based on the organic content and the stability of the materials encountered.

Treatment of Existing Soils: Building Pads

It is recommended that remedial grading be performed within the proposed building areas to remove and replace the portion of the near surface native soils which has been determined to be dry, slightly porous, and possess a potential for collapse.

It is recommended that the existing soils within the proposed building areas be overexcavated to a depth of at least 2 feet below existing grade and to a depth of 2 feet below proposed building pad subgrade elevations. Within the influence zones of the new foundations, the overexcavation depth should also be sufficient to provide at least 2 feet of compacted fill below the proposed foundation bearing grades. Based on some lower strength alluvial soils extending to depths of 4 to 5± observed in localized areas of the site, some areas of deeper overexcavation will be necessary where these soils are encountered at the base of the overexcavation. The excavation areas should extend at least 5 feet beyond the building perimeters. If the proposed structures incorporate any exterior columns, (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the building areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new

structures. This evaluation should include proofrolling and probing to identify any soft, loose or otherwise unstable soils that must be removed. Soils suitable to serve as the structural fill subgrade should consist of either bedrock or very dense alluvial soils that possess an in-situ dry density equal to at least 85 percent of the ASTM D-1557 maximum dry density. Some localized areas of deeper excavation may be required if loose, porous, or low density soils are encountered at the bottom of the overexcavation.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, moisture treated to 2 to 4 percent above optimum, and compacted. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls should be overexcavated to a depth of 2 feet below foundation bearing grade and replaced as compacted structural fill, as discussed above for the proposed building pad. Subgrade soils in areas of non-retaining site walls should also be overexcavated to a depth of 1 foot below proposed bearing grade. In both cases, the overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Parking and Drive Areas

Based on economic considerations, overexcavation of the slightly porous, potentially collapsible soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new parking areas should initially consist of removal of all soils disturbed during stripping and demolition operations. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 2 to 4± percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

The grading recommendations presented above for the proposed parking area assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of potentially collapsible soils. As such, future settlement or heave and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner can not tolerate the risk of such movements, the parking area should be graded in a manner similar to that described for the building area.

Fill Placement

- Fill soils should be placed in thin ($6\pm$ inches), near-horizontal lifts, moisture conditioned to 2 to 4 percent above optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the Uniform Building Code and the requirements of the City of Moreno Valley.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive ($EI < 20$), well-graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the City of Moreno Valley. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Moisture Sensitive Subgrade Soils

Some of the near surface soils possess appreciable silt and/or clay content and will become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Expansive Soils

The near surface on-site soils have been determined to possess a very low expansion potential. However, care should be given to proper moisture conditioning of all building pad subgrade soils to a moisture content of 2 to 4 percent above the Modified Proctor optimum during site grading. All imported fill soils should have very low expansive characteristics. In addition to adequately moisture conditioning the subgrade soils and fill soils during grading, special care must be taken to maintain the moisture content of these soils at 2 to 4 percent above the Modified Proctor optimum. This will require the contractor to frequently moisture condition these soils throughout the grading process, unless grading occurs during a period of relatively wet weather.

Excavation Considerations

Based on the presence of predominantly granular soils near the surface, minor caving of shallow excavations may occur. Flattened excavation slopes may be sufficient to mitigate caving of shallow excavations. Maintaining adequate moisture content within the removed and recompacted fill soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Groundwater

Based on the soil conditions encountered during drilling, the measurements taken within the open boreholes at the completion of drilling, and the in-situ moisture contents of the recovered soil samples, the static groundwater table is considered to exist at a depth greater than 30± feet below grade, at the time of the subsurface exploration. Therefore, groundwater is not expected to impact the proposed grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pads will be underlain by structural fill soils used to replace a portion of the native alluvial soils. These new structural fill soils are expected to extend to depths of at least

2 feet below foundation bearing grades, underlain by existing medium dense to very dense native soils that have been evaluated and approved by the geotechnical engineer. Based on this subsurface profile, the proposed structures may be supported on conventional shallow foundation systems.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 3,000 lbs/ft².
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Two (2) No. 5 rebars (1 top and 1 bottom).
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter foundations be continuous across all exterior doorways. The adjacent exterior flatwork should be doweled into the perimeter foundation in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Within the new building area, soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill or very dense native soils, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to at least 2 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content

of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the foundation subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential settlements of conventional shallow foundation systems designed and constructed in accordance with the recommendations of this report are estimated to be less than 1.0 and 0.5 inches, respectively. The differential movements are assumed to occur over a 20-foot span, resulting in an angular distortion on the order of 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft³
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against suitable compacted structural fill. The maximum allowable passive pressure is 2500 lbs/ft².

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slabs should be prepared in accordance with the recommendations contained in the **Site Grading Recommendations** section of this report. Based on the anticipated grading which will occur at this site, the floors of the new structures may be constructed as conventional slabs-on-grade supported on newly placed structural fill, extending to depths of at least 2 feet below finished pad grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 5 inches
- Minimum slab reinforcement: Not required for geotechnical considerations. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.
- Slab underlayment: 10-mil vapor barrier, overlain by 2 inches of clean sand. Where moisture sensitive floor coverings are not anticipated, the vapor barrier and 2-inch layer of sand may be eliminated.

- Moisture condition the floor slab subgrade soils to 2 to 4± percent above optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.
- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slabs should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Retaining Wall Design and Construction

Although not indicated on the site plan, some small retaining walls may be required to facilitate the new site grades. It is also expected that some retaining walls will be required in the loading dock areas. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters for two different types of wall backfill: on-site soils and imported select granular material. The on-site soils generally consist of silty and clayey sands. Based on their composition, these on-site soils have been assigned a friction angle of 30 degrees. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the base of the retaining wall upwards at an angle of approximately 60 degrees from the heel of the retaining wall.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type	
		Imported Aggregate Base	On-Site Silty and Clayey Sands
Internal Friction Angle (ϕ)		38°	30°
Unit Weight		130 lbs/ft ³	125 lbs/ft ³
Equivalent Fluid Pressure:	Active Condition (level backfill)	30 lbs/ft ³	42 lbs/ft ³
	Active Condition (2h:1v backfill)	44 lbs/ft ³	67 lbs/ft ³
	At-Rest Condition (level backfill)	50 lbs/ft ³	62 lbs/ft ³

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft³. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 2 feet below the proposed bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

It is recommended that a minimum 1 foot thick layer of free-draining granular material (less than 5 percent passing the No. 200 sieve) be placed against the face of the retaining walls. This material should extend from the top of the retaining wall footing to

within 1 foot of the ground surface on the back side of the retaining wall. This material should be approved by the geotechnical engineer. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557-91). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 4-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 8-foot on-center spacing. The weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.
- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the **Site Grading Recommendations** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted native soils. The on-site soils generally consist of silty to clayey sands. The results of laboratory testing of representative samples of the on-site soils indicate R-values ranging from 34 to 57. The subsequent pavement design is based upon an average R-value of 40. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that additional R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS					
Materials	Thickness (inches)				
	Auto Parking (TI = 4.0)	Auto Drive Lanes (TI = 5.0)	Light Truck Traffic (TI = 6.0)	Moderate Truck Traffic (TI = 7.0)	Heavy Truck Traffic (TI = 8.0)
Asphalt Concrete	2½	3	3½	4	4½
Aggregate Base	3	4	5½	7	9
Compacted Subgrade (95% minimum compaction)	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS				
Materials	Thickness (inches)			
	Auto Parking & Drives (TI = 5.0)	Light Truck Traffic (TI = 6.0)	Moderate Truck Traffic (TI = 7.0)	Heavy Truck Traffic (TI = 8.0)
PCC	5	5	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Reinforcing within all pavements should consist of at least heavy welded wire mesh (6x6-W2.9xW2.9 WWF) placed at mid-height in the slab. The maximum joint spacing

within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

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7.0 GENERAL COMMENTS

This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

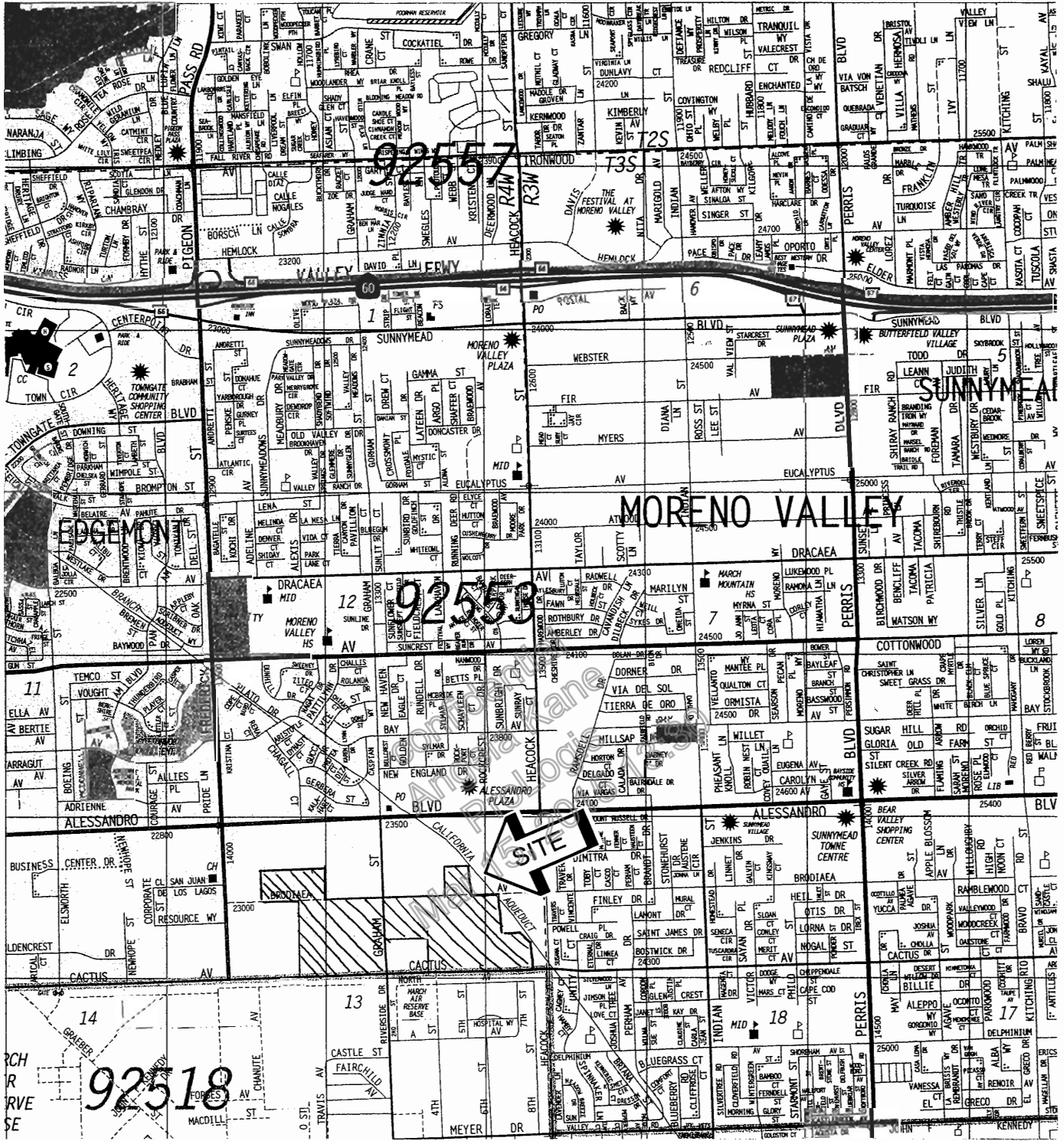
This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A
SITE LOCATION MAP
BORING LOCATION PLAN

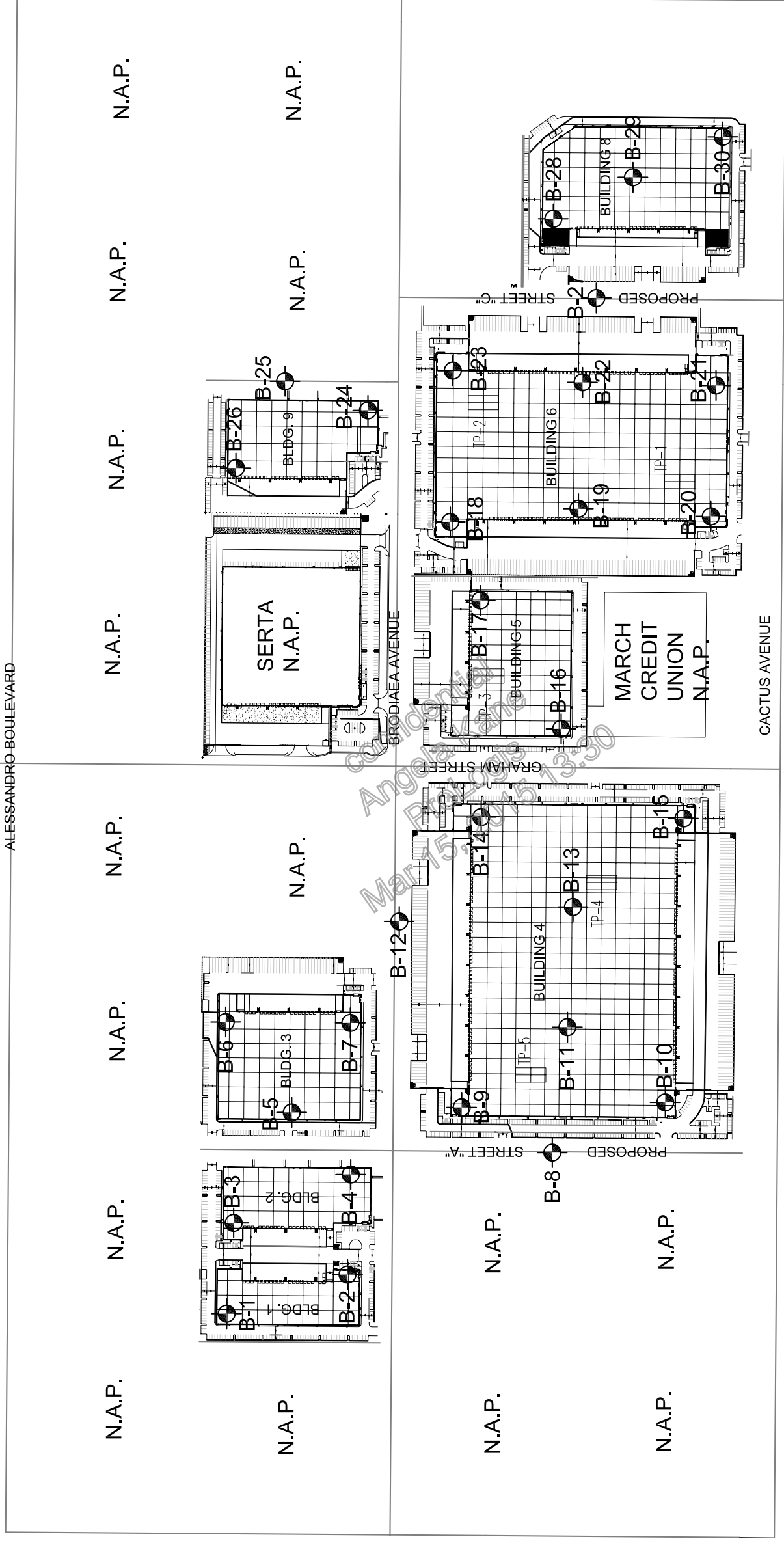
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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))




SOURCE: SAN BERNARDINO COUNTY
THOMAS GUIDE, 2004

SITE LOCATION MAP	
CENTERPOINTE BUSINESS PARK MORENO VALLEY, CALIFORNIA	
1" = 2400'	Southern California Geotechnical INC. 1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398
DRAWN: DRK	
CHKD: JAS	
SCG PROJECT 05G212-1	
PLATE 1	



GEOTECHNICAL LEGEND

-  Approximate Boring Location
-  N.A.P. Not a Part

NOTE: BASE MAP PROVIDED BY HUITT ZOLLARS INC.








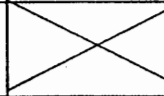


BORING LOCATION PLAN	
CENTERPOINTE BUSINESS PARK	
MORENO VALLEY, CALIFORNIA	
SCALE: 1" = 200'	
DRAWN: JAS	
CHKD: GKM	
SOG PROJECT	056212-1
PLATE 2	
Southern California Geotechnical	
1280 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398	

APPENDIX B

BORING LOGS

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BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVER: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHEBLY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

- DEPTH:** Distance in feet below the ground surface.
- SAMPLE:** Sample Type as depicted above.
- BLOW COUNT:** Number of blow required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.
- POCKET PEN.:** Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.
- GRAPHIC LOG:** Graphic Soil Symbol as depicted on the following page.
- DRY DENSITY:** Dry density of an undisturbed or relatively undisturbed sample.
- MOISTURE CONTENT:** Moisture content of a soil sample, expressed as a percentage of the dry weight.
- LIQUID LIMIT:** The moisture content above which a soil behaves as a liquid.
- PLASTIC LIMIT:** The moisture content above which a soil behaves as a plastic.
- PASSING #200 SIEVE:** The percentage of the sample finer than the #200 standard sieve.
- UNCONFINED SHEAR:** The shear strength of a cohesive soil sample, as measured in the unconfined state.

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		CLEAN SANDS (LITTLE OR NO FINES)		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES	
	FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	CLEAN SILTS (LITTLE OR NO FINES)		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CLAYEY SILTS (APPRECIABLE AMOUNT OF FINES)		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			CLAYEY SILTS (APPRECIABLE AMOUNT OF FINES)		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
		SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	CLAYEY SILTS (APPRECIABLE AMOUNT OF FINES)		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
CLAYEY SILTS (APPRECIABLE AMOUNT OF FINES)				CH	INORGANIC CLAYS OF HIGH PLASTICITY	
HIGHLY ORGANIC SOILS		CLAYEY SILTS (APPRECIABLE AMOUNT OF FINES)		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/20/05				WATER DEPTH: Dry				
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 18 feet				
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion				
FIELD RESULTS					LABORATORY RESULTS							
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					SURFACE ELEVATION: MSL							
	X	20			ALLUVIUM: Orange Brown Silty fine Sand, medium dense-dry to damp	109	6					
	X	28			ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, medium dense-moist	104	14					
5	X	37				111	15					
	X	26			ALLUVIUM: Gray Brown to Orange Brown Clayey fine to coarse Sand, medium dense-damp	106	8					
10	X	47				119	9					
	X	50/5"			ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, very dense-moist		13					
15	X											
	X	80					14					
20	X											
					Boring Terminated at 20'							

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TBL 05G212.GPJ SOCALGEO.GDT 8/15/05

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JOB NO.: 05G212				DRILLING DATE: 7/20/05				WATER DEPTH: Dry									
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 12 feet									
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion									
FIELD RESULTS					LABORATORY RESULTS												
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS	
					SURFACE ELEVATION: MSL												
	X	24			<u>ALLUVIUM:</u> Brown to Gray Brown Clayey fine to medium Sand, trace calcareous nodules, medium dense to dense-damp to moist						10						EI = 0 @ 0 to 5'
5	X	50/4"									10						
	X	50/5"			<u>ALLUVIUM:</u> Orange Brown Clayey fine Sand, some Silt, dense to very dense-damp to moist						11						
10	X	39									8						
15	X	37			Boring Terminated at 15'						11						

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TBL 05G212.GPJ SOCALGEO.GDT 8/15/05

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
5	X	41			ALLUVIUM: Red Brown Clayey fine to medium Sand, medium dense to dense-damp		7				
	X	36					8				
10	X	43			ALLUVIUM: Orange Brown Clayey fine to medium Sand, dense-damp		6				
	X	32					8				
15	X	40			ALLUVIUM: Brown to Orange Brown Silty fine Sand, some Clay, dense-damp		9				
Boring Terminated at 15'											

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TBL 05G212.GPJ SOCALGEO.GDT 8/15/05

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212	DRILLING DATE: 7/20/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 19 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	13			ALLUVIUM: Red Brown Clayey fine Sand, medium dense-damp	101	5				
	X	57			ALLUVIUM: Brown Clayey fine Sand, some Silt, very dense-moist	103	13				
5	X	21			ALLUVIUM: Red Brown to Gray Brown fine Sandy Silt, some Clay, loose to medium dense-moist	110	12				
	X	7				98	17				
10	X	37				114	16				
15	X	34			ALLUVIUM: Gray Brown to Brown Clayey fine to medium Sand, some Iron oxide staining, dense-moist		21				
20	X	46					13				
Boring Terminated at 20'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
JOB NO.: 05G212					DRILLING DATE: 7/19/05					WATER DEPTH: Dry	
PROJECT: Centerpointe Business Park					DRILLING METHOD: Hollow Stem Auger					CAVE DEPTH: 14 feet	
LOCATION: Moreno Valley, California					LOGGED BY: Daryl Kas					READING TAKEN: At Completion	
SURFACE ELEVATION: MSL											
12	X	12			ALLUVIUM: Brown Clayey fine Sand, some Silt, medium dense-damp to moist		10				EI = 0 @ 0 to 5'
12	X	12					10				
5	X				ALLUVIUM: Gray Brown Clayey fine Sand, some Silt, medium dense-damp to moist		11				
14	X										
16	X				ALLUVIUM: Gray Brown Clayey fine Sand, with Iron oxide staining, medium dense-damp		8				
10	X										
30	X				ALLUVIUM: Orange Brown Clayey fine to medium Sand, dense-damp to moist		11				
15	X										
Boring Terminated at 15'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
5	55/5"	50/5"		[Diagonal Hatching]	<u>ALLUVIUM</u> : Light Brown to Orange Brown Silty to Clayey fine Sand, dense to very dense-damp	93	4				
10	90	34		[Diagonal Hatching]	<u>ALLUVIUM</u> : Brown fine to medium Clayey Sand, dense-damp	100	11				
10	43			[Dotted Pattern]	<u>ALLUVIUM</u> : Brown Silty fine Sand, some Clay, dense-moist	115	10				
15	30			[Diagonal Hatching]	<u>ALLUVIUM</u> : Orange Brown fine Clayey Sand, trace Silt, dense-damp	122	9				
20	32			[Dotted Pattern]	<u>ALLUVIUM</u> : Orange Brown fine Sand, trace Silt, dense-moist	110	14				
Boring Terminated at 20'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	36			ALLUVIUM: Red Brown Clayey fine Sand, trace medium Sand, dense-damp	106	9				
	X	28			ALLUVIUM: Orange Brown Clayey fine Sand, trace Silt, dense-damp	108	10				
5	X	35			ALLUVIUM: Orange Brown Clayey fine to medium Sand, dense-damp	122	9				
	X	75				107	6				
10	X	77			ALLUVIUM: Brown Silty fine Sand, some medium Sand, dense to very dense-damp	119	8				
	X	28			ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, medium dense-moist		14				
15	X				Boring Terminated at 15'						

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212	DRILLING DATE: 7/20/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 5 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	9			ALLUVIUM: Brown Clayey fine Sand, trace Silt, loose to medium dense-damp		7				
	X	25					10				
5					Boring Terminated at 5'						

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	16	16		[Diagonal Hatching]	ALLUVIUM: Dark Brown Clayey fine to medium Sand, medium dense-damp	109	7				
	14	14		[Diagonal Hatching]	ALLUVIUM: Brown Clayey fine Sand, trace Silt, medium dense-damp	112	11				
5	28	28		[Vertical Lines]	ALLUVIUM: Yellow Brown fine Sandy Silt, some Clay, medium dense-moist	115	14				
	36	36		[Vertical Lines]	ALLUVIUM: Brown Silty fine Sand, some Silt, medium dense-damp	116	9				
10	30	30		[Diagonal Hatching]	ALLUVIUM: Gray Brown Clayey fine to medium Sand, medium dense-damp	108	6				
	10	10		[Vertical Lines]	ALLUVIUM: Brown fine Sandy Silt, Some Clay, medium dense-moist		16				
15	57	57		[Diagonal Hatching]	ALLUVIUM: Orange Brown Clayey fine Sand, trace Silt, dense-damp		11				
	20	20		[Diagonal Hatching]							
25	52	52		[Diagonal Hatching]			10				
	25	25		[Diagonal Hatching]							
30	36	36		[Diagonal Hatching]	ALLUVIUM: Orange Brown fine to medium Sand, some Clay, medium dense to very dense-damp		7				
Boring Terminated at 30'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/19/05				WATER DEPTH: Dry				
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 18 feet				
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion				
FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
					SURFACE ELEVATION: MSL							
	X	4			ALLUVIUM: Red Brown Clayey fine Sand, trace medium Sand, loose-damp		9					
	X	4					7					
5	X											
	X	10			ALLUVIUM: Orange Brown fine to medium Sand, trace Silt, medium dense-dry to damp		4					
	X											
	X	39			ALLUVIUM: Orange Brown to Gray Brown Silty fine Sand, some Silt, dense-damp		10					
10	X											
	X	28	2.75		ALLUVIUM: Orange Brown fine to medium Sandy Clay, very stiff-damp		11					
15	X											
	X	50/5"			ALLUVIUM: Orange Brown Silty fine Sand, some Clay, very dense-damp		11					
20	X											
					Boring Terminated at 20'							

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JOB NO.: 05G212				DRILLING DATE: 7/19/05				WATER DEPTH: Dry								
PROJECT: Centerpoint Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 13.5 feet								
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion								
FIELD RESULTS					LABORATORY RESULTS											
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					SURFACE ELEVATION: MSL											
	X	31			ALLUVIUM: Brown Clayey fine Sand, dense-damp						7					EI = 9 @ 0 to 5'
	X	77			ALLUVIUM: Light Orange Brown to Orange Brown Clayey fine Sand, very dense-damp						10					
5	X	63									10					
	X	43			ALLUVIUM: Brown Clayey fine Sand, dense-moist						16					
10	X	19			ALLUVIUM: Gray Brown Silty fine to medium Sand, some Clay, trace Sand, medium dense-damp to moist						9					
15					Boring Terminated at 15'											

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JOB NO.: 05G212					DRILLING DATE: 7/20/05					WATER DEPTH: Dry							
PROJECT: Centerpoint Business Park					DRILLING METHOD: Hollow Stem Auger					CAVE DEPTH: 5 feet							
LOCATION: Moreno Valley, California					LOGGED BY: Daryl Kas					READING TAKEN: At Completion							
FIELD RESULTS					LABORATORY RESULTS												
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS	
					SURFACE ELEVATION: MSL												
	X	12			ALLUVIUM: Brown to Orange Brown to Gray Brown Clayey fine Sand, medium dense to very dense-damp to moist						7						
	X	63									11						
5					Boring Terminated at 5'												

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JOB NO.: 05G212	DRILLING DATE: 7/19/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 17 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS	
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)		UNCONFINED SHEAR (TSF)
SURFACE ELEVATION: MSL												
					ALLUVIUM: Brown Clayey fine Sand, medium dense-dry to damp	99	3					
					ALLUVIUM: Red Brown to Brown Clayey fine to medium Sand, trace coarse Sand, medium dense to very dense-damp	106	6					
5		18				113	8					
		50/3"				128	6					
		56				119	10					
		45										
10		30										
		45					9					
15												
		51			ALLUVIUM: Orange Brown fine Sandy Clay, some Silt, very stiff-damp to moist		10					
20					Boring Terminated at 20'							

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	37			ALLUVIUM: Orange Brown Clayey fine Sand, trace medium Sand, dense-damp	8					
5	X	43				8					
	X	33			ALLUVIUM: Light Orange Brown Clayey fine to medium Sand, dense-damp	7					
10	X	41				8					
15	X	66	4.5+		ALLUVIUM: Orange Brown fine Sandy Clay, some Silt, hard-damp to moist	14					
20	X	43			ALLUVIUM: Orange Brown Silty fine to medium Sand, dense-damp	6					
Boring Terminated at 20'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
30	X	30		[Hatched]	ALLUVIUM: Red Brown Clayey fine to medium Sand, medium dense-dry to damp	102	6				
63	X	63		[Hatched]	ALLUVIUM: Light Orange Brown Clayey fine Sand, trace medium Sand, dense-damp	112	10				
70	X	70		[Hatched]	ALLUVIUM: Brown to Red Brown Clayey fine to medium Sand, medium dense to dense-damp	117	10				
40	X	40		[Hatched]		116	8				
22	X	22		[Hatched]		122	8				
15	X	50/5"		[Dotted]	ALLUVIUM: Orange Brown Silty fine Sand, trace medium Sand, dense-damp		11				
38	X	38		[Dotted]			6				
75	X	75		[Dotted]	ALLUVIUM: Orange Brown Silty fine Sand, some Clay, very dense-damp		10				
63	X	63	4.5+	[Hatched]	ALLUVIUM: Orange Brown Clayey fine Sand to fine Sandy Clay, very dense to hard-damp to moist		11				
Boring Terminated at 30'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	30	X			ALLUVIUM: Light Orange Brown to Brown to Dark Brown Clayey fine to medium Sand, medium dense to dense-dry to damp	113	3				
	45	X				114	5				
5	41	X				105	5				
	25	X			ALLUVIUM: Orange Brown fine Sandy Silt, medium dense-damp ALLUVIUM: Brown Silty fine Sand, medium dense-damp	115	5				
10	30	X			ALLUVIUM: Brown fine Sandy Silt, some Clay, medium dense-damp to moist	121	9				
	12	X			ALLUVIUM: Gray Brown Clayey fine to medium Sand, medium dense-damp to moist		9				
15	60	X			ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, dense-damp to moist		9				
20					Boring Terminated at 20'						

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
					SURFACE ELEVATION: MSL							
	X	9			ALLUVIUM: Brown Clayey fine Sand, loose-damp		7					EI = 11 @ 0 to 5'
5	X	10			ALLUVIUM: Brown Clayey to Silty fine Sand, trace medium Sand, loose to medium dense-damp to moist		7					
	X	9					10					
10	X	64			ALLUVIUM: Orange Brown fine Sandy Silt, trace Clay, trace calcareous nodules/veining, dense to very dense-moist		17					
	X	35					12					
15					Boring Terminated at 15'							

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FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
JOB NO.: 05G212					DRILLING DATE: 7/20/05					WATER DEPTH: Dry	
PROJECT: Centerpointe Business Park					DRILLING METHOD: Hollow Stem Auger					CAVE DEPTH: 22 feet	
LOCATION: Moreno Valley, California					LOGGED BY: Daryl Kas					READING TAKEN: At Completion	
SURFACE ELEVATION: MSL											
27	▲				ALLUVIUM: Brown Clayey fine Sand, medium dense-damp to moist	107	5				
29	▲					107	14				
38	▲	5				116	13				
45	▲				ALLUVIUM: Red Brown Clayey fine to coarse Sand, medium dense-damp	115	5				
33	▲					121	9				
10											
15	▲	81/10"			ALLUVIUM: Orange Brown Silty fine Sand, some Clay, very dense-moist		13				
20	▲				ALLUVIUM: Brown Clayey fine to coarse Sand, very dense-damp		8				
54	▲										
25	▲				ALLUVIUM: Gray Brown to Orange Brown fine Sandy Silt, some Clay, dense-moist		14				
					Boring Terminated at 25'						

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FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	12			ALLUVIUM: Orange Brown Clayey fine Sand, medium dense-dry to damp		5				
	X	12			ALLUVIUM: Red Brown Clayey fine to medium Sand, medium dense-dry to damp		5				
5	X	14					6				
	X	18					4				
10	X	18									
	X	55			ALLUVIUM: Orange Brown Clayey fine to medium Sand, dense-damp to moist		12				
15	X										
Boring Terminated at 15'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/20/05				WATER DEPTH: Dry								
PROJECT: Centerpoint Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 16 feet								
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion								
FIELD RESULTS					LABORATORY RESULTS											
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					SURFACE ELEVATION: MSL											
10					ALLUVIUM: Brown Clayey fine Sand, trace medium Sand, medium dense-damp		7									
11							6									
50/4"					ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, very dense-damp to moist		11									
34					ALLUVIUM: Gray Brown fine Sandy Silt, some Clay, dense-damp to moist		17									
38							18									
43					ALLUVIUM: Gray Brown Clayey fine Sand, dense-damp		8									
20					Boring Terminated at 20'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212	DRILLING DATE: 7/21/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 27.5 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
					SURFACE ELEVATION: MSL							
27	✕				ALLUVIUM: Brown Clayey fine Sand, trace medium Sand, medium dense-dry to damp	122	7					
39	✕		4.5+		ALLUVIUM: Gray Brown fine Sandy Clay, very stiff-damp to moist	98	13					
5	✕	28			ALLUVIUM: Light Gray Brown fine Sandy Silt, medium dense-moist	96	19					
33	✕				ALLUVIUM: Light Gray Brown to Orange Brown Silty fine Sand, some Clay, calcareous nodules and veining, medium dense-moist	89	19					
34	✕					100	12					
10	✕											
17	✕				ALLUVIUM: Orange Brown Clayey fine to coarse Sand, dense to very dense-damp to moist		18					
15	✕											
38	✕						11					
20	✕											
80	✕						9					
25	✕											
51	✕				ALLUVIUM: Orange Brown Silty fine Sand to fine Sandy Silt, trace Clay, very dense-moist		17					
30	✕											
					Boring Terminated at 30'							

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/21/05				WATER DEPTH: Dry				
PROJECT: Centerpoint Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 17 feet				
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion				
FIELD RESULTS					LABORATORY RESULTS						COMMENTS	
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)		UNCONFINED SHEAR (TSF)
SURFACE ELEVATION: MSL												
	22				ALLUVIUM: Brown Clayey fine to medium Sand, medium dense-dry to damp	115	4					
	34				ALLUVIUM: Orange Brown Clayey fine Sand, trace medium Sand, medium dense-damp	99	11					
5	55		4.5+		ALLUVIUM: Brown fine Sandy Clay, some Silt, very stiff-damp	119	12					
	33				ALLUVIUM: Orange Brown Clayey fine to medium Sand, medium dense-damp	107	9					
10	46				ALLUVIUM: Light Orange Brown Silty fine Sand to fine Sandy Silt, trace Clay, dense-damp to moist	119	12					
	58				ALLUVIUM: Orange Brown Clayey fine to medium Sand, very dense-moist		14					
15	56				ALLUVIUM: Gray Brown Silty fine Sand, trace Clay, very dense-damp to moist		12					
20					Boring Terminated at 20'							

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/21/05				WATER DEPTH: Dry									
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 13 feet									
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion									
FIELD RESULTS					LABORATORY RESULTS												
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS	
					SURFACE ELEVATION: MSL												
10	X	10			ALLUVIUM: Brown Clayey fine Sand, trace medium Sand, medium dense-dry to damp					5							
10	X	10								8							
5	X	50/4"			ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, trace medium Sand, dense to very dense-damp to moist					12							
10	X	44								15							
15	X	57			ALLUVIUM: Gray Brown Clayey fine Sand, some Silt, very dense-damp to moist					12							
					Boring Terminated at 15'												

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
					SURFACE ELEVATION: MSL							
	X	14			<u>ALLUVIUM</u> : Brown Clayey fine Sand, medium dense-damp		7					
	X	16			<u>ALLUVIUM</u> : Orange Brown Clayey fine Sand, some Silt, medium dense to dense-damp to moist		12					
5	X						11					
	X	48					16					
10	X	42										
	X	48					10					
15	X				Boring Terminated at 15'							

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/21/05				WATER DEPTH: Dry								
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 4 feet								
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion								
FIELD RESULTS					LABORATORY RESULTS											
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					SURFACE ELEVATION: MSL											
	X	24			ALLUVIUM: Orange Brown to Brown Clayey fine Sand, some Silt, medium dense to very dense-damp						6					
	X	80/4"										11				
5					Boring Terminated at 5'											

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/21/05				WATER DEPTH: Dry				
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 14 feet				
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion				
FIELD RESULTS					LABORATORY RESULTS							
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					SURFACE ELEVATION: MSL							
		14			ALLUVIUM: Brown Clayey fine to medium Sand, some Silt, loose-damp	117	8					
		70			ALLUVIUM: Orange Brown Silty fine Sand, trace medium Sand, dense to very dense-damp to moist	102	9					
5		72				107	12					
		18			ALLUVIUM: Orange Brown Clayey fine to medium Sand, some Silt, medium dense to very dense-damp to moist	102	11					
10		36				119	5					
		67					6					
15												
		60					9					
20												
					Boring Terminated at 20'							

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212				DRILLING DATE: 7/21/05				WATER DEPTH: Dry									
PROJECT: Centerpointe Business Park				DRILLING METHOD: Hollow Stem Auger				CAVE DEPTH: 4 feet									
LOCATION: Moreno Valley, California				LOGGED BY: Daryl Kas				READING TAKEN: At Completion									
FIELD RESULTS					LABORATORY RESULTS												
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION					DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS	
					SURFACE ELEVATION: MSL												
	X	15			<u>ALLUVIUM:</u> Orange Brown to Brown Clayey fine to medium Sand, medium dense to dense-dry to damp						5						
	X	32									8						
5					Boring Terminated at 5'												

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FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	27	5			ALLUVIUM: Brown Clayey fine to medium Sand, slightly porous, loose to medium dense-dry to damp	11	5				
	14					104	7				
	19					112	7				
	15				ALLUVIUM: Orange Brown Silty fine Sand, trace Clay, medium dense-moist	101	15				
	18					106	15				
	53				ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, very dense-moist		15				
	22				ALLUVIUM: Gray Brown Clayey fine Sand, medium dense-moist		20				
	20				Boring Terminated at 20'						

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212	DRILLING DATE: 7/21/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 14 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
SURFACE ELEVATION: MSL												
5		9			ALLUVIUM: Brown Clayey fine Sand, trace Silt, loose to medium dense-dry to damp							
		16			ALLUVIUM: Gray Brown Clayey fine to medium Sand to fine to medium Sandy Clay, very dense to hard-damp	8						
		63	4.5+		ALLUVIUM: Orange Brown Clayey fine Sand, some Silt, very dense-damp to moist	8						
10		50/4"			4							
15		50/5"			5							
					10							
Boring Terminated at 15'												

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

JOB NO.: 05G212	DRILLING DATE: 7/21/05	WATER DEPTH: Dry
PROJECT: Centerpointe Business Park	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 22.5 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS				DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		GRAPHIC LOG	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: MSL											
	X	23			<u>ALLUVIUM:</u> Light Brown to Brown Clayey fine Sand, trace medium Sand, some Silt, medium dense to dense-dry to damp	111	4				
	X	18				101	7				
5	X	34				111	6				
	X	60				106	5				
	X	90			<u>ALLUVIUM:</u> Brown fine Sandy Silt to Silty fine Sand, trace Clay, very dense-dry to damp	109	5				
	X	17			<u>ALLUVIUM:</u> Orange Brown Silty fine Sand, medium dense-dry to damp		3				
15	X	32			<u>ALLUVIUM:</u> Red Brown to Gray Brown Clayey fine to medium Sand, trace Silt, dense-moist		14				
	X	16			<u>ALLUVIUM:</u> Gray Brown fine Sandy Silt, trace Clay, medium dense-moist		23				
25					Boring Terminated at 25'						

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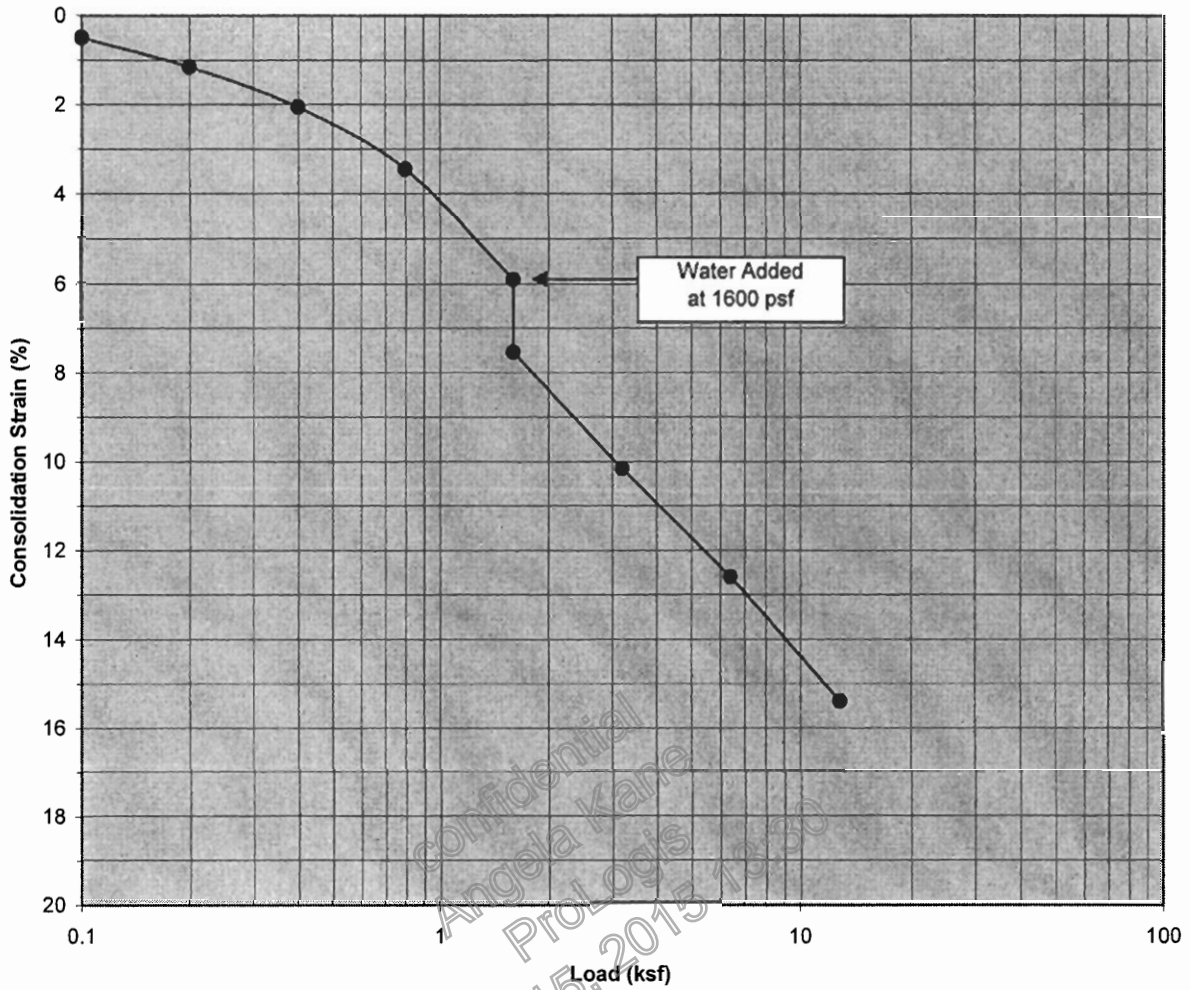
APPENDIX C

LABORATORY TESTING

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown fine Sandy Clay

Boring Number:	B-4	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	1 to 2	Initial Dry Density (pcf)	101.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	119.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.63

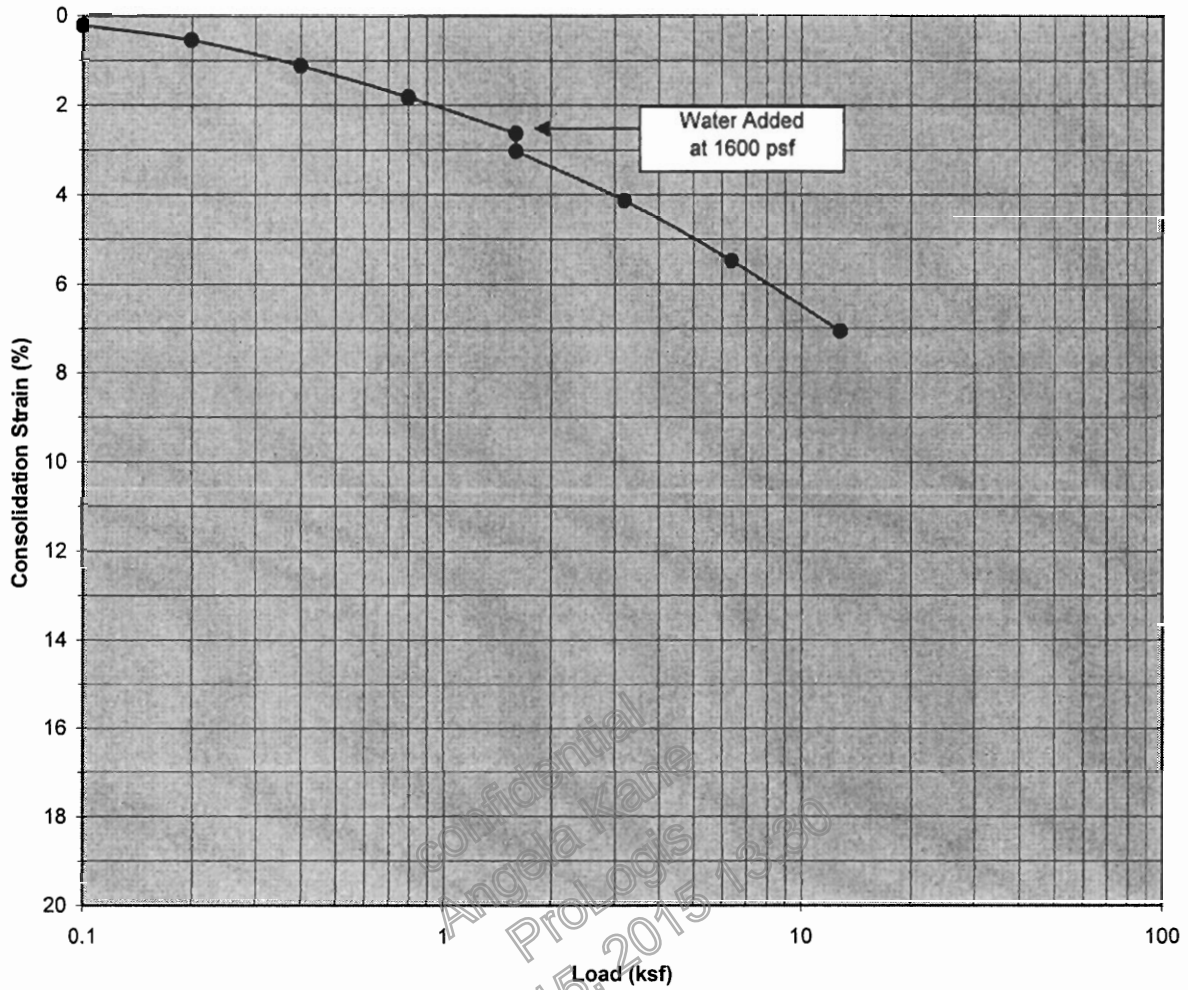
Centerpointe Business Park
 Moreno Valley, California
 Project No. 05G212
PLATE C- 1

Southern California Geotechnical
INC.

1260 North Hancock Street, Suite 101
 Anaheim, California 92807
 Phone: (714) 777-0333 Fax: (714) 777-0398

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown Clayey fine Sand, some Silt

Boring Number:	B-4	Initial Moisture Content (%)	13
Sample Number:	---	Final Moisture Content (%)	20
Depth (ft)	3 to 4	Initial Dry Density (pcf)	104.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	111.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.40

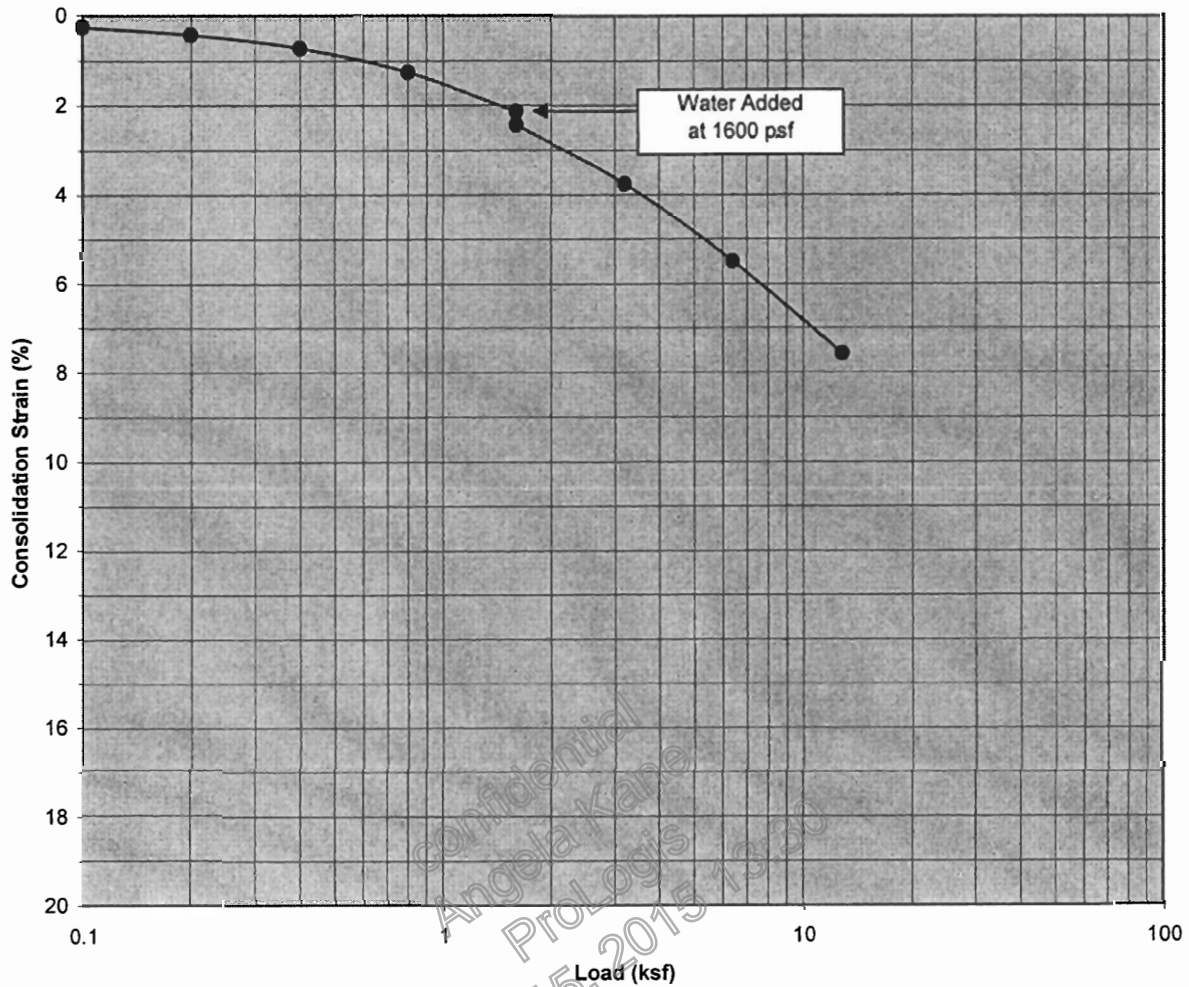
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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown to Gray Brown fine Sandy Silt, some Clay

Boring Number:	B-4	Initial Moisture Content (%)	13
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	5 to 6	Initial Dry Density (pcf)	112.8
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.30

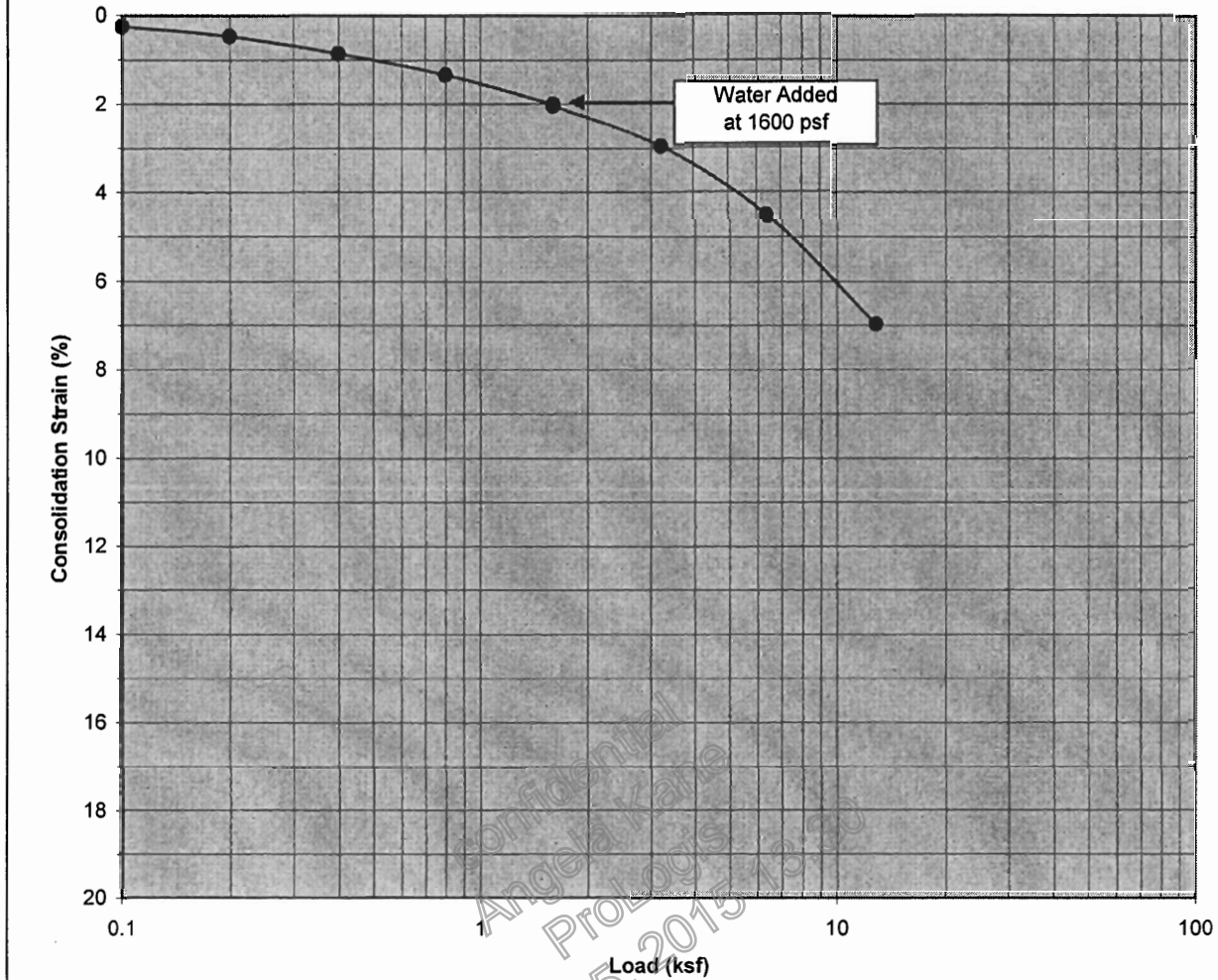
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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown to Gray Brown fine Sandy Silt, some Clay

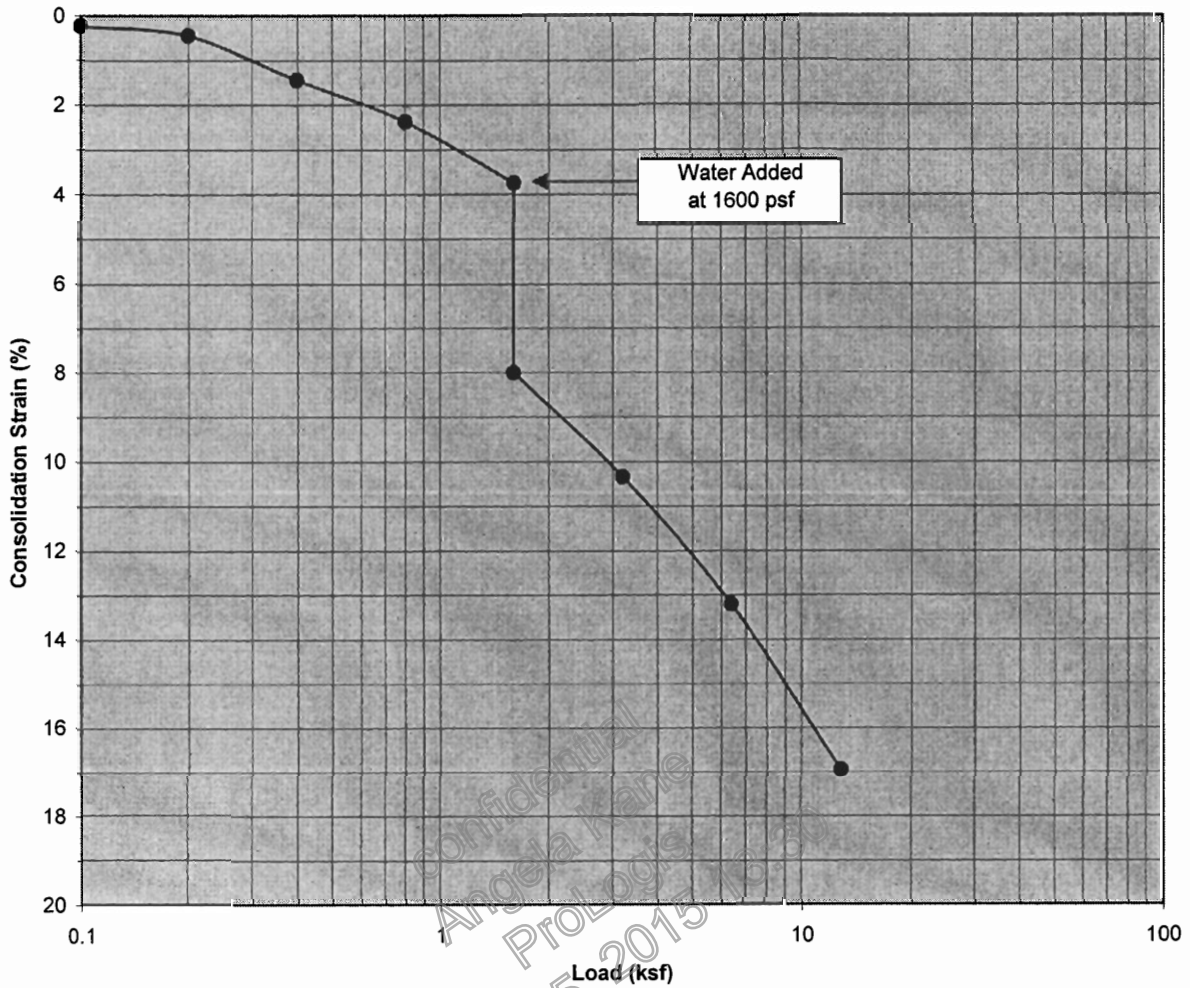
Boring Number:	B-4	Initial Moisture Content (%)	17
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	7 to 8	Initial Dry Density (pcf)	98.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	107.3
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.04

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown Clayey fine to medium Sand

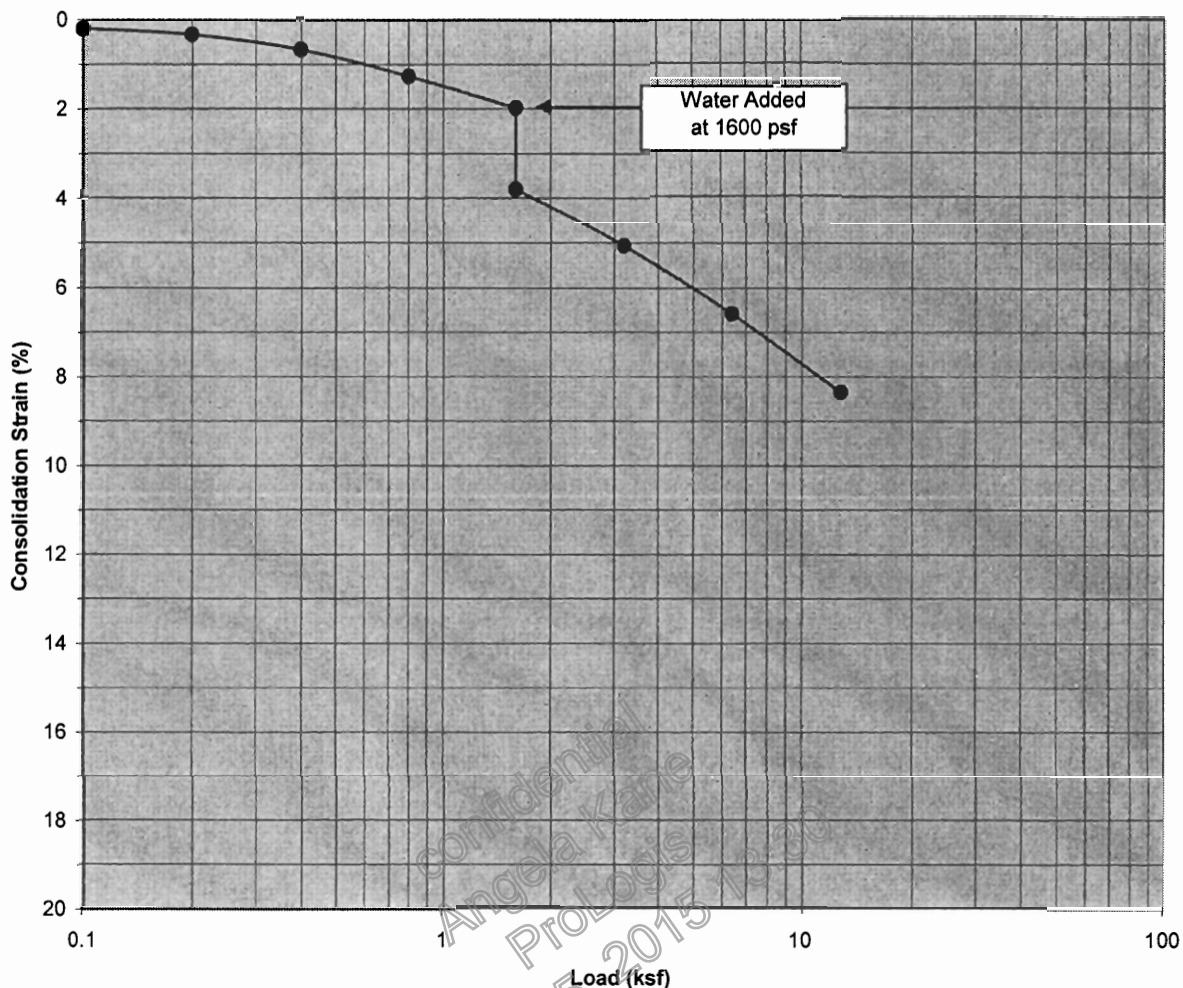
Boring Number:	B-15	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	1 to 2	Initial Dry Density (pcf)	102.6
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	117.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	4.26

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown Clayey fine to medium Sand

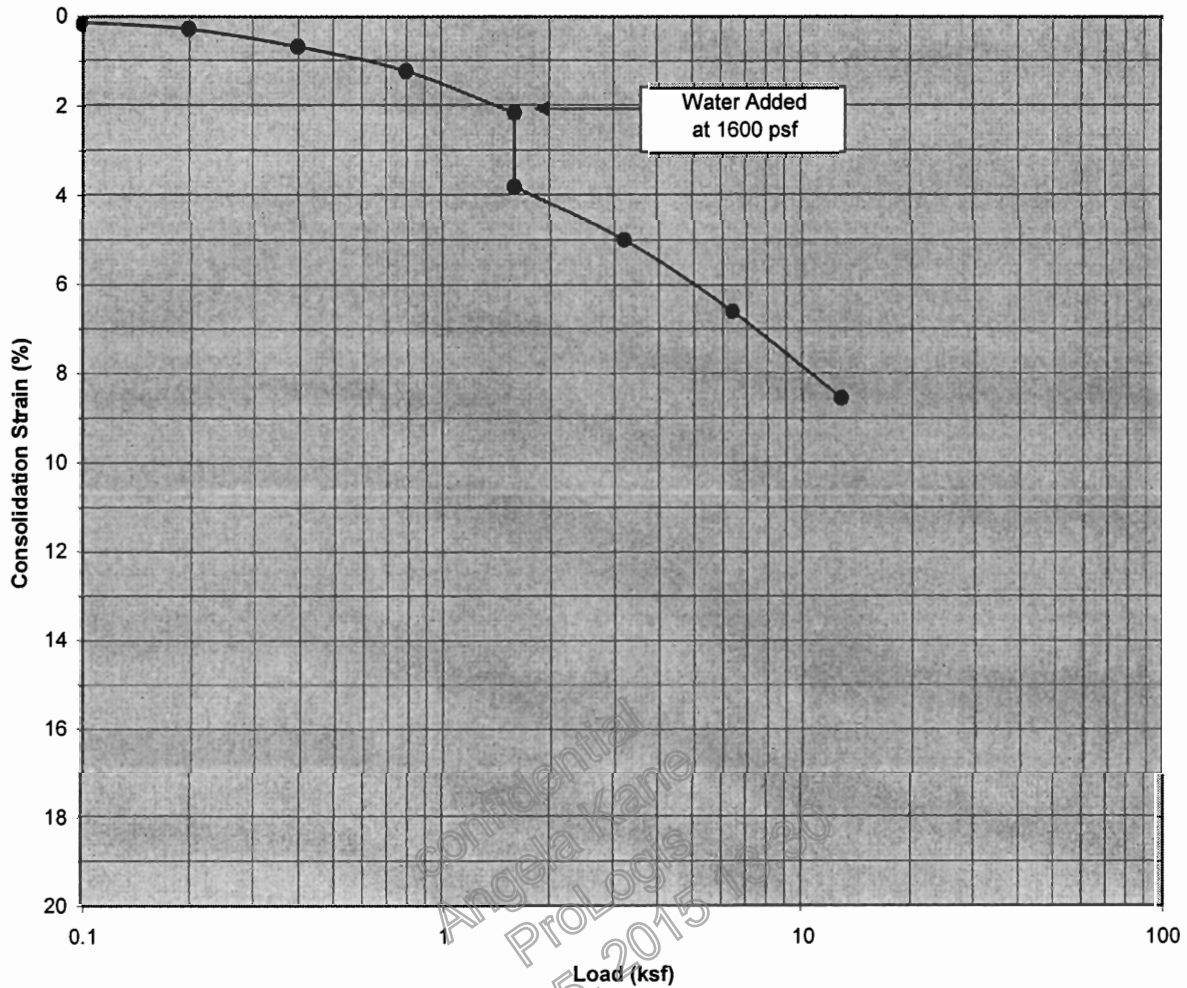
Boring Number:	B-15	Initial Moisture Content (%)	11
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	3 to 4	Initial Dry Density (pcf)	113.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.82

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown to Red Brown Clayey fine to medium Sand

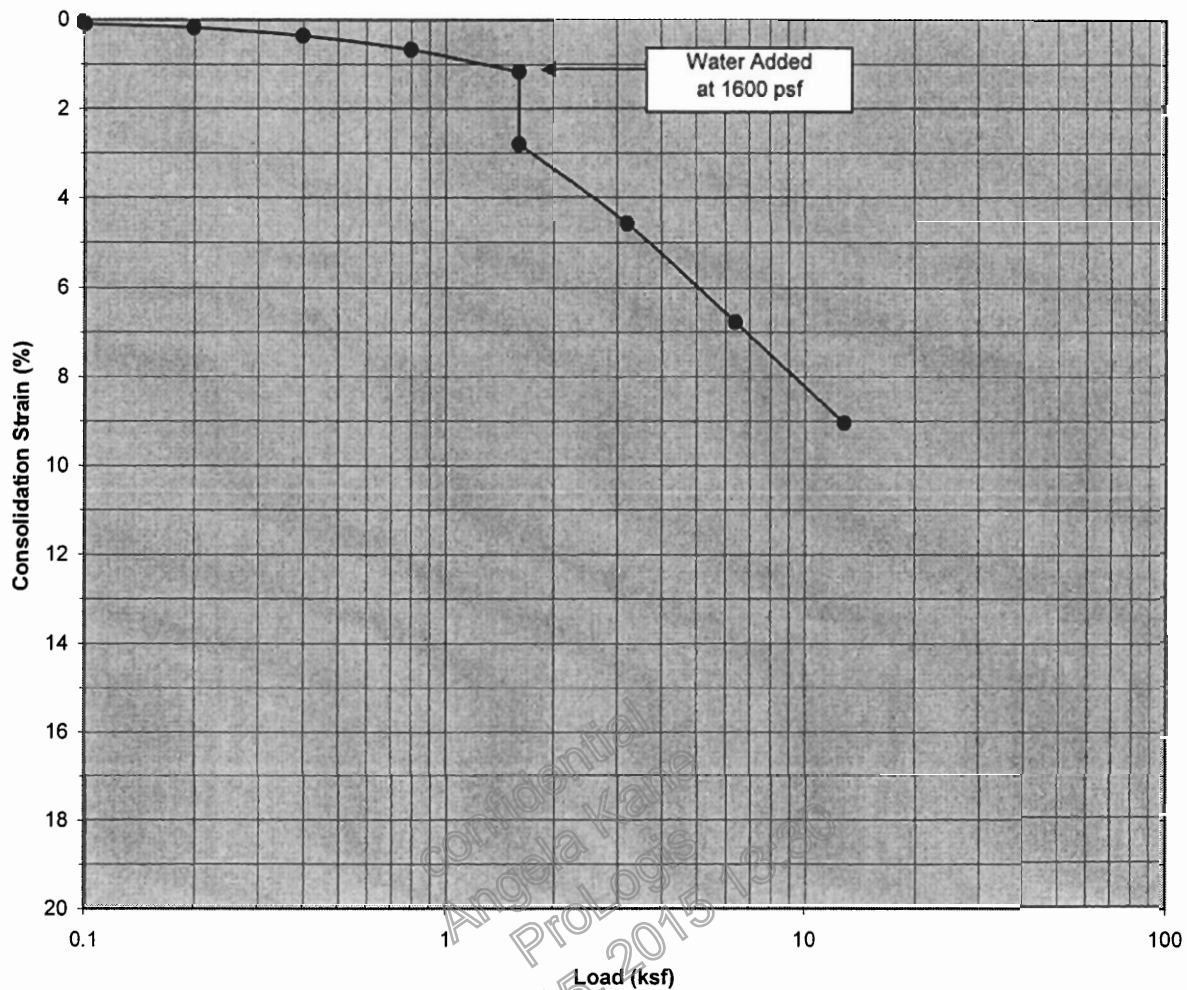
Boring Number:	B-15	Initial Moisture Content (%)	10
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	5 to 6	Initial Dry Density (pcf)	115.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	124.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.65

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown to Red Brown Clayey fine to medium Sand

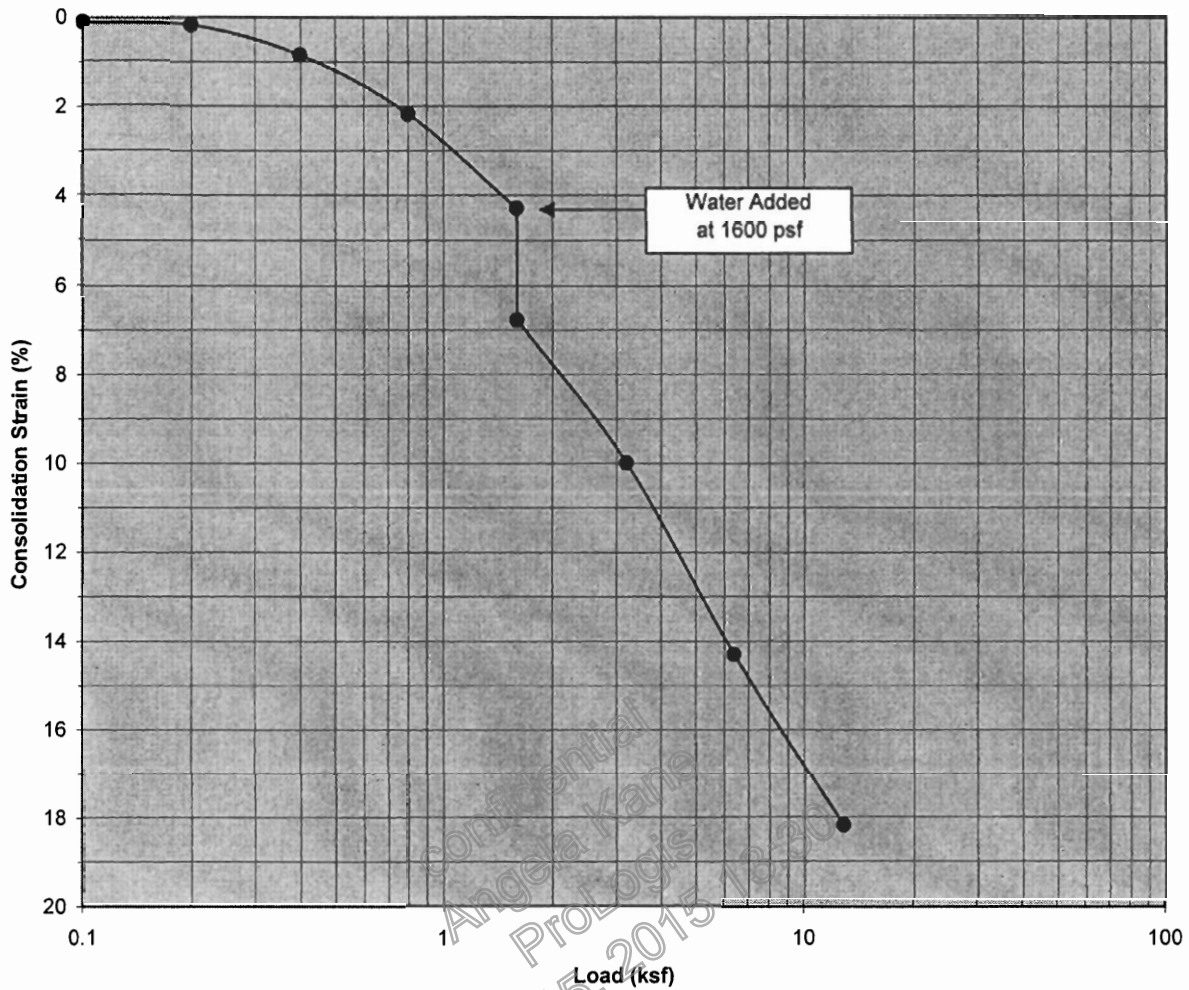
Boring Number:	B-15	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	7 to 8	Initial Dry Density (pcf)	114.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	124.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.63

Centerpointe Business Park
 Moreno Valley, California
 Project No. 05G212
PLATE C- 8

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown fine Sandy Clay

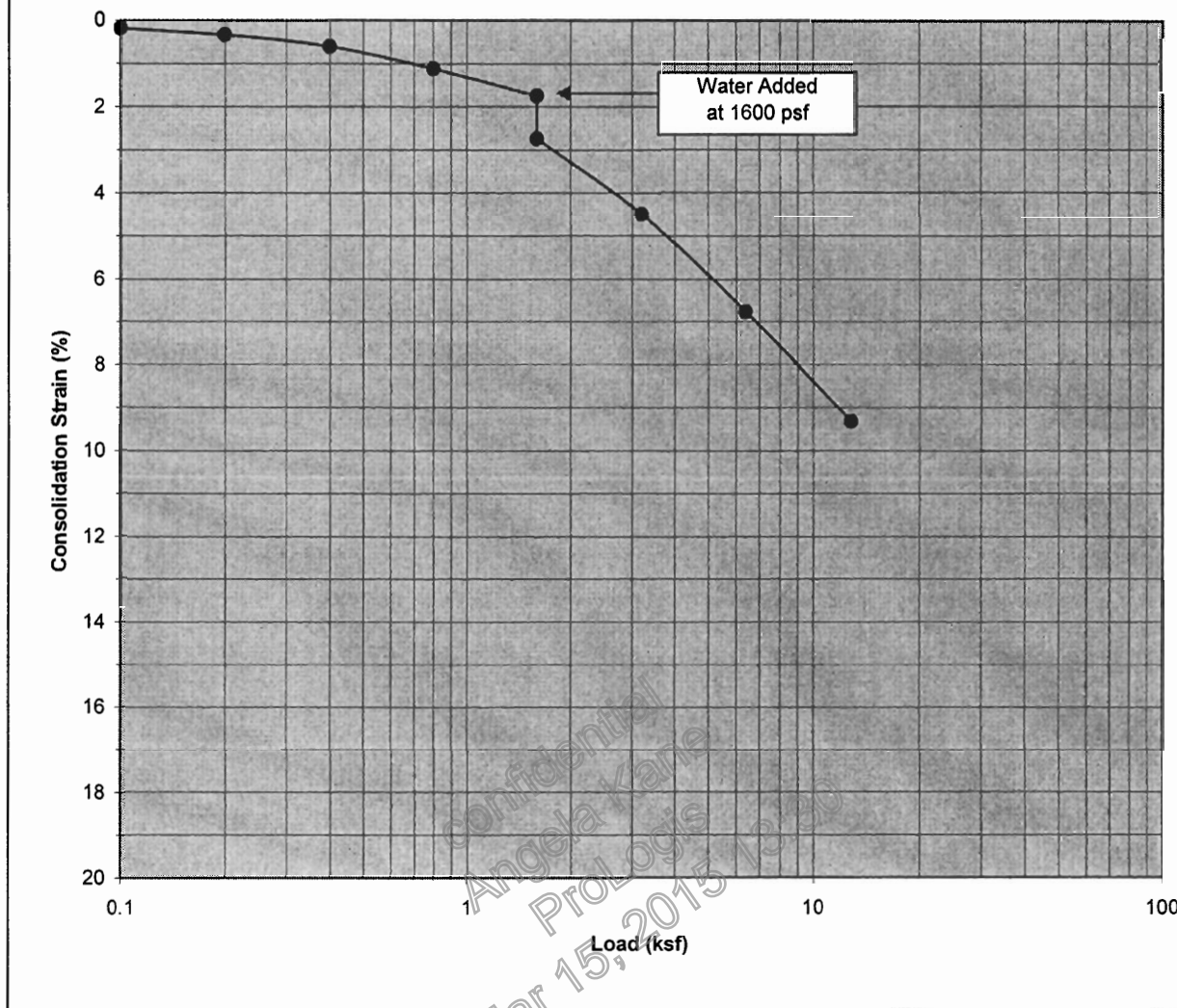
Boring Number:	B-18	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	1 to 2	Initial Dry Density (pcf)	106.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	129.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.49

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown fine Sandy Clay, some Silt

Boring Number:	B-18	Initial Moisture Content (%)	15
Sample Number:	---	Final Moisture Content (%)	19
Depth (ft)	3 to 4	Initial Dry Density (pcf)	106.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	116.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.99

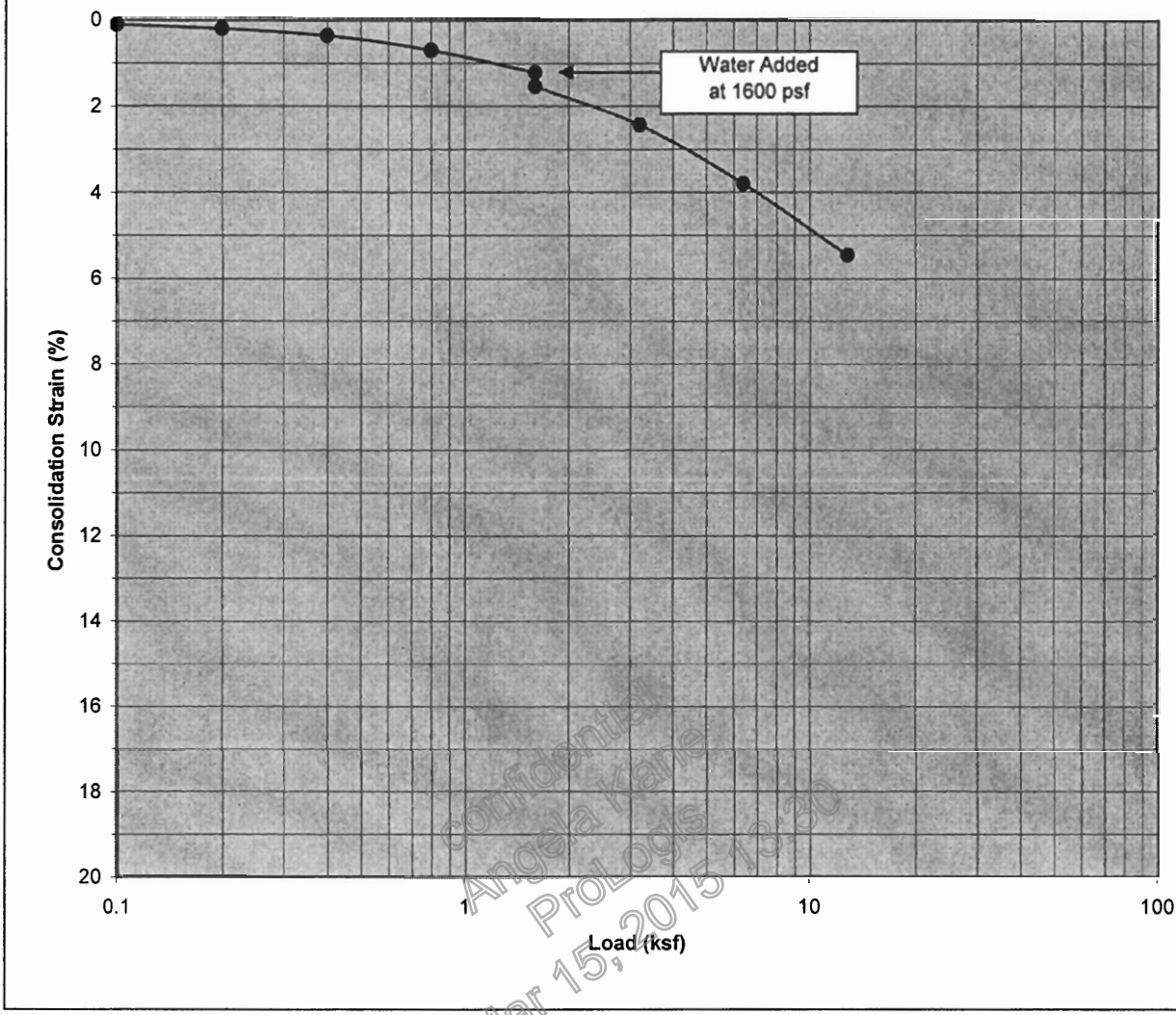
Centerpointe Business Park
 Moreno Valley, California
 Project No. 05G212
PLATE C- 10

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Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Consolidation/Collapse Test Results



Classification: ALLUVIUM: Brown fine Sandy Clay, some Silt

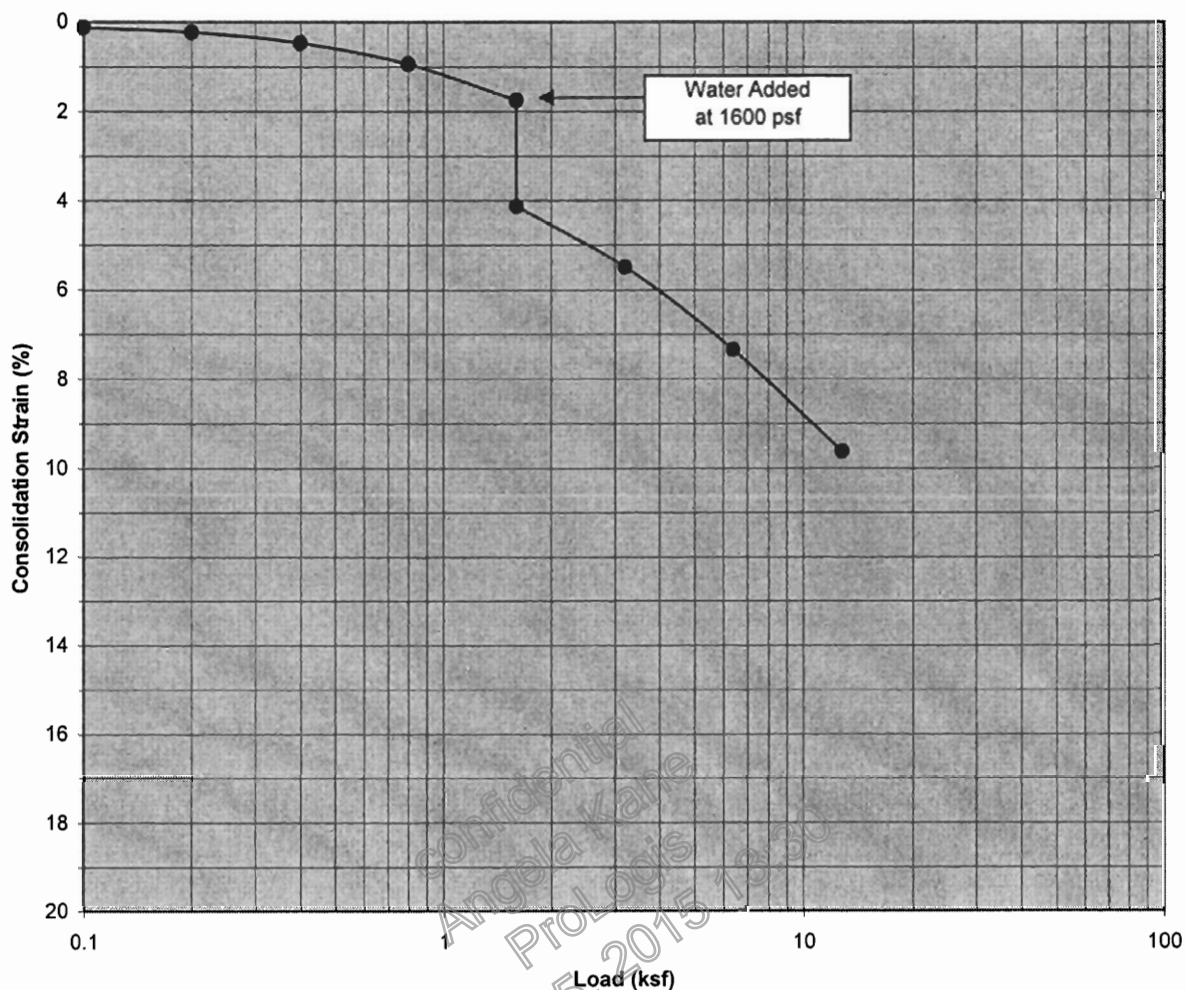
Boring Number:	B-18	Initial Moisture Content (%)	13
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	5 to 6	Initial Dry Density (pcf)	115.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.32

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PLATE C- 11

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Consolidation/Collapse Test Results



Classification: ALLUVIUM: Red Brown Clayey fine to coarse Sand

Boring Number:	B-18	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	7 to 8	Initial Dry Density (pcf)	116.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	126.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.38

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PLATE C- 12

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APPENDIX D
GRADING GUIDE SPECIFICATIONS

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GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and Uniform Building Codes.
- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.
- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.
- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the specified compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.
- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.
- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.
- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.
- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.
- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.
- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.
- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted
- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated," and shall be low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.
- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.
- Rock fragments or rocks greater than 6 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. Acceptable methods typically include windrows. Oversize materials should not be placed within the range of excavation for foundations, utilities, or pools to facilitate excavations. Rock placement should be kept away from slopes (minimum distance: 15 feet) to facilitate compaction near the slope.
- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer.
- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557 unless otherwise indicated.
- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship,

equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- After compacted fills have been tested and approved by the geotechnical engineer, the contractor should moisture condition the soils as necessary to maintain the compacted moisture content. Compacted fill soils that are allowed to become overly dry or desiccated may require removal and/or scarification, moisture conditioning and replacement. Soils with medium to high expansion indices are especially susceptible to desiccation. Sandy soils that are allowed to dry can also lose density.
- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.
- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates G-2, G-4, and G-5.
- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate G-1), as determined by the Geotechnical Engineer.
- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.
- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.
- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and then proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.
- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.
- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core.
- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the

slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

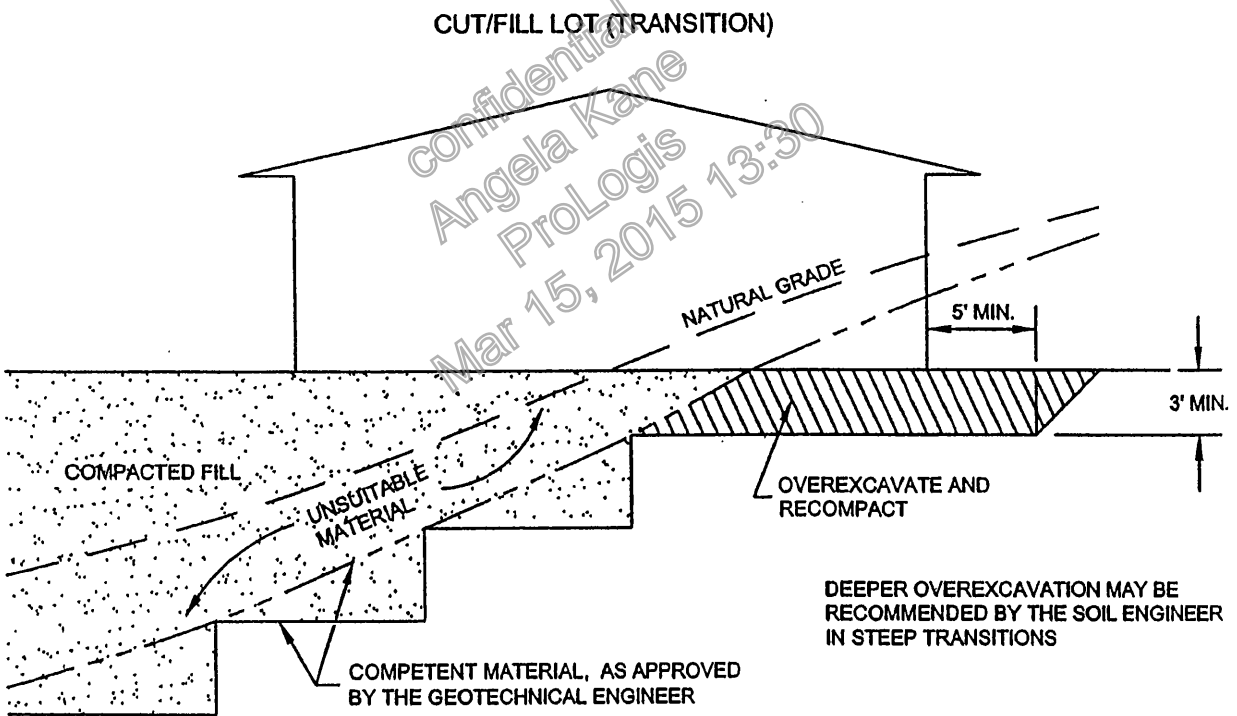
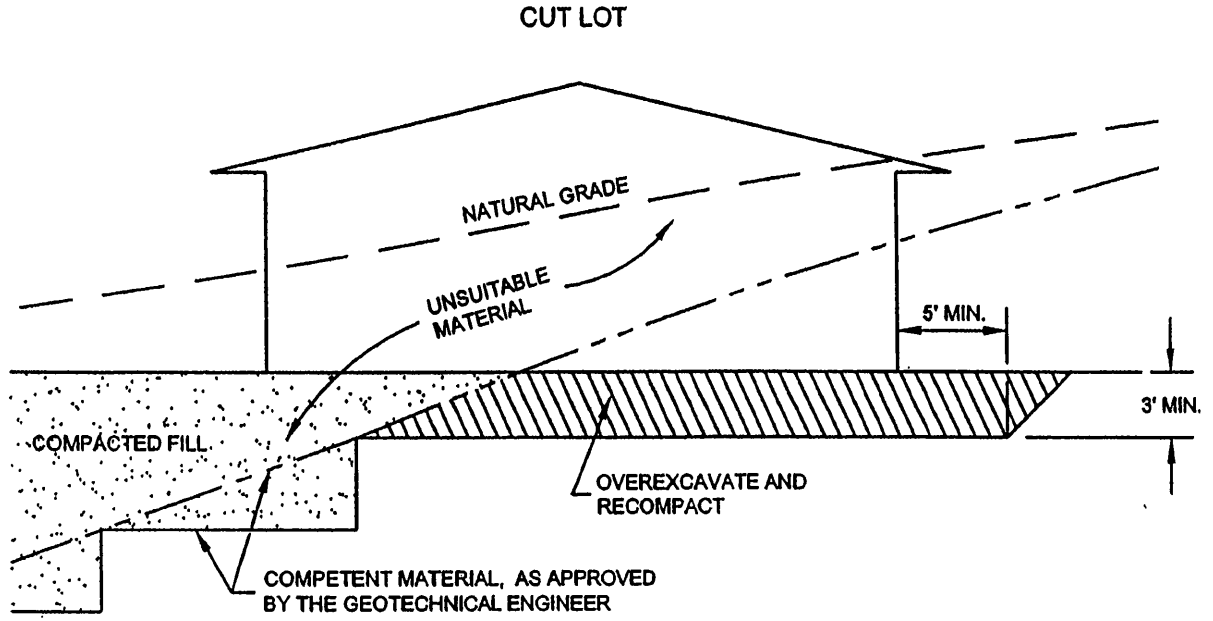
- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.
- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate G-5).
- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.
- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate G-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.
- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.
- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate G-5.
- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates G-6.

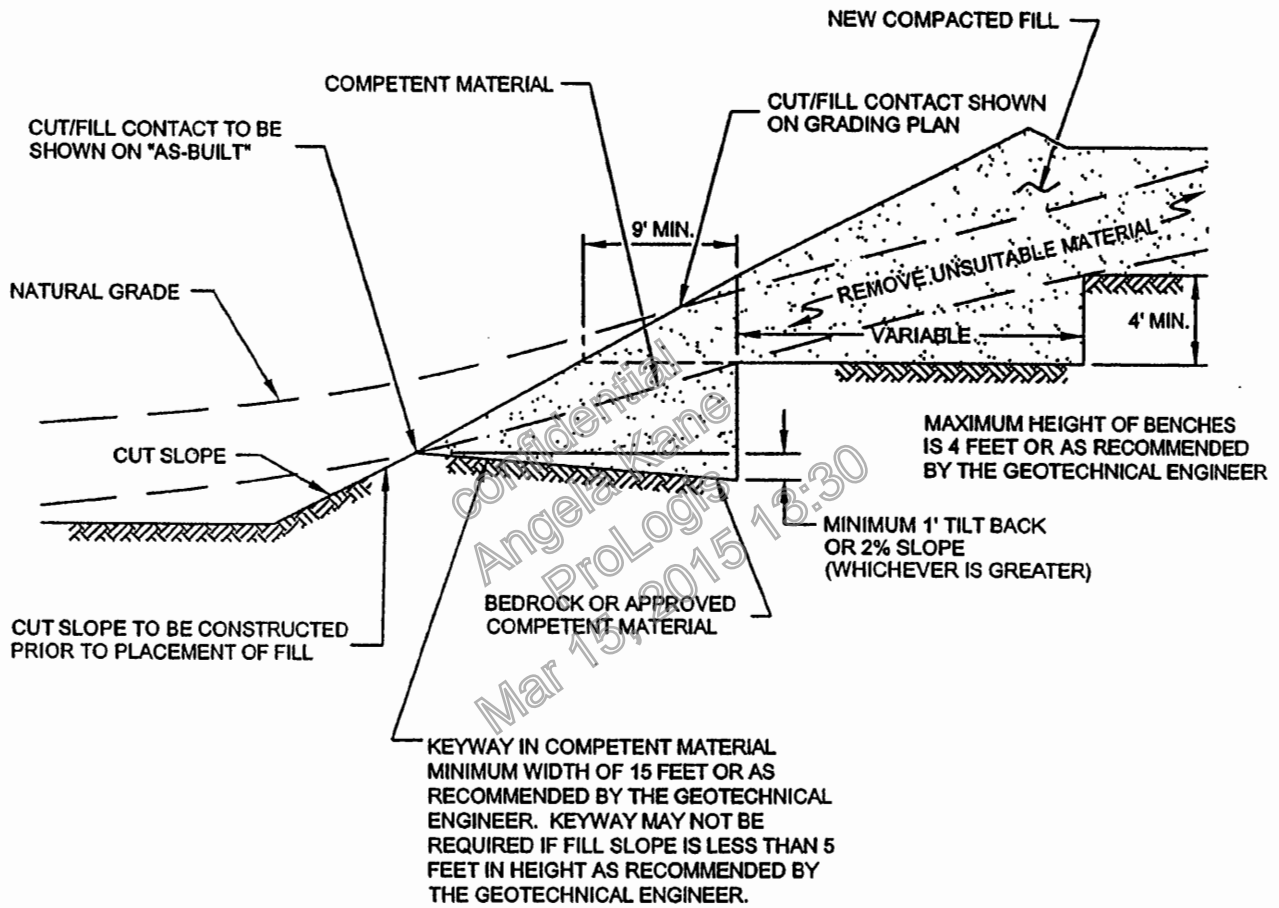
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate G-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.
- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¼-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

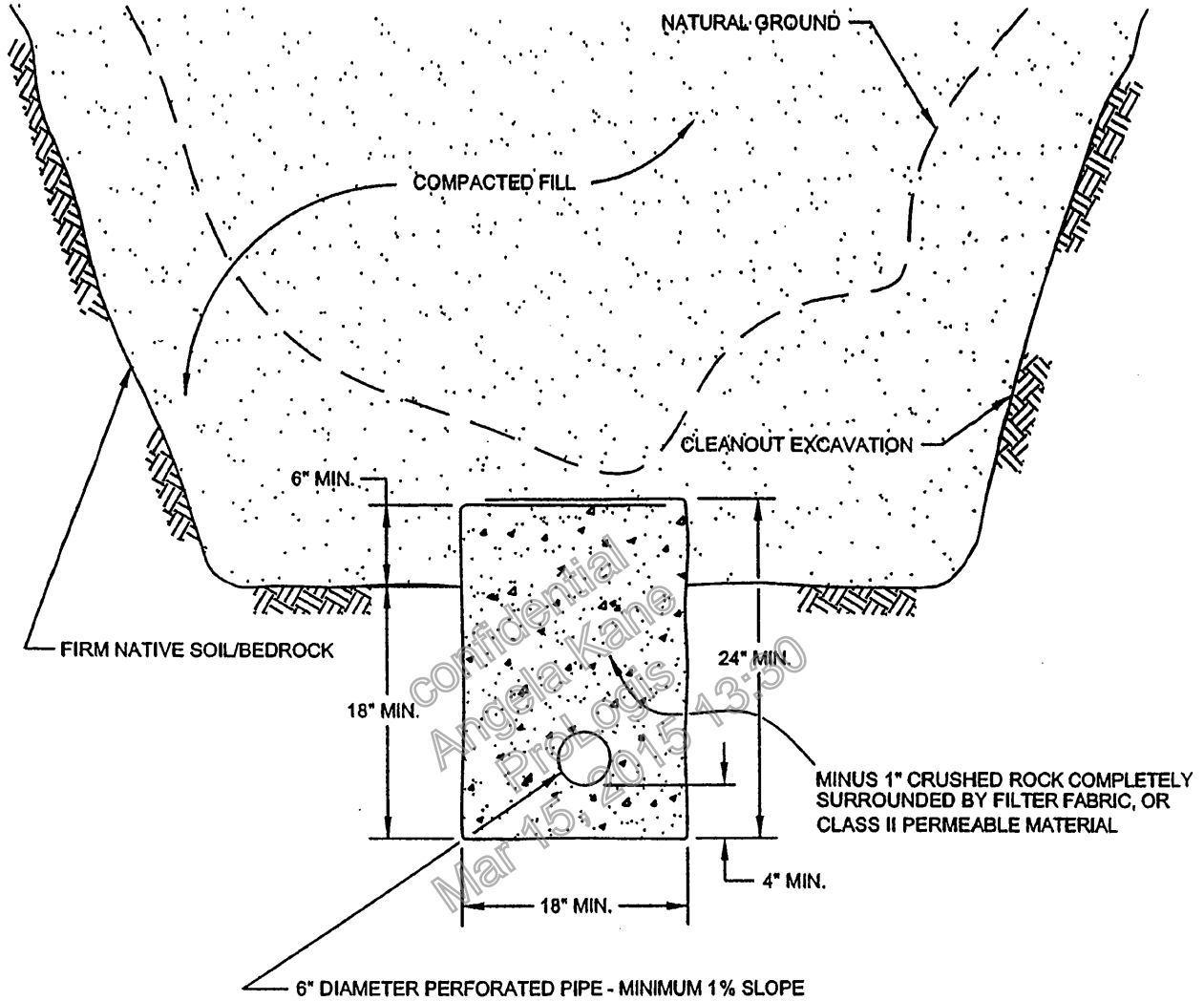


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TRANSITION LOT DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	
DRAWN: JAS CHKD: GKM	
PLATE G-1	
1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398	



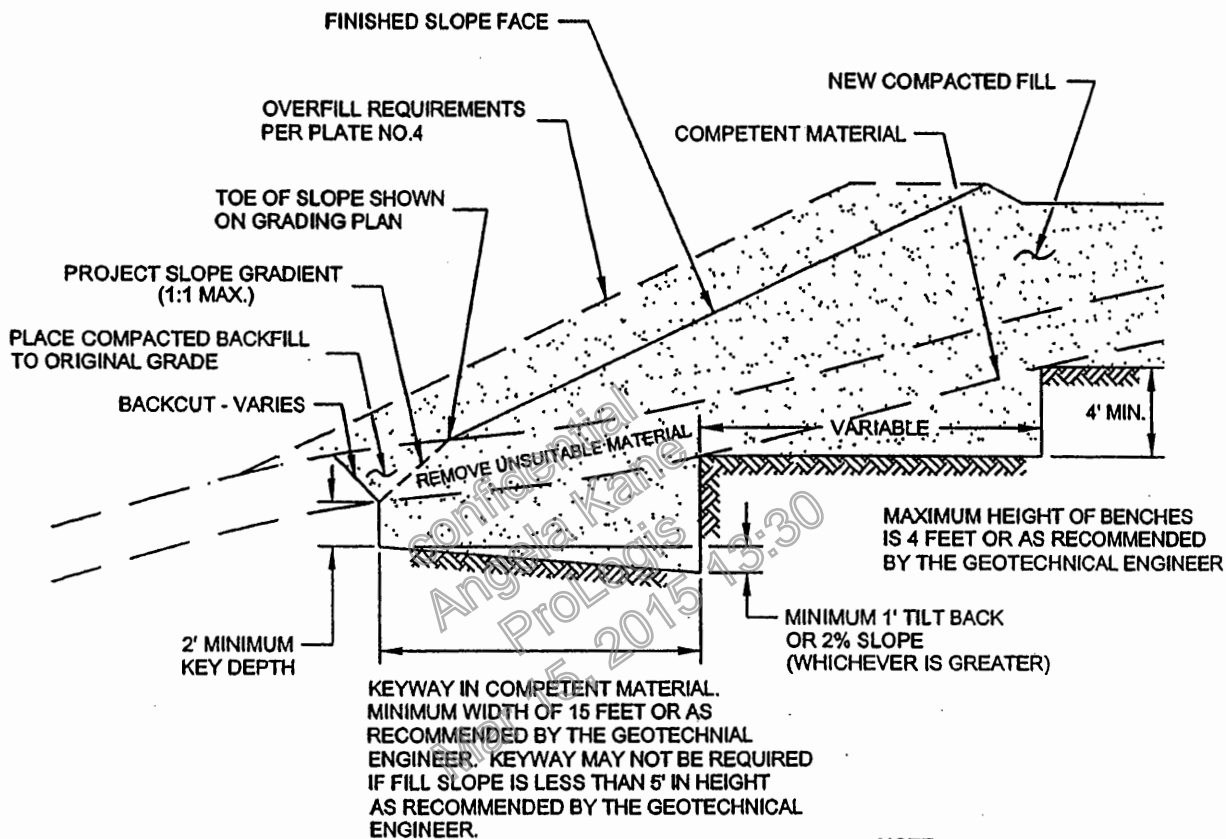
FILL ABOVE CUT SLOPE DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical 1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398
DRAWN: JAS CHKD: GKM	
PLATE G-2	



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

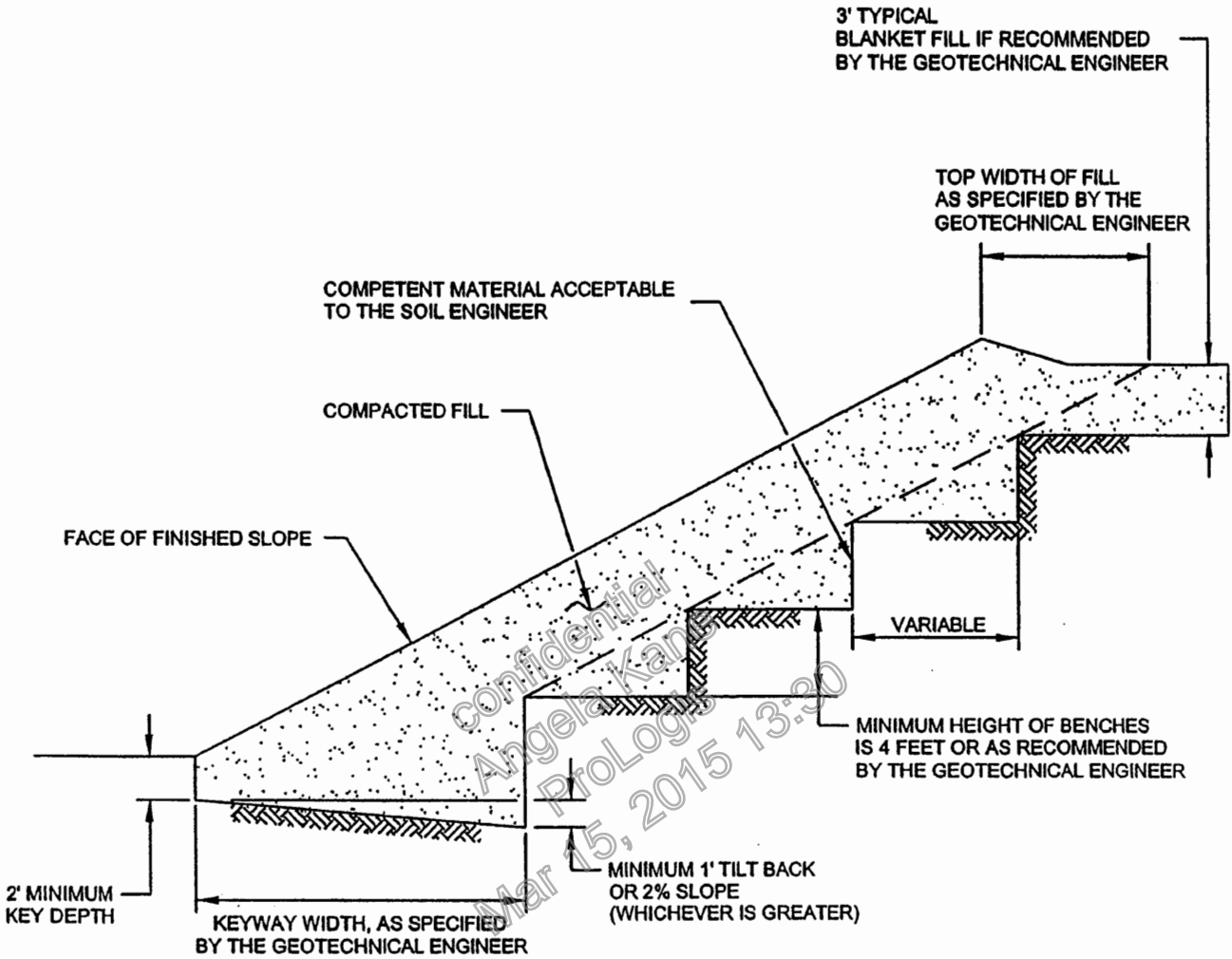
SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical <small>INC.</small> 1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398
DRAWN: JAS CHKD: GKM	
PLATE G-3	



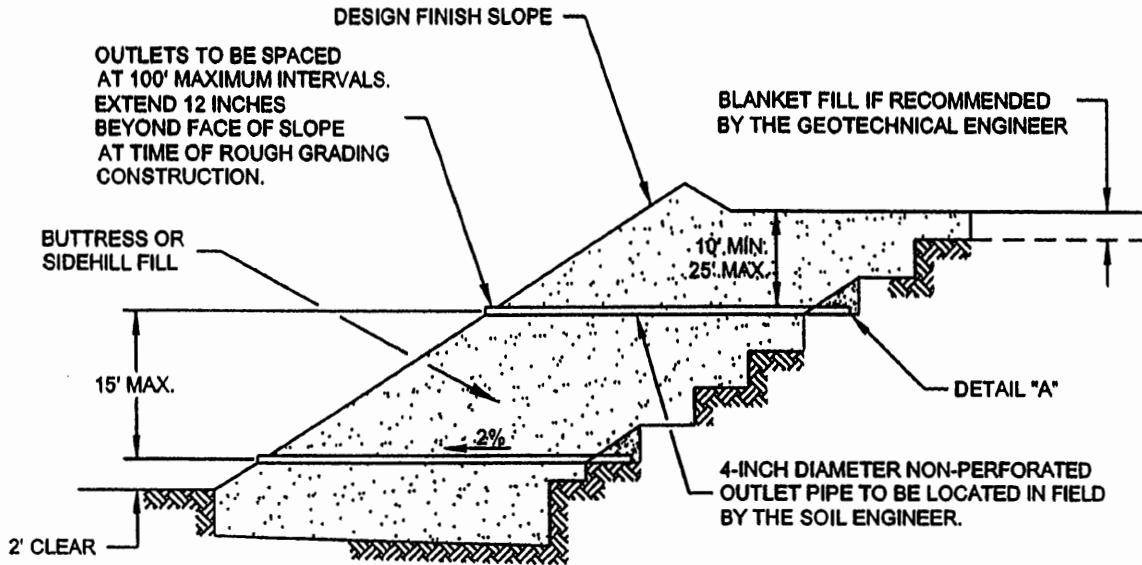
NOTE:
 BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical INC.
DRAWN: JAS CHKD: GKM	
PLATE G-4	
1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398	



STABILIZATION FILL DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical INC.
DRAWN: JAS CHKD: GKM	
PLATE G-5	
1260 North Hancock Street, Suite 101 Anahelm, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398	

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))



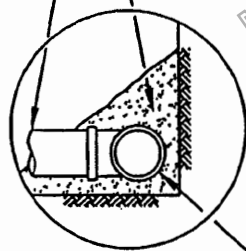
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8
SAND EQUIVALENT = MINIMUM OF 50	

OUTLET PIPE TO BE CONNECTED TO SUBDRAIN PIPE WITH TEE OR ELBOW



DETAIL "A"

FILTER MATERIAL - MINIMUM OF FIVE CUBIC FEET PER FOOT OF PIPE. SEE ABOVE FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL FIVE CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE ABOVE FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 12 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

NOTES:

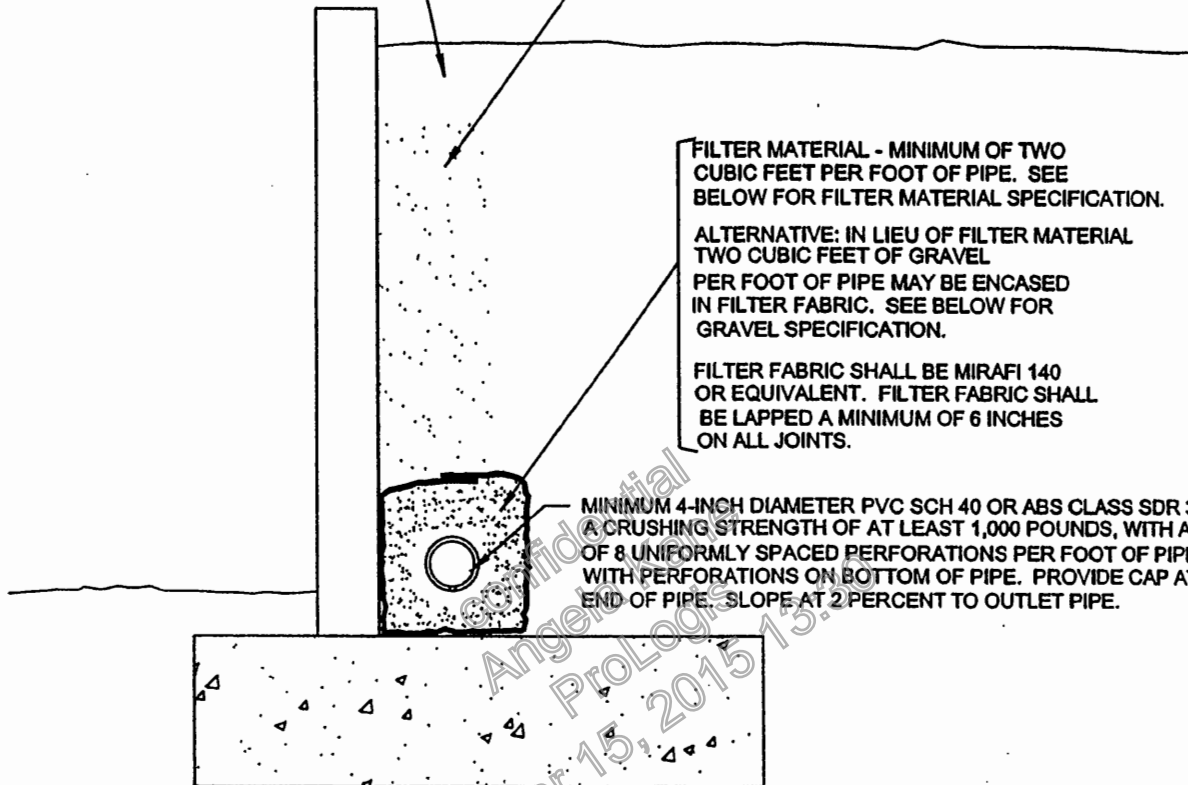
- TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical INC. 1280 North Hancock Street, Suite 101 Anahelm, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398
DRAWN: JAS CHKD: GKM	
PLATE G-6	

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

MINIMUM ONE FOOT THICK LAYER OF LOW PERMEABILITY SOIL IF NOT COVERED WITH AN IMPERMEABLE SURFACE

MINIMUM ONE FOOT WIDE LAYER OF FREE DRAINING MATERIAL (LESS THAN 5% PASSING THE #200 SIEVE)



FILTER MATERIAL - MINIMUM OF TWO CUBIC FEET PER FOOT OF PIPE. SEE BELOW FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL TWO CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE BELOW FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFL 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 6 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8
SAND EQUIVALENT = MINIMUM OF 50	

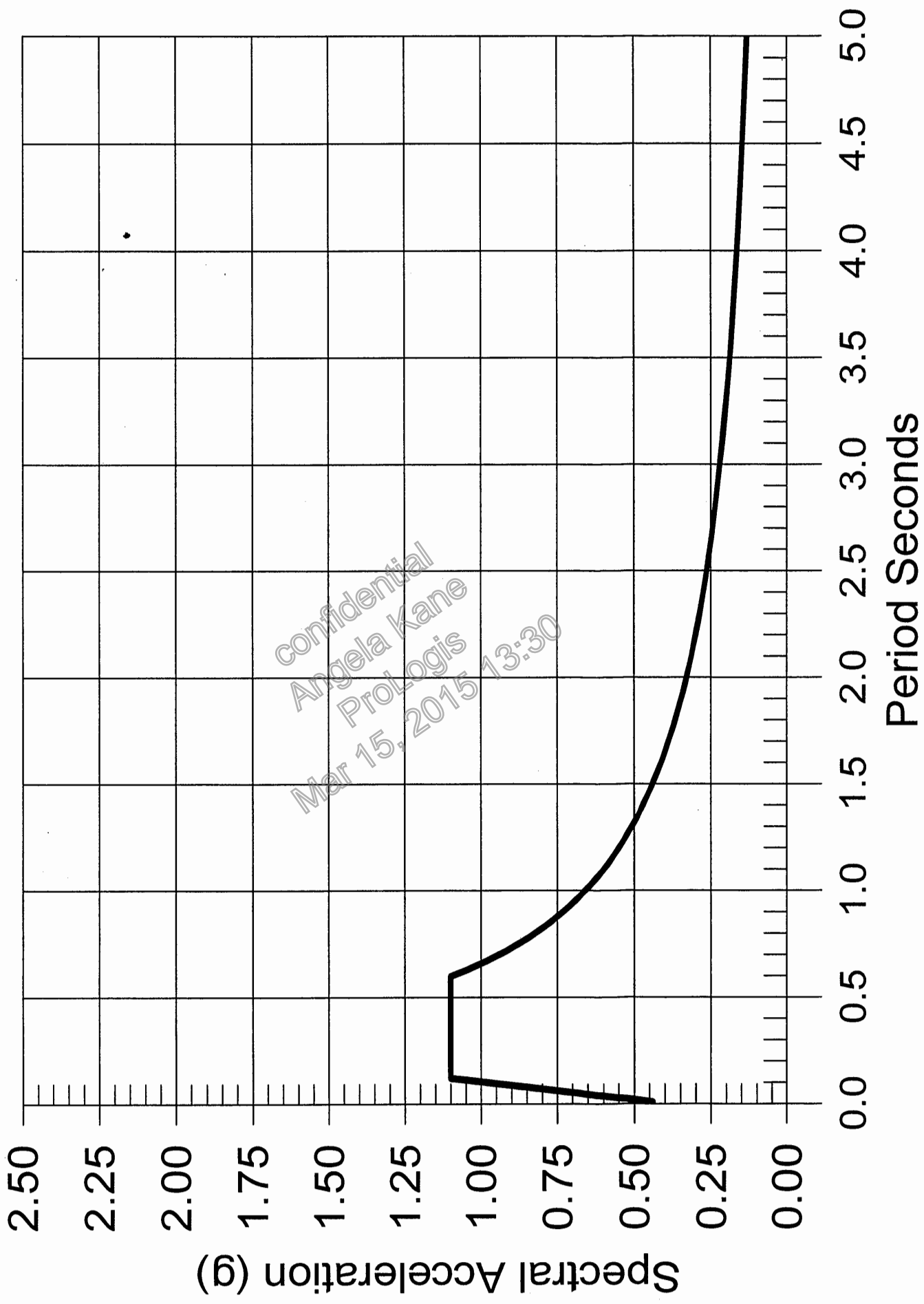
RETAINING WALL BACKDRAINS	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	Southern California Geotechnical <small>INC.</small> 1260 North Hancock Street, Suite 101 Anaheim, California 92807 Phone: (714) 777-0333 Fax: (714) 777-0398
DRAWN: JAS CHKD: GKM	
PLATE G-7	

APPENDIX E
***UBCSEIS* COMPUTER PROGRAM OUTPUT**

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Mar 15, 2015 13:30

DESIGN RESPONSE SPECTRUM

Seismic Zone: 0.4 Soil Profile: SD



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Mar 15, 2015 13:30

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*                               *
*   U B C S E I S             *
*                               *
*   Version 1.03              *
*                               *
*****

```

COMPUTATION OF 1997
UNIFORM BUILDING CODE
SEISMIC DESIGN PARAMETERS

JOB NUMBER: 05P000

DATE: 06-21-2005

JOB NAME: Proposed Building

FAULT-DATA-FILE NAME: CDMGUBCR.DAT

SITE COORDINATES:

SITE LATITUDE: 33.9111
SITE LONGITUDE: 117.2521

UBC SEISMIC ZONE: 0.4

UBC SOIL PROFILE TYPE: SD

NEAREST TYPE A FAULT:

NAME: SAN ANDREAS - Southern
DISTANCE: 26.5 km

NEAREST TYPE B FAULT:

NAME: SAN JACINTO-SAN JACINTO VALLEY
DISTANCE: 9.3 km

NEAREST TYPE C FAULT:

NAME:
DISTANCE: 99999.0 km

SELECTED UBC SEISMIC COEFFICIENTS:

Na: 1.0
Nv: 1.0
Ca: 0.44
Cv: 0.66
Ts: 0.598
To: 0.120

```

*****
* CAUTION: The digitized data points used to model faults are *
* limited in number and have been digitized from small- *
* scale maps (e.g., 1:750,000 scale). Consequently, *
* the estimated fault-site-distances may be in error by *
* several kilometers. Therefore, it is important that *
* the distances be carefully checked for accuracy and *
* adjusted as needed, before they are used in design. *
*****

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SUMMARY OF FAULT PARAMETERS

Page 1

ABBREVIATED FAULT NAME	APPROX. DISTANCE (km)	SOURCE TYPE (A, B, C)	MAX. MAG. (Mw)	SLIP RATE (mm/yr)	FAULT TYPE (SS, DS, BT)
SAN JACINTO-SAN JACINTO VALLEY	9.3	B	6.9	12.00	SS
SAN JACINTO-SAN BERNARDINO	11.7	B	6.7	12.00	SS
SAN ANDREAS - Southern	26.5	A	7.4	24.00	SS
EL SINORE-GLEN IVY	28.2	B	6.8	5.00	SS
CHINO-CENTRAL AVE. (Elsinore)	30.6	B	6.7	1.00	DS
EL SINORE-TEMECULA	31.1	B	6.8	5.00	SS
CUCAMONGA	34.7	A	7.0	5.00	DS
EL SINORE-WHITTIER	36.1	B	6.8	2.50	SS
SAN JACINTO-ANZA	36.3	A	7.2	12.00	SS
NORTH FRONTAL FAULT ZONE (West)	38.3	B	7.0	1.00	DS
CLEGHORN	40.4	B	6.5	3.00	SS
SAN JOSE	46.3	B	6.5	0.50	DS
SIERRA MADRE (Central)	50.8	B	7.0	3.00	DS
SAN ANDREAS - 1857 Rupture	51.3	A	7.8	34.00	SS
PINTO MOUNTAIN	51.5	B	7.0	2.50	SS
NORTH FRONTAL FAULT ZONE (East)	55.5	B	6.7	0.50	DS
HELENDALE - S. LOCKHARDT	62.1	B	7.1	0.60	SS
EL SINORE-JULIAN	63.4	A	7.1	5.00	SS
CLAMSHELL-SAWPIT	65.9	B	6.5	0.50	DS
NEWPORT-INGLEWOOD (Offshore)	67.5	B	6.9	1.50	SS
NEWPORT-INGLEWOOD (L.A.Basin)	70.6	B	6.9	1.00	SS
RAYMOND	75.1	B	6.5	0.50	DS
LENWOOD-LOCKHART-OLD WOMAN SPRGS	75.3	B	7.3	0.60	SS
BURNT MTN.	80.2	B	6.5	0.60	SS
LANDERS	82.0	B	7.3	0.60	SS
EUREKA PEAK	82.7	B	6.5	0.60	SS
VERDUGO	84.3	B	6.7	0.50	DS
JOHNSON VALLEY (Northern)	84.9	B	6.7	0.60	SS
SAN JACINTO-COYOTE CREEK	85.2	B	6.8	4.00	SS
ROSE CANYON	88.3	B	6.9	1.50	SS
PALOS VERDES	89.7	B	7.1	3.00	SS
HOLLYWOOD	93.2	B	6.5	1.00	DS
CORONADO BANK	94.8	B	7.4	3.00	SS
EMERSON So. - COPPER MTN.	95.4	B	6.9	0.60	SS
EARTHQUAKE VALLEY	102.0	B	6.5	2.00	SS
CALICO - HIDALGO	103.7	B	7.1	0.60	SS
SIERRA MADRE (San Fernando)	104.5	B	6.7	2.00	DS
SAN GABRIEL	105.1	B	7.0	1.00	SS
SANTA MONICA	108.4	B	6.6	1.00	DS
GRAVEL HILLS - HARPER LAKE	111.2	B	6.9	0.60	SS
PISGAH-BULLION MTN.-MESQUITE LK	111.3	B	7.1	0.60	SS
MALIBU COAST	118.9	B	6.7	0.30	DS
SANTA SUSANA	123.6	B	6.6	5.00	DS
SAN JACINTO - BORREGO	125.6	B	6.6	4.00	SS
BLACKWATER	125.7	B	6.9	0.60	SS
HOLSER	132.0	B	6.5	0.40	DS

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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SUMMARY OF FAULT PARAMETERS

Page 2

ABBREVIATED FAULT NAME	APPROX. DISTANCE (km)	SOURCE TYPE (A, B, C)	MAX. MAG. (Mw)	SLIP RATE (mm/yr)	FAULT TYPE (SS, DS, BT)
ANACAPA-DUME	133.4	B	7.3	3.00	DS
ELSINORE-COYOTE MOUNTAIN	133.5	B	6.8	4.00	SS
OAK RIDGE (Onshore)	144.9	B	6.9	4.00	DS
SIMI-SANTA ROSA	148.8	B	6.7	1.00	DS
SAN CAYETANO	151.1	B	6.8	6.00	DS
BRAWLEY SEISMIC ZONE	155.8	B	6.5	25.00	SS
SUPERSTITION MTN. (San Jacinto)	159.6	B	6.6	5.00	SS
ELMORE RANCH	162.0	B	6.6	1.00	SS
GARLOCK (West)	163.5	A	7.1	6.00	SS
SUPERSTITION HILLS (San Jacinto)	164.3	B	6.6	4.00	SS
GARLOCK (East)	168.5	A	7.3	7.00	SS
SANTA YNEZ (East)	168.8	B	7.0	2.00	SS
VENTURA - PITAS POINT	180.9	B	6.8	1.00	DS
PLEITO THRUST	181.4	B	6.8	2.00	DS
ELSINORE-LAGUNA SALADA	182.7	B	7.0	3.50	SS
M.RIDGE-ARROYO PARIDA-SANTA ANA	187.2	B	6.7	0.40	DS
IMPERIAL	190.6	A	7.0	20.00	SS
BIG PINE	190.9	B	6.7	0.80	SS
So. SIERRA NEVADA	190.9	B	7.1	0.10	DS
WHITE WOLF	191.6	B	7.2	2.00	DS
OWL LAKE	191.7	B	6.5	2.00	SS
PANAMINT VALLEY	191.8	B	7.2	2.50	SS
TANK CANYON	192.4	B	6.5	1.00	DS
LITTLE LAKE	192.5	B	6.7	0.70	SS
RED MOUNTAIN	194.9	B	6.8	2.00	DS
DEATH VALLEY (South)	203.7	B	6.9	4.00	SS
SANTA CRUZ ISLAND	209.0	B	6.8	1.00	DS
SANTA YNEZ (West)	228.8	B	6.9	2.00	SS
DEATH VALLEY (Graben)	241.9	B	6.9	4.00	DS
SANTA ROSA ISLAND	245.3	B	6.9	1.00	DS
OWENS VALLEY	262.3	B	7.6	1.50	SS
LOS ALAMOS-W. BASELINE	271.6	B	6.8	0.70	DS
SAN JUAN	285.3	B	7.0	1.00	SS
HUNTER MTN. - SALINE VALLEY	285.8	B	7.0	2.50	SS
LIONS HEAD	288.8	B	6.6	0.02	DS
SAN LUIS RANGE (S. Margin)	293.3	B	7.0	0.20	DS
DEATH VALLEY (Northern)	295.1	A	7.2	5.00	SS
INDEPENDENCE	298.3	B	6.9	0.20	DS
CASMALIA (Orcutt Frontal Fault)	305.0	B	6.5	0.25	DS
LOS OSOS	322.7	B	6.8	0.50	DS
HOSGRI	334.7	B	7.3	2.50	SS
RINCONADA	338.3	B	7.3	1.00	SS
BIRCH CREEK	355.1	B	6.5	0.70	DS
WHITE MOUNTAINS	358.8	B	7.1	1.00	SS
DEEP SPRINGS	376.5	B	6.6	0.80	DS
DEATH VALLEY (N. of Cucamongo)	380.2	A	7.0	5.00	SS

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

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PROJECT
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SUMMARY OF FAULT PARAMETERS

Page 3

ABBREVIATED FAULT NAME	APPROX. DISTANCE (km)	SOURCE TYPE (A, B, C)	MAX. MAG. (Mw)	SLIP RATE (mm/yr)	FAULT TYPE (SS, DS, BT)
SAN ANDREAS (Creeping)	383.7	B	5.0	34.00	SS
ROUND VALLEY (E. of S.N.Mtns.)	391.3	B	6.8	1.00	DS
FISH SLOUGH	397.8	B	6.6	0.20	DS
HILTON CREEK	417.7	B	6.7	2.50	DS
HARTLEY SPRINGS	442.7	B	6.6	0.50	DS
ORTIGALITA	462.5	B	6.9	1.00	SS
CALAVERAS (So. of Calaveras Res)	471.6	B	6.2	15.00	SS
MONO LAKE	478.9	B	6.6	2.50	DS
MONTEREY BAY - TULARCITOS	479.7	B	7.1	0.50	DS
QUIEN SABE	483.7	B	6.5	1.00	SS
PALO COLORADO - SUR	484.7	B	7.0	3.00	SS
ZAYANTE-VERGELES	503.7	B	6.8	0.10	SS
SARGENT	508.2	B	6.8	3.00	SS
SAN ANDREAS (1906)	508.9	A	7.9	24.00	SS
ROBINSON CREEK	510.4	B	6.5	0.50	DS
ANTELOPE VALLEY	551.1	B	6.7	0.80	DS
GREENVILLE	553.5	B	6.9	2.00	SS
SAN GREGORIO	554.3	A	7.3	5.00	SS
HAYWARD (SE Extension)	556.5	B	6.5	3.00	SS
MONTE VISTA - SHANNON	558.2	B	6.5	0.40	DS
HAYWARD (Total Length)	575.4	A	7.1	9.00	SS
CALAVERAS (No. of Calaveras Res)	575.4	B	6.8	6.00	SS
GENOA	577.3	B	6.9	1.00	DS
CONCORD - GREEN VALLEY	620.9	B	6.9	6.00	SS
WEST NAPA	660.2	B	6.5	1.00	SS
RODGERS CREEK	660.4	A	7.0	9.00	SS
HUNTING CREEK - BERRYESSA	680.7	B	6.9	6.00	SS
POINT REYES	682.9	B	6.8	0.30	DS
MAACAMA (South)	721.9	B	6.9	9.00	SS
COLLAYOMI	737.6	B	6.5	0.60	SS
BARTLETT SPRINGS	739.4	A	7.1	6.00	SS
MAACAMA (Central)	763.4	A	7.1	9.00	SS
MAACAMA (North)	821.7	A	7.1	9.00	SS
ROUND VALLEY (N. S.F. Bay)	825.8	B	6.8	6.00	SS
BATTLE CREEK	841.3	B	6.5	0.50	DS
LAKE MOUNTAIN	884.0	B	6.7	6.00	SS
GARBERVILLE-BRICELAND	902.1	B	6.9	9.00	SS
MENDOCINO FAULT ZONE	959.6	A	7.4	35.00	DS
LITTLE SALMON (Onshore)	963.8	A	7.0	5.00	DS
MAD RIVER	965.1	B	7.1	0.70	DS
CASCADIA SUBDUCTION ZONE	974.2	A	8.3	35.00	DS
McKINLEYVILLE	975.9	B	7.0	0.60	DS
TRINIDAD	977.1	B	7.3	2.50	DS
FICKLE HILL	978.1	B	6.9	0.60	DS
TABLE BLUFF	984.6	B	7.0	0.60	DS
LITTLE SALMON (Offshore)	997.7	B	7.1	1.00	DS

Attachment: Geotechnical Investigation (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Confidential
Angela Kane
Project Logis
Mar 15, 2015 13:30

SUMMARY OF FAULT PARAMETERS

Page 4

ABBREVIATED FAULT NAME	APPROX. DISTANCE (km)	SOURCE TYPE (A, B, C)	MAX. MAG. (Mw)	SLIP RATE (mm/yr)	FAULT TYPE (SS, DS, BT)
BIG LAGOON - BALD MTN. FLT. ZONE	1013.4	B	7.3	0.50	DS

confidential
Angela Kane
ProLogis
Mar 15, 2015 13:30

AIRPORT LAND USE COMMISSION RIVERSIDE COUNTY



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Rancho Mirage

VICE CHAIRMAN
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Riverside

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STAFF

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John Guerin
Paul Rull
Barbara Santos

County Administrative Center
4080 Lemon St., 14th Floor
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

January 5, 2017

Mr. Jeff Bradshaw, Project Planner
City of Moreno Valley Community Development Department
14177 Frederick Street, P.O. Box 88005
Moreno Valley CA 92552

**RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW –
DIRECTOR’S DETERMINATION**

File No.: ZAP1232MA16
Related File No.: PEN16-0100 (Plot Plan); associated case: PEN16-0101 (Variance)
APN: 297-170-078

Dear Mr. Bradshaw:

Under the delegation of the Riverside County Airport Land Use Commission (ALUC) pursuant to Policy 1.5.2(d) of the Countywide Policies of the 2004 Riverside County Airport Land Use Compatibility Plan, staff reviewed City of Moreno Valley Case No. PEN16-0100 (Plot Plan), a proposal to construct a 99,978 square foot single-story industrial building on 6.7 acres located southerly of Brodiaea Avenue, westerly of Heacock Street, easterly of Gilbert Street, and northerly of Cactus Avenue. The associated Variance case (PEN16-0101) proposes to allow a warehousing structure larger than 50,000 square feet in the Business Park zone.

The site is located within Airport Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Influence Area (AIA). Within Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, nonresidential intensity is not restricted.

The elevation of Runway 14-32 at March Air Reserve Base/Inland Port Airport at its northerly terminus is approximately 1,535 feet above mean sea level (AMSL). At a distance of 9,654 feet from the runway to the project, Federal Aviation Administration Obstruction Evaluation Services (FAA OES) review would be required for any structures with a top of roof exceeding 1,631.5 feet AMSL. The site’s floor elevation is 1,567 feet AMSL, and has a proposed maximum building height of 41 feet, resulting in a top point elevation of 1,608 feet AMSL. Therefore, FAA OES review is not required.

As ALUC Director, I hereby find the above-referenced project **CONSISTENT** with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to the following conditions:

Attachment: ALUC Development Review Determination (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center

AIRPORT LAND USE COMMISSION

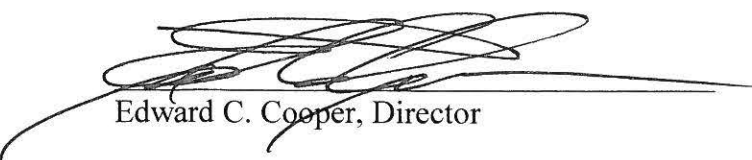
CONDITIONS:

1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
2. The following uses/activities are not included in the proposed project and shall be prohibited at this site.
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
 - (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
 - (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
3. The landowner shall provide the attached disclosure notice to all potential purchasers of the property and tenants of the building.
4. Any new detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping.

If you have any questions, please contact Paul Rull, ALUC Urban Regional Planner IV, at (951) 955-6893 or John Guerin, ALUC Principal Planner, at (951) 955-0982.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION



Edward C. Cooper, Director

AIRPORT LAND USE COMMISSION

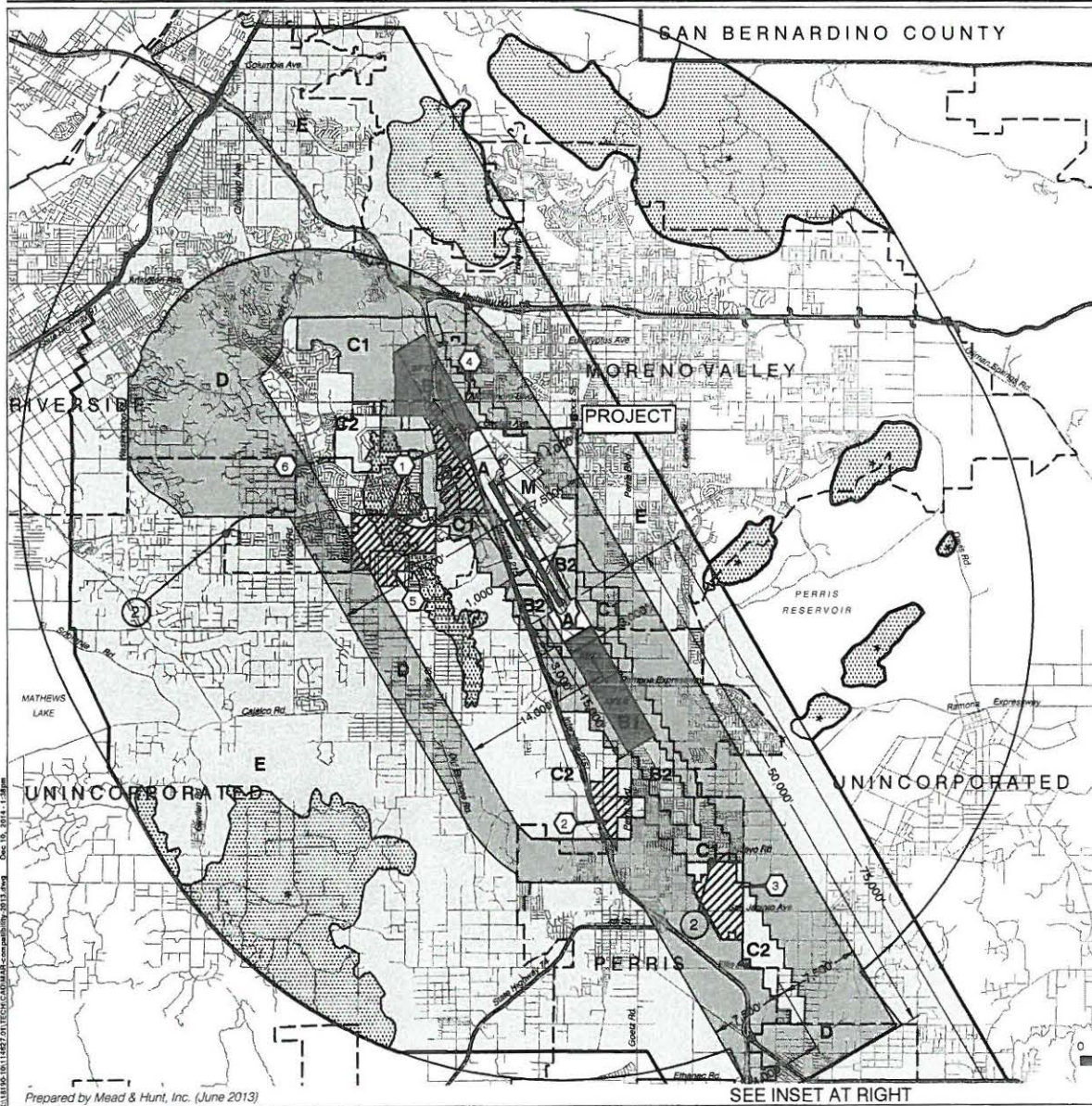
Attachments: Notice of Airport in Vicinity

cc: Prologis Development Services (applicant)
Prologis – Boston address (landowner)
EPD Solutions, Inc. (representative)
Core 5 Industrial Partners LLC
Core 5 – Atlanta address (payee)
Gary Gosliga, Airport Manager, March Inland Port Airport Authority
Denise Hauser, March Air Reserve Base
ALUC Case File

Y:\AIRPORT CASE FILES\March\ZAP1232MA16\ZAP1232MA16.LTR.doc

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b) (13)(A)



LEGEND

Compatibility Zones

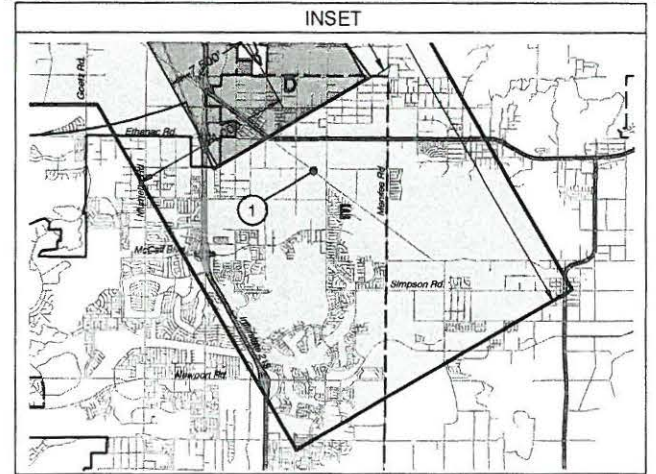
- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M
- High Terrain Zone
- FAR Part 77 Military Outer Horizontal Surface Limits
- FAR Part 77 Notification Area

Boundary Lines

- March Air Reserve Base / Air Force Property
- March Joint Powers Authority Property Line
- County Boundary
- City Limits
- ▨ Site-Specific Exceptions (existing local agency commitments to development projects)

- ① Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.
- ② Point at which departing aircraft typically reach 3,000 feet above runway end.

- ① March JPA: March Business Center/Meridian
- ② Perris: Harvest Landing
- ③ Perris: Park West
- ④ Moreno Valley: Affordable Housing
- ⑤ March JPA: Ben Clark Training Center
- ⑥ Riverside: Ridge Crest Subdivision



**Riverside County
Airport Land Use Commission
March Air Reserve Base / Inland Port Airport
Land Use Compatibility Plan
(Adopted November 13, 2014)**

Map MA-1

Compatibility Map
March Air Reserve Base / Inland Port Airport

Note:
All dimensions are measured from
runway ends and centerlines.

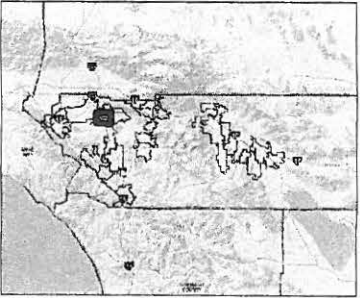
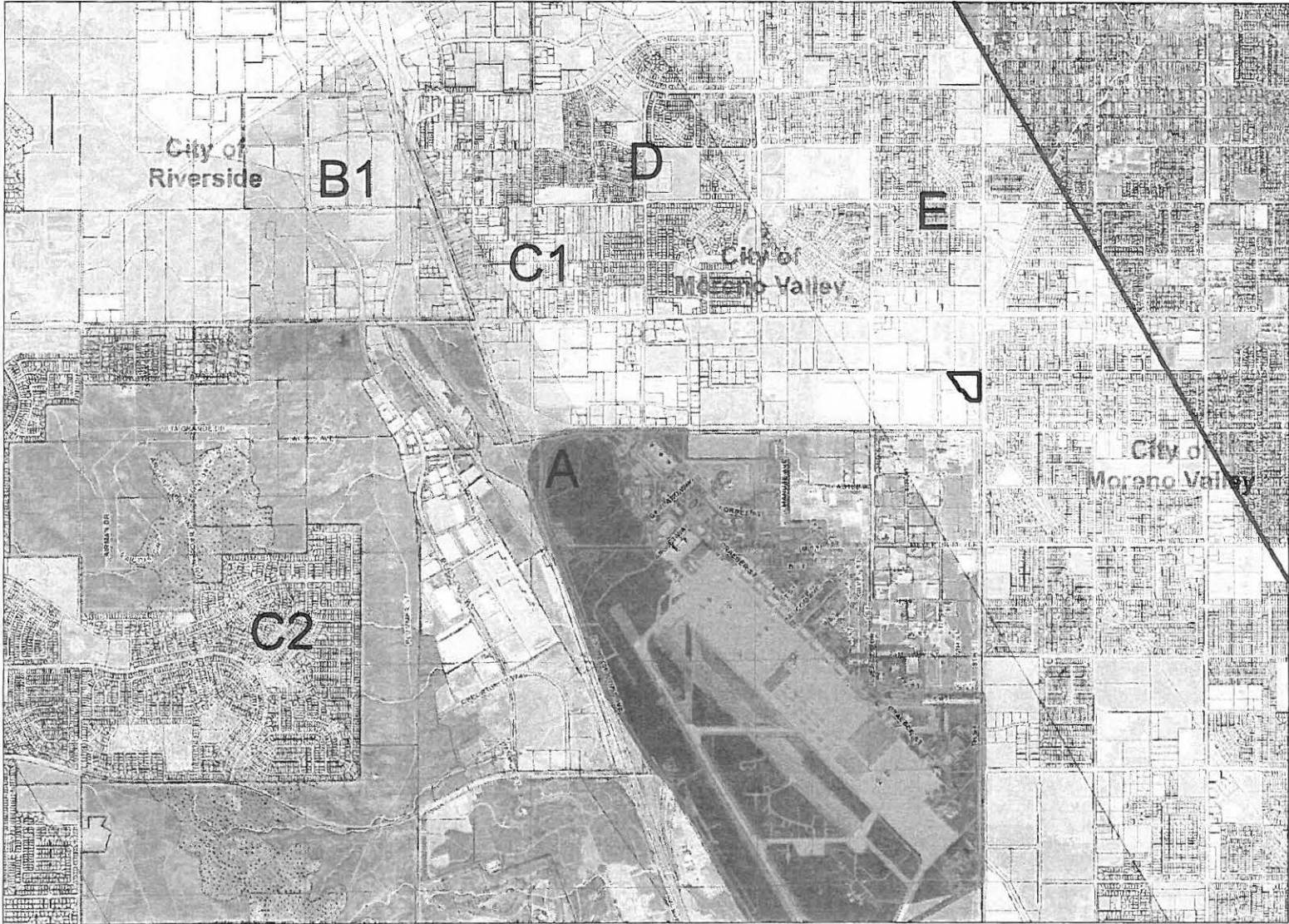


Base map source: County of Riverside 2013

SEE INSET AT RIGHT

Prepared by Mead & Hunt, Inc. (June 2013)

My Map



Legend

- Airports
- AIA
- Airport Compatibility**
- OTHER ZONE
- A
- A-EXC1
- B1
- B1-APZ I
- B1-APZ I-EXC1
- B1-APZ II
- B1-APZ II-EXC1
- B1-EXC1
- B2
- B2-EXC1
- C
- C1
- C1-EXC1
- C1-EXC3
- C1-EXC4
- C1-HIGHT
- C2
- C2-EXC1
- C2-EXC2
- C2-EXC3
- C2-EXC5
- C2-EXC6
- C2-HIGHT



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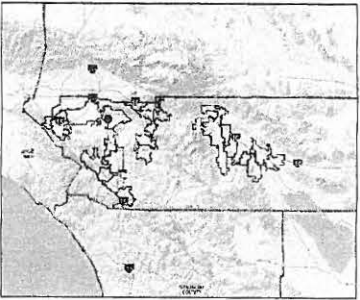
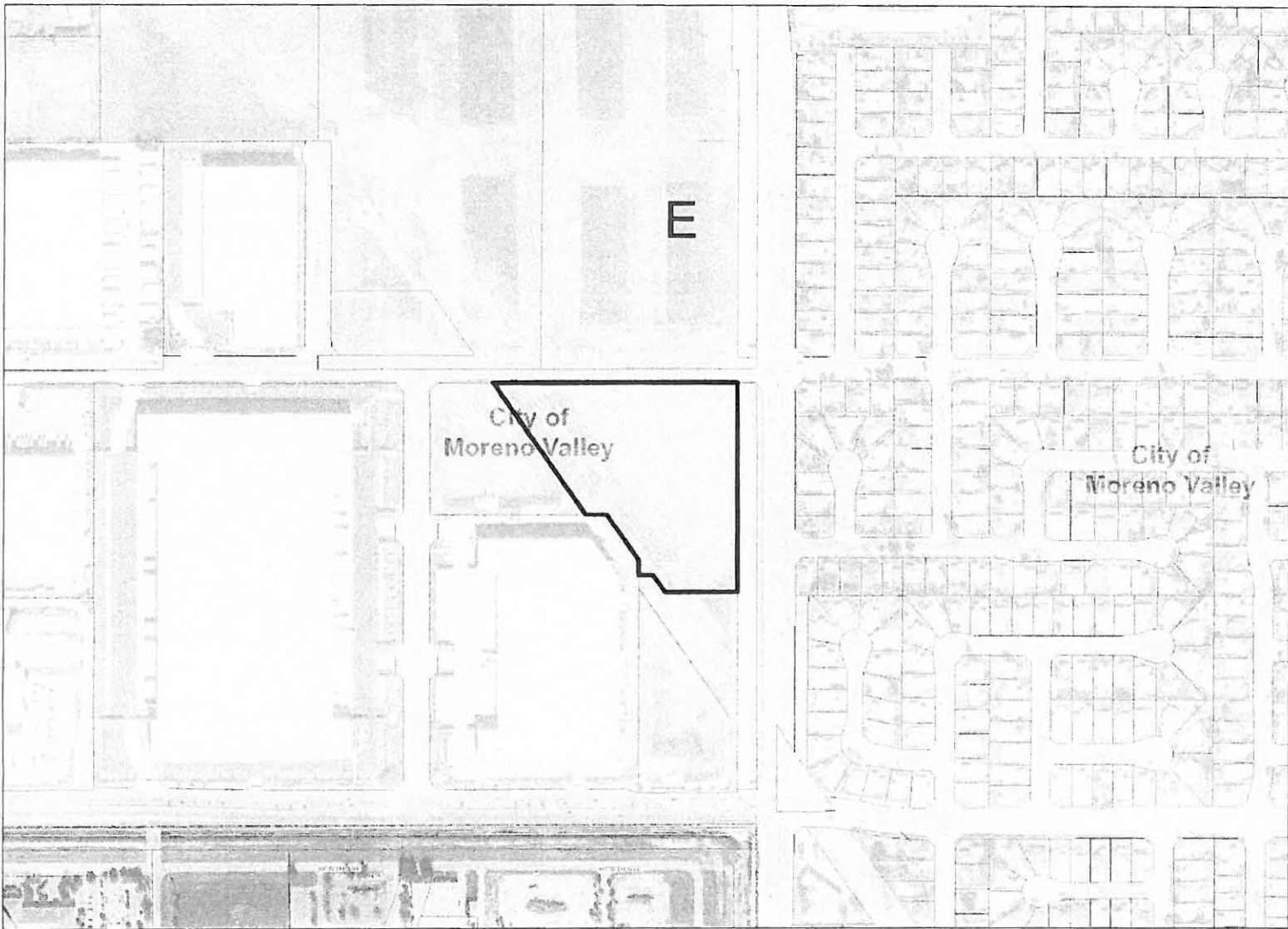
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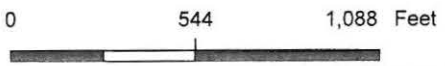
Notes

My Map



Legend

- Display Parcels
- Airports
- AIA
- Airport Compatibility
- OTHER ZONE
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- A-EXC1
- B1
- B1-APZ I
- B1-APZ I-EXC1
- B1-APZ II
- B1-APZ II-EXC1
- B1-EXC1
- B2
- B2-EXC1
- C
- C1
- C1-EXC1
- C1-EXC3
- C1-EXC4
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- C2-EXC2
- C2-EXC3
- C2-EXC5
- C2-EXC6



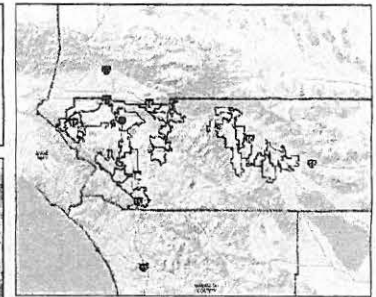
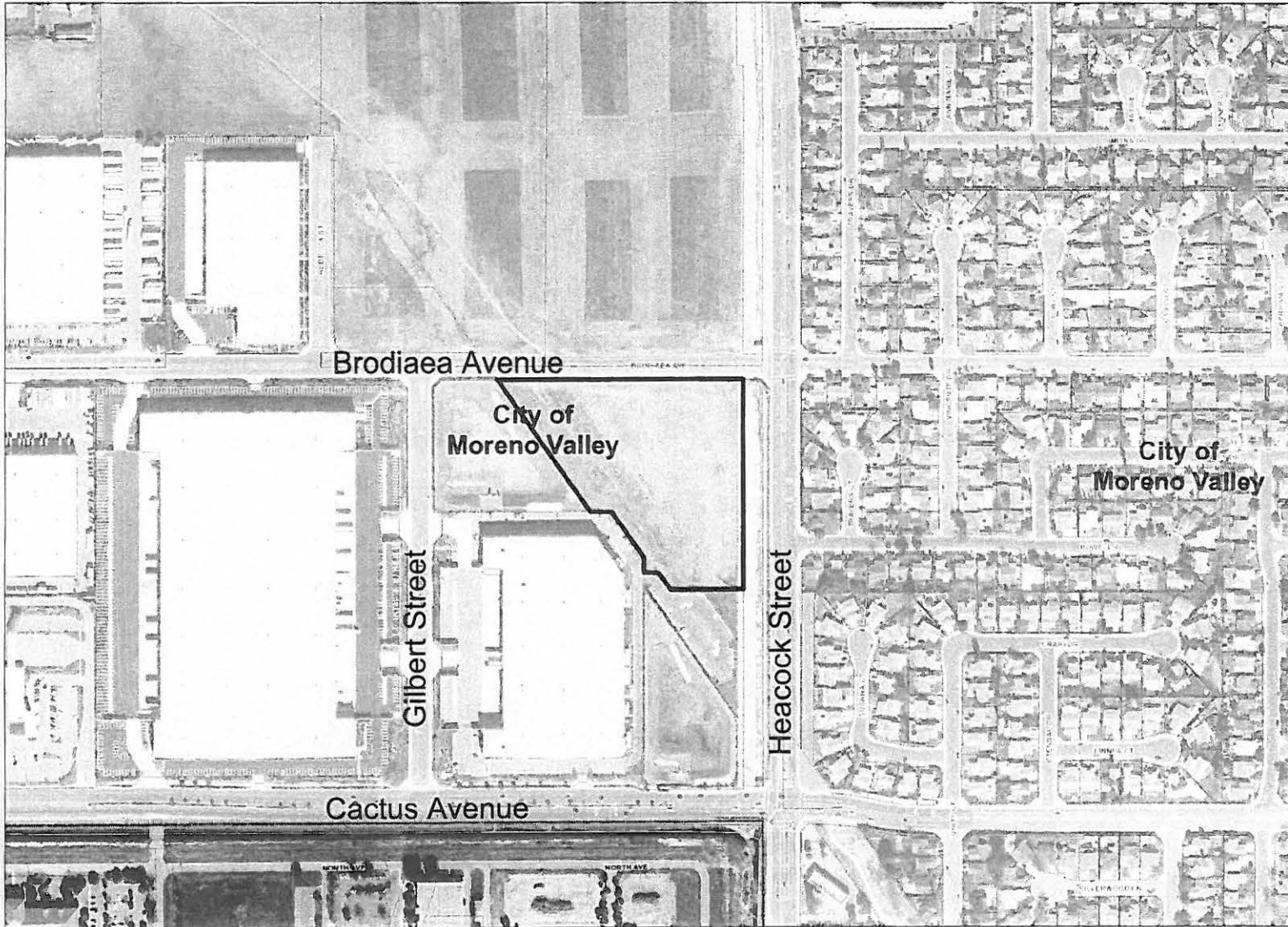
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Notes

My Map



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- Display Parcels
- City Boundaries
- Cities
- roadsanno
- highways
- HWY
- INTERCHANGE
- INTERSTATE
- OFFRAMP
- ONRAMP
- USHWY
- counties
- cities
- hydrographylines
- waterbodies
- Lakes
- Rivers

Notes



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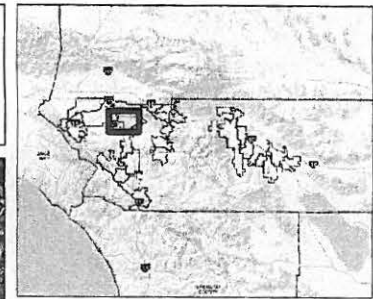
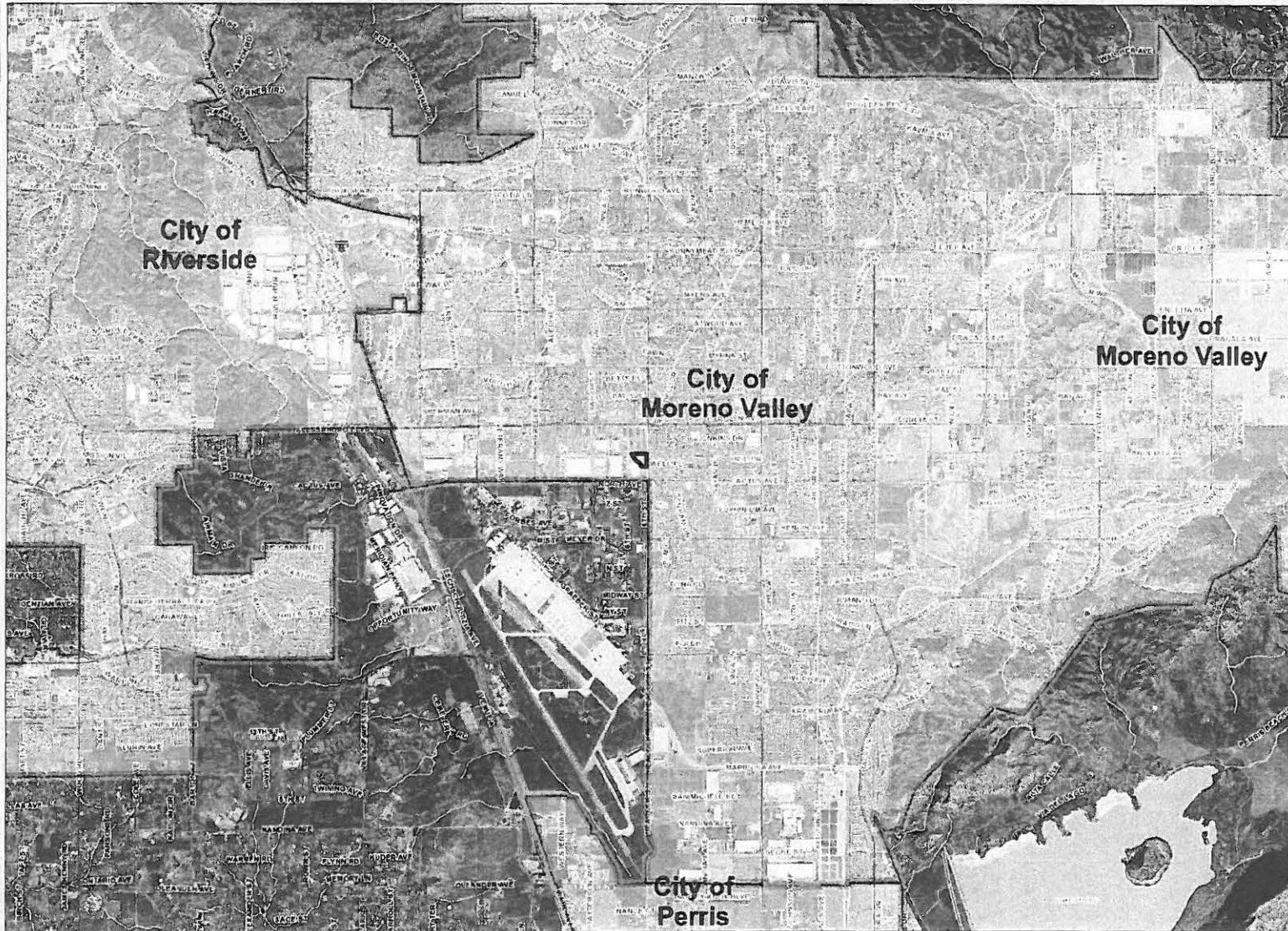


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My Map



Legend

- City Boundaries
- Cities
- adjacent_highways
- Interstate
- Interstate 3
- State Highways, 60
- State Highways 3
- US HWY
- OUT
- highways_large
- HWY
- INTERCHANGE
- INTERSTATE
- USHWY
- counties
- cities

Notes



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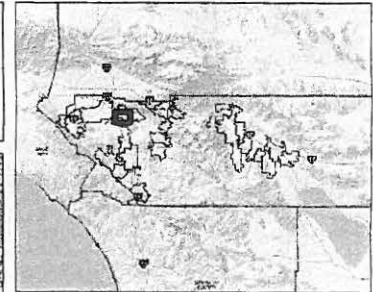


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My Map



Legend

- City Boundaries
- Cities
- highways
 - HWY
 - INTERCHANGE
 - INTERSTATE
 - OFFRAMP
 - ONRAMP
 - USHWY
- majorroads
- counties
- cities
- hydrographylines
- waterbodies
 - Lakes
 - Rivers



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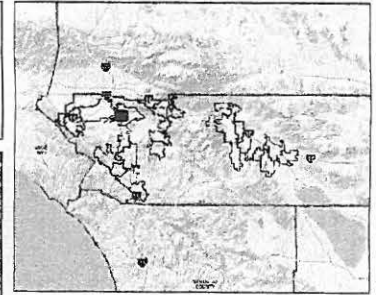
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Notes

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- City Boundaries
- Cities
- roads
- highways
- HWY
- INTERCHANGE
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- Rivers



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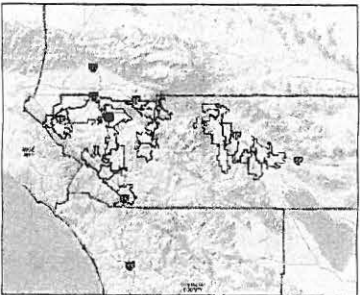
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- Rivers



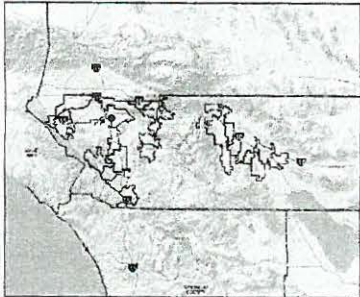
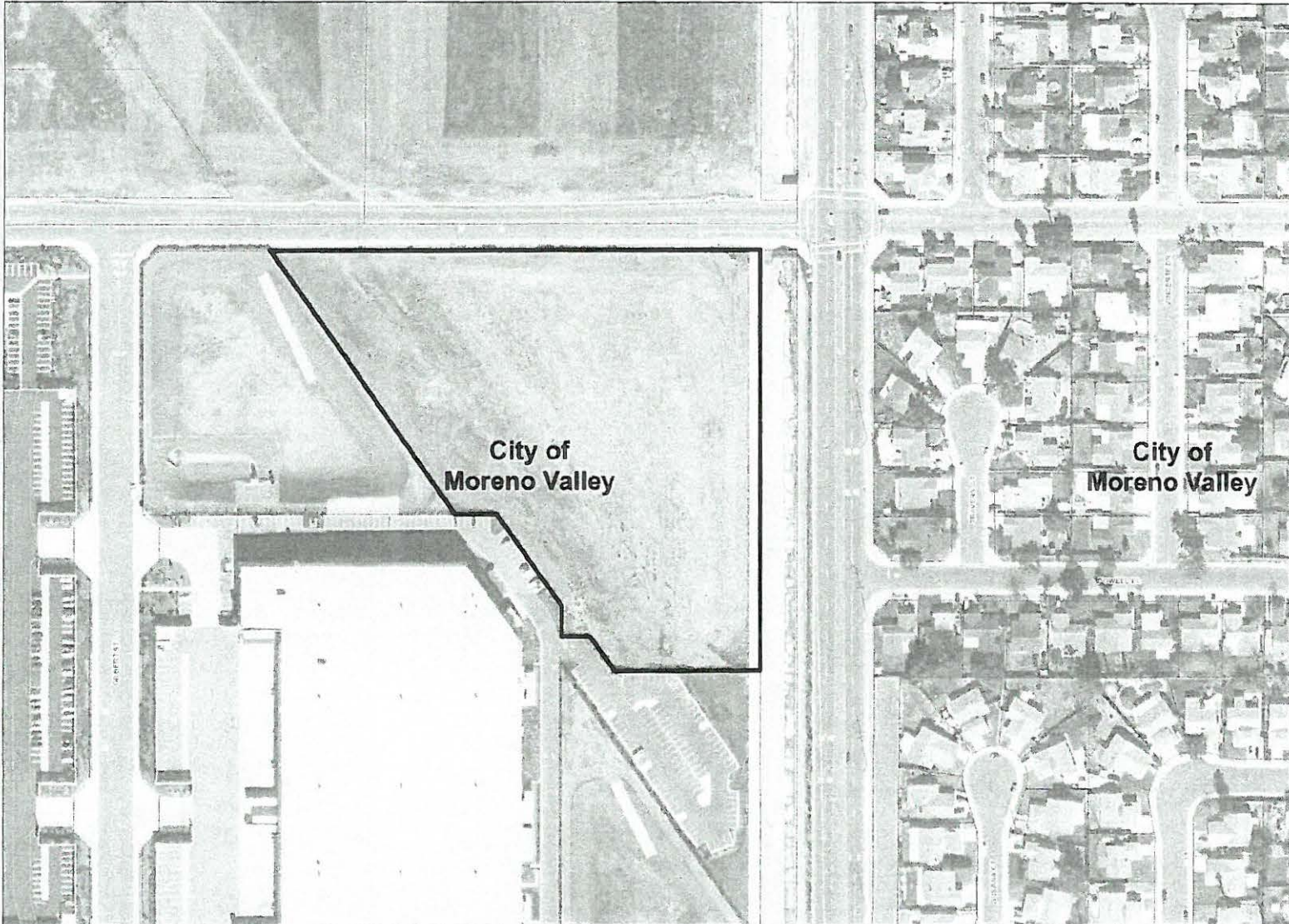
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- Lakes
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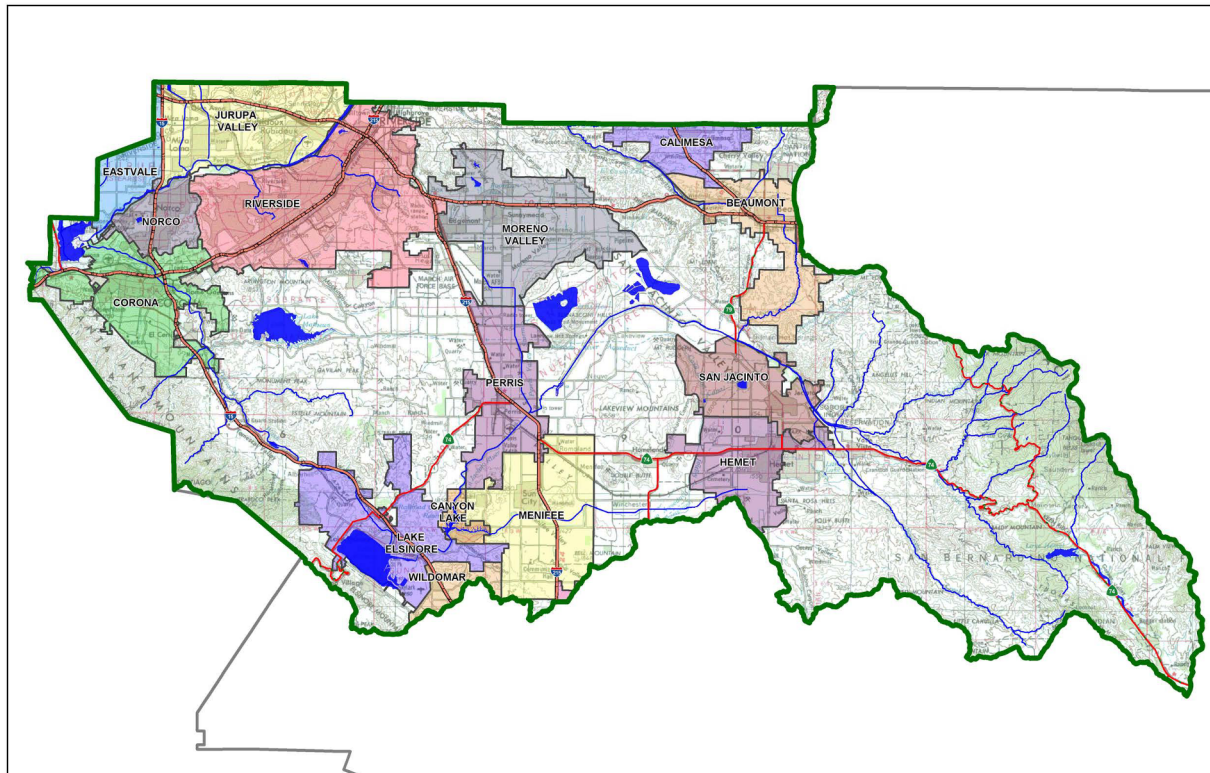
Project Specific Water Quality Management Plan

A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County

Project Title: Brodiaea Business Center

Development No:

Design Review/Case No:



- Preliminary
- Final

Original Date Prepared: September 2016

Revision Date(s):

*Prepared for Compliance with
Regional Board Order No. **R8-2010-0033***

Contact Information:

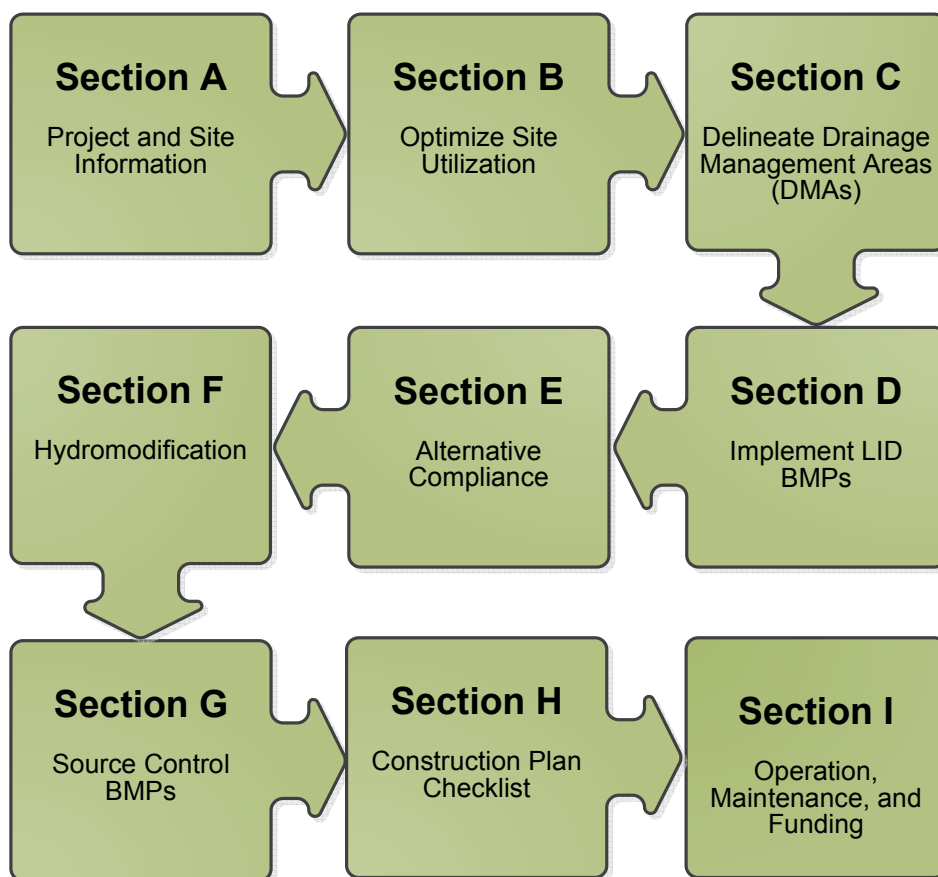
Prepared for:
 Core 5
 Alan Sharp
 17871 Mitchell North, Suite 200
 Irvine, CA 92614
 (951) 284-0273

Prepared by:
 Albert A. Webb Associates
 3788 McCray Street
 Riverside, CA 92506
 (951) 686-1070

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your “how-to” manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Core 5 by Albert A. Webb Associates for the Brodiaea Business Center project.

This WQMP is intended to comply with the requirements of City of Moreno Valley for Ordinance No. 827 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Moreno Valley Water Quality Ordinance (Municipal Code Chapter 8.10).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature

Date

Owner's Printed Name

Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. R8-2010-0033 and any subsequent amendments thereto."

Preparer's Signature

Date

Preparer's Printed Name

Preparer's Title/Position

Preparer's Licensure:

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Commercial/Industrial
Planning Area:	Not Applicable
Community Name:	Not Applicable
Development Name:	Brodiaaea Business Center
PROJECT LOCATION	
Latitude & Longitude (DMS): 39°54'46.08"N, 117°14'41.64"W	
Project Watershed and Sub-Watershed: Santa Ana, San Jacinto Valley	
APN(s): 297-170-078-5	
Map Book and Page No.: Thomes Brothers Map Guide, Page 717, Grid E6	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial/Industrial
Proposed or Potential SIC Code(s) 1541 (General Contractors-Industrial Buildings & Warehouse), 4225 (General Warehousing & Storage)	1541, 4225
Area of Impervious Project Footprint (SF)	222,700
Total Area of <u>proposed</u> Impervious Surfaces within the Project Limits (SF)/or Replacement	222,700
Does the project consist of offsite road improvements?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Does the project propose to construct unpaved roads?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is the project part of a larger common plan of development (phased project)?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
EXISTING SITE CHARACTERISTICS	
Total area of <u>existing</u> Impervious Surfaces within the project limits (SF)	0
Is the project located within any MSHCP Criteria Cell?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is a Geotechnical Report attached?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	
What is the Water Quality Design Storm Depth for the project?	0.65

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
<i>Heacock Channel</i>	<i>None</i>	<i>None</i>	<i>Not a water body classified as RARE</i>
<i>Perris Valley Storm Drain (Channel)</i>	<i>None</i>	<i>None</i>	<i>Not a water body classified as RARE</i>
<i>San Jacinto River (Reach 3) (HU# 802.11)</i>	<i>None</i>	<i>Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD</i>	<i>Not a water body classified as RARE</i>
<i>San Jacinto River (Reach 2)(HU#802.11)</i>	<i>None</i>	<i>AGR, GWR, WILD, MUN, REC1, REC2, WARM</i>	<i>Not a water body classified as RARE</i>
<i>Canyon Lake (HU# 802.11, 802.12)</i>	<i>Nutrients, Pathogens</i>	<i>MUN, AGR, GWR, REC1, REC2, WARM, WILD</i>	<i>Not a water body classified as RARE</i>
<i>San Jacinto River (Reach 1) (HU#802.31, 802.32)</i>	<i>None</i>	<i>AGR, GWR, MUN, REC1, REC2, WARM, WILD</i>	<i>Not a water body classified as RARE</i>
<i>Lake Elsinore (HU# 802.31)</i>	<i>PCBs, (Organic Compound), Nutrients, Organic Enrichment (Low DO), Sediment Toxicity, Unknown Toxicity</i>	<i>REC1, REC2, WARM, WILD</i>	<i>Not a water body classified as RARE</i>

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
US Army Corps of Engineers, CWA Section 404 Permit	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
Statewide Construction General Permit Coverage	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Statewide Industrial General Permit Coverage	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
Other (please list in the space below as required) Grading Permit	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The existing site topography drains towards the south east side of the project site. The current stormwater runoff flows into a riser that drains directly into an open channel, Heacock Channel. The proposed drainage pattern conveys flows in a similar approach as the existing pattern.

Did you identify and protect existing vegetation? If so, how? If not, why?

No, currently the project site is vacant and has little or no vegetation. Dense vegetation or well-established trees do not exist.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

No, the existing conditions of the project site did not meet the required infiltration rate.

Did you identify and minimize impervious area? If so, how? If not, why?

Yes, impervious areas were minimized given the proposed site usage and required materials. The minimum landscaping pervious cover was achieved per code.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes, all on-site runoff will sheet flow into the water quality basin.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s) ¹	Area (Sq. Ft.)	DMA Type
L-A	LANDSCAPE	69,540	D
R-A	ROOF	100,190	D
H-A	HARDSCAPE	122,490	D

¹Reference Table 2-1 in the WQMP Guidance Document to populate this column

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				Type 'C' DMAs that are draining to the Self-Retaining Area		
DMA Name/ ID	Post-project surface type	Area (square feet)	Storm Depth (inches)	DMA Name / ID	[C] from Table C.4	Required Retention Depth (inches)
		[A]	[B]		[C]	

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
L-A, R-A, H-A	WATER QUALITY BASIN A

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? Y N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermitttee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? Y N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site...	YES	NO
...have any DMAs with a seasonal high groundwater mark shallower than 10 feet? If Yes, list affected DMAs:		X
...have any DMAs located within 100 feet of a water supply well? If Yes, list affected DMAs:		X
...have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact? If Yes, list affected DMAs:		X
...have measured in-situ infiltration rates of less than 1.6 inches / hour? If Yes, list affected DMAs: DMA-A	X	
...have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface? If Yes, list affected DMAs:		X
...geotechnical report identifies other site-specific factors that would preclude effective and safe infiltration? Describe here:		X

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies:

- Reclaimed water will be used for the non-potable water demands for the project.
- Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).
- The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 69,540 SF

Type of Landscaping (Conservation Design or Active Turf): Conservation Design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 222,680 SF

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 1.05

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 233,814 SF

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
5.4 Acres	1.6 Acres

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

*Projected Number of Daily Toilet Users: Project will require 4 toilets.**

Project Type: Industrial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 5.1 Acres

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 185

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 945

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

<u>Minimum required Toilet Users (Step 4)</u>	<u>Projected number of toilet users (Step 1)</u>
945 Users	*

*The minimum required amount of toilet users needed in order to make harvest and use feasible is significantly larger than what will be required for this project based on the building area, 100,000 SF.

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N/A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as

a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: Enter Value

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

- LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).
- A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

DMA-A will all drain into a bio-retention basin, WQ Basin A.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Enter BMP Name / Identifier Here		
	[A]		[B]	[C]	[A] x [C]			
L-A	69,540	LANDSCAPE	0.1	0.11	7,681.2	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
R-A	100,190	ROOF	1	0.89	89,369.5			
H-A	122,490	HARDSCAPE	1	0.89	109,261.1			
	292,220 $A_T = \Sigma[A]$				206,311.8 $\Sigma = [D]$	0.65 [E]	$11,175.2$ $[F] = \frac{[D] \times [E]}{12}$	11,200 [G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermitttee). Check one of the following Boxes:

LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- Or -

The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

DMA-A will be treated by a bio-retention basin.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil Grease &
<input type="checkbox"/> Detached Residential Development	P	N	P	P	N	P	P	P
<input type="checkbox"/> Attached Residential Development	P	N	P	P	N	P	P	P ⁽²⁾
<input type="checkbox"/> Commercial/Industrial Development	P ⁽³⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁵⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Automotive Repair Shops	N	P	N	N	P ^(4, 5)	N	P	P
<input type="checkbox"/> Restaurants (>5,000 ft ²)	P	N	N	N	N	N	P	P
<input type="checkbox"/> Hillside Development (>5,000 ft ²)	P	N	P	P	N	P	P	P
<input type="checkbox"/> Parking Lots (>5,000 ft ²)	P ⁽⁶⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁴⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

P = Potential

N = Not Potential

⁽¹⁾ A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

⁽²⁾ A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

⁽³⁾ A potential Pollutant is land use involving animal waste

⁽⁴⁾ Specifically petroleum hydrocarbons

⁽⁵⁾ Specifically solvents

⁽⁶⁾ Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage ²
Total Credit Percentage ¹	

¹Cannot Exceed 50%

²Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I _f	DMA Runoff Factor	DMA Area x Runoff Factor	Enter BMP Name / Identifier Here			
	[A]		[B]	[C]	[A] x [C]				
						Design Storm Depth (in)	Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)	Total Storm Water Credit % Reduction	Proposed Volume or Flow on Plans (cubic feet or cfs)
	$A_T = \sum[A]$				$\Sigma = [D]$	[E]	$[F] = \frac{[D] \times [E]}{[G]}$	$[F] \times (1-[H])$	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12

[H] is from the Total Credit Percentage as Calculated from Table E.2 above

[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High:** equal to or greater than 80% removal efficiency
- **Medium:** between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID ¹	Priority Concern to Mitigate ²	Pollutant(s) of	Removal Percentage ³	Efficiency

¹ Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

² Cross Reference Table E.1 above to populate this column.

³ As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermitttee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? Y N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration¹ of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? Y N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	Post-condition	% Difference
Time of Concentration	INSERT VALUE	INSERT VALUE	INSERT VALUE
Volume (Cubic Feet)	INSERT VALUE	INSERT VALUE	INSERT VALUE

¹ Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? Y N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

- a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.
- b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.
- c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

	2 year – 24 hour		
	Pre-condition	Post-condition	% Difference
Peak Flow Rate	0.159 cfs	0.173 cfs	8.8%

The top of grate will be positioned at a higher elevation to hold the existing 2-year, 24-hour storm event to address hydromodification. The outlet structure will have an opening that will behave as an orifice to restrict flow down to 0.17 cfs during the 2-year, 24-hour storm event. Calculations are included in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and “housekeeping”, that must be implemented by the site’s occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. **Identify Pollutant Sources:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.
2. **Note Locations on Project-Specific WQMP Exhibit:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.
3. **Prepare a Table and Narrative:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.
4. **Identify Operational Source Control BMPs:** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. <i>On-site storm drain catch basins and grated inlets. Locations are shown on the PWQMP Exhibit in Appendix 1.</i>	<i>On-site storm drain signage will utilize language, “No Dumping Drains to River”, or equally approved text that is consistent with the City of Perris’ requirements. Landscape area drains surrounded by vegetation will not be signed. Catch Basin Markers may be available from the Riverside County Flood Control and Water District Conservation District, call 951-955-1200 to verify.</i>	<i>Maintain and periodically repaint or replace inlet markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators. See applicable operational BMPs in Fact Sheet SC-44, “Drainage System Maintenance,” in Appendix 10 (CASQA Stormwater Quality Handbook at www.cabmphandbooks.com</i>

	<p><i>On-site drainage structures, including all storm drain clean outs, area drains, inlets, catch basins, inlet & outlet structures, forebays, & water treatment control basins shall be inspected and maintained on a regular basis to insure their operational adequacy.</i></p>	<p><i>Include the following in lessee agreements: "Tenants shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains"</i></p> <p><i>Maintenance should include removal of trash, debris, & sediment and the repair of any deficiencies or damage that may impact water quality.</i></p>
<p><i>B. Interior floor drains and elevator shaft sump</i></p>	<p><i>The interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer</i></p>	<p><i>Inspect and maintain drains to prevent blockages and overflow.</i></p>
<p><i>C. Landscape/Outdoor Pesticide Use</i></p>	<p><i>The final landscape shall be designed to accomplish all of the following:</i></p> <p><i>Preserve existing native trees, shrubs and ground cover to the maximum extent possible.</i></p> <p><i>Design landscape to minimize irrigation and runoff, to promote surface infiltration where appropriate and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.</i></p> <p><i>Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.</i></p> <p><i>Consider using pest-resistant plants, especially adjacent to hardscape.</i></p> <p><i>To insure successful establishments, select plants appropriate to site, soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency and plant interactions.</i></p> <p><i>Pesticide usage should be at a necessary minimum and be consistent with the instructions contained on product labels and with the regulations administered by the State Department of Pesticide Regulation.</i></p> <p><i>Pesticides should be used at an absolute minimum or not at all in the retention/infiltration basin. If used, it</i></p>	<p><i>Maintain landscaping using minimum or no pesticides</i></p> <p><i>See applicable operational BMPs in "What you should know for.... Landscape and Gardening" at http://rcflood.org/stormwater and Appendix 10.</i></p> <p><i>Provide IPM information to new owners, lessees and operators.</i></p> <p><i>Landscape maintenance should include mowing, weeding, trimming, removal of trash & debris, repair of erosion, re-vegetation, and removal of cut & dead vegetation.</i></p> <p><i>Irrigation maintenance should include the repair of leaky or broken sprinkler heads, the maintaining of timing apparatus accuracy, and the maintaining of shut off valves in good working order.</i></p>

	<i>should not be applied in close proximity to the rainy season.</i>	
<i>D. Refuse Trash Storage areas</i>	<p><i>Trash container storage areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements from the surrounding area, and screened or walled to prevent off-site transport of trash.</i></p> <p><i>Trash dumpsters (containers) shall be leak proof and have attached covers or lids.</i></p> <p><i>Trash enclosures shall be roofed per City standards and the details on the PWQMP Exhibit in Appendix 1.</i></p> <p><i>Trash compactors shall be roofed and set on a concrete pad per City standards. The pad shall be a minimum of one foot larger all around than the trash compactor and sloped to drain to a sanitary sewer line. Connection of trash area drains to the MS4 is prohibited.</i></p> <p><i>See CASQA SD-32 BMP Fact Sheets in Appendix 10 for additional information.</i></p> <p><i>Signs shall be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.</i></p>	<p><i>Adequate number of receptacles shall be provided. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered.</i></p> <p><i>Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs.</i></p> <p><i>Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, in Appendix 10, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbook at www.cabmphandbooks.com</i></p>
<i>E. Loading Docks</i>	<p><i>Loading docks will not be covered and are 4 feet above finished pavement surface.</i></p> <p><i>Spill kits are to be kept on-site at all times per SC-11.</i></p>	<p><i>Move loaded and unloaded items indoors as soon as possible.</i></p> <p><i>Inspect for accumulated trash and debris. Implement good housekeeping procedures on a regular basis. Sweep areas clean instead of using wash water. Loading docks will be kept in a clean and orderly condition, through a regular program of sweeping and litter control, and immediate clean up of any spills or broken containers. Property owner will ensure that loading docks will be swept as needed. Cleanup procedures will not include the use of wash-down water. Property owner will be responsible for implementation of loading dock housekeeping procedures</i></p> <p><i>See the Fact Sheet SC-30, in Appendix 10, "Outdoor Loading</i></p>

		<i>and Unloading” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com</i>
F. <i>Fire Sprinkler Test Water</i>	<i>Provide a means to drain fire sprinkler test water to the sanitary sewer.</i>	<i>See the note in the Fact Sheet SC-41, in Appendix 10, “Building and Grounds Maintenance”, in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com</i>
G. <i>Miscellaneous Drain or Wash Water or Other Sources</i> <i>Boiler drain lines</i> <i>Condensate drain lines</i> <i>Rooftop equipment</i> <i>Drainage sumps</i> <i>Roofing, gutters and trim</i> <i>Other sources</i>	<i>Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system</i> <i>Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur.</i> <i>Condensate drain lines may not discharge to the storm drain system.</i> <i>Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.</i> <i>Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.</i> <i>Avoid roofing, gutters and trim made of copper or other unprotected metals that may leach into runoff.</i> <i>Include controls for other sources as specified by local reviewer.</i>	
H. <i>Plazas, sidewalks, and parking lots</i>	<i>Spill kits are to be kept on-site at all times per SC-11.</i>	<i>Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.</i>

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)
DMA-A	WQ Basin A	<u>Plot Plan</u> Sheet 1

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: WQMP Covenant and Agreement

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

Y N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

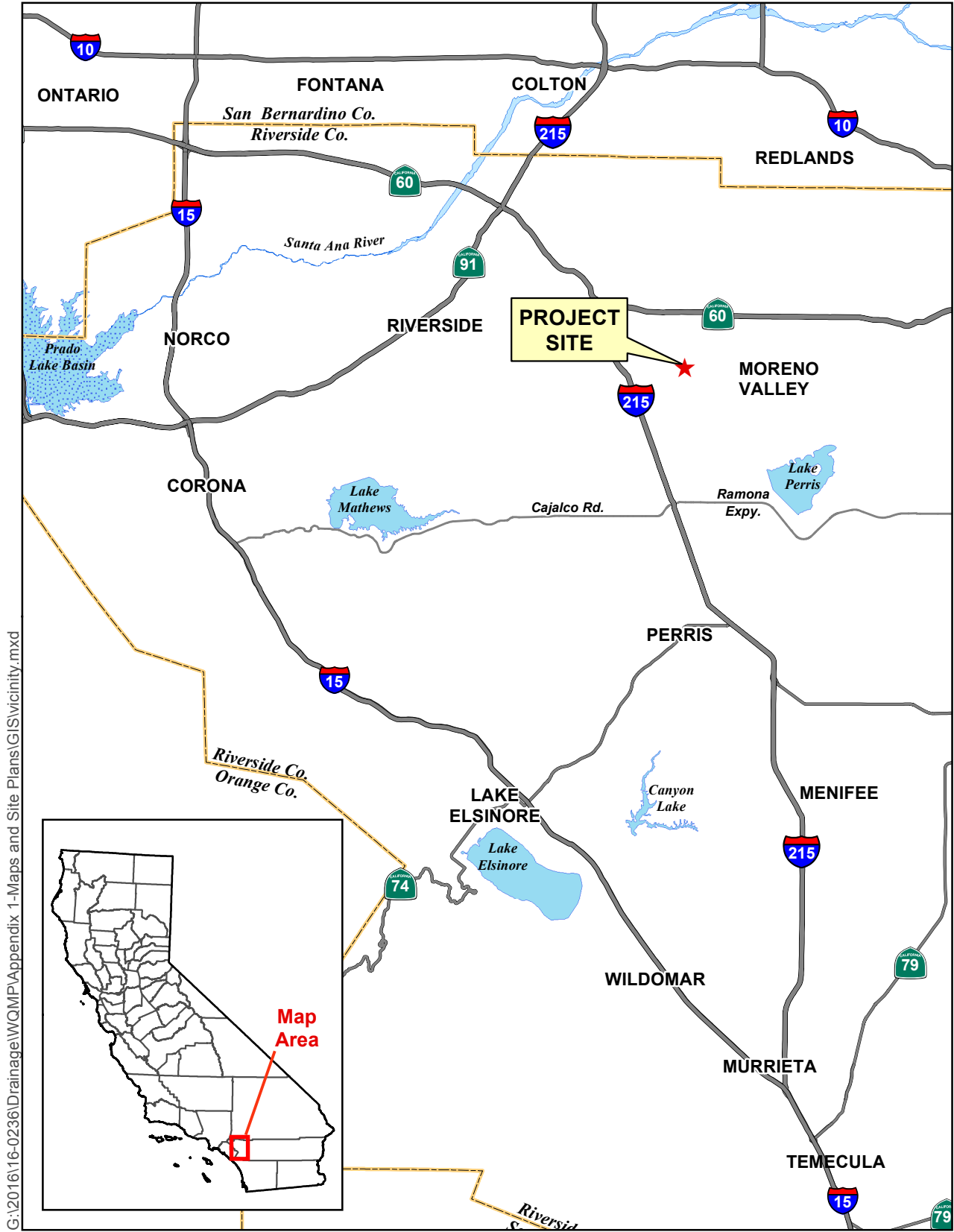
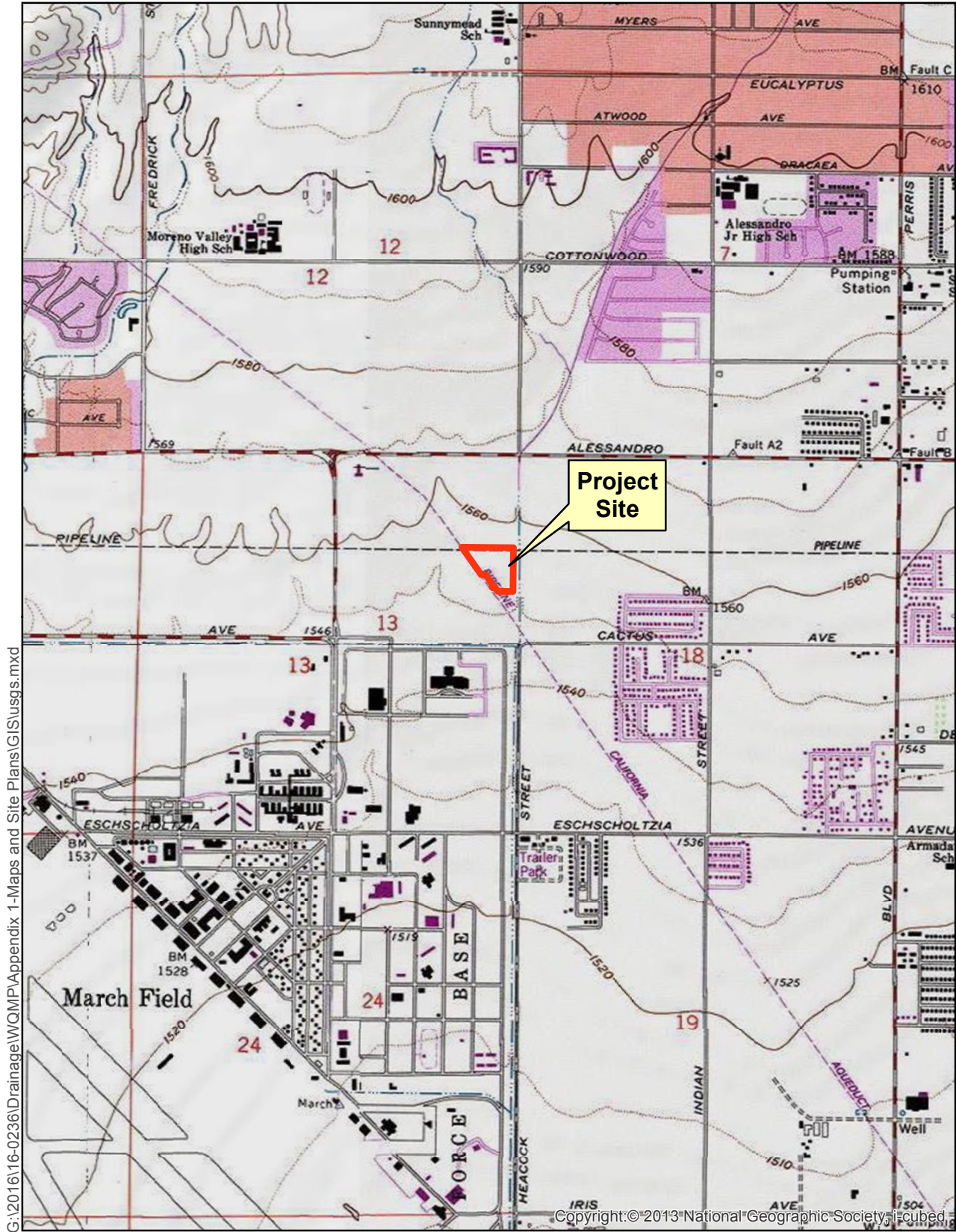


Figure 1. Vicinity Map

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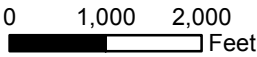
0 2.5 5 Miles



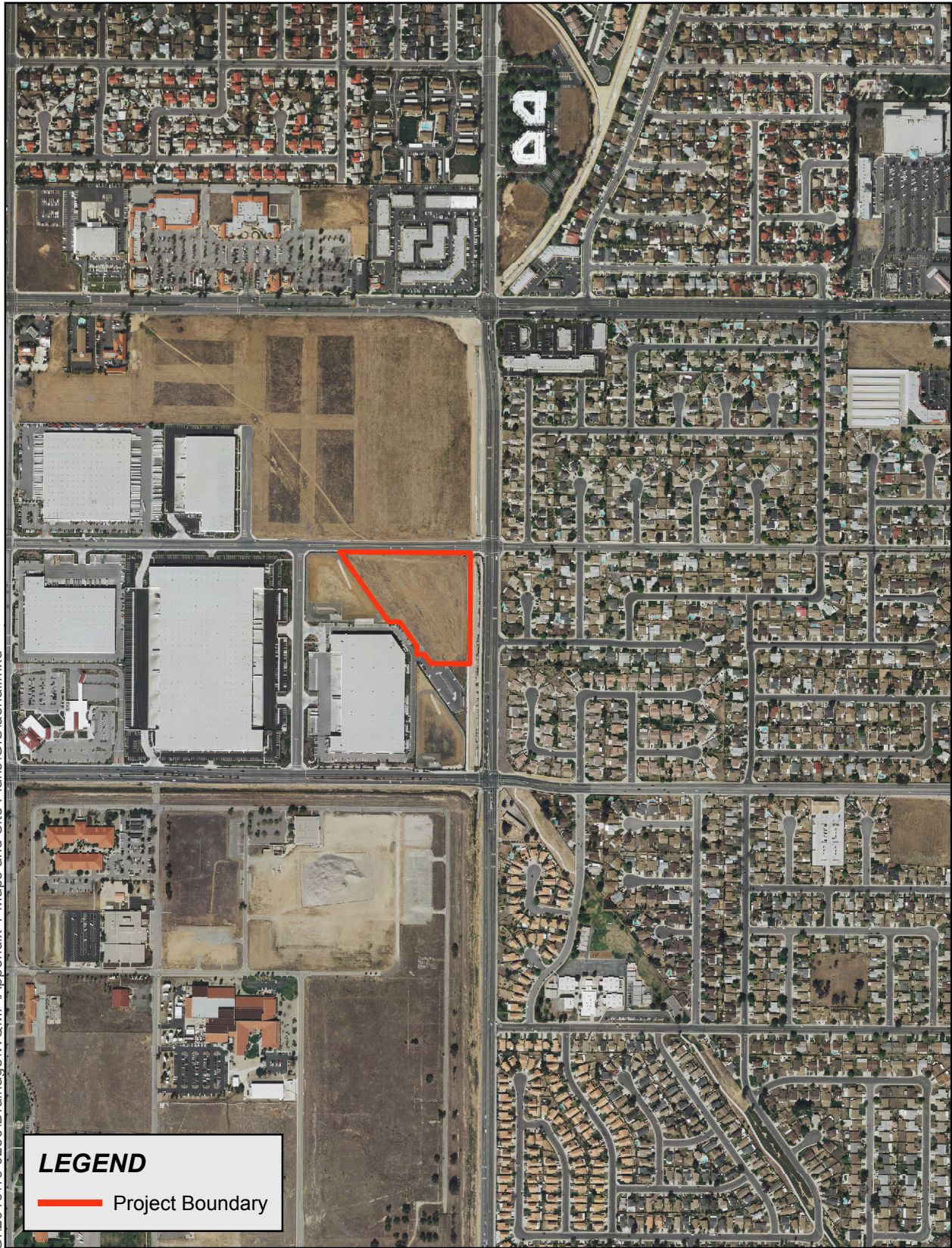


Sources: ESRI / USGS 7.5min Quad
 DRGs: RIVERSIDE EAST / SUNNYMEAD

Figure 2. USGS Topography Map



G:\2016\16-0236\Drainage\WQMP\Appendix 1-Maps and Site Plans\GIS\Aerial.mxd

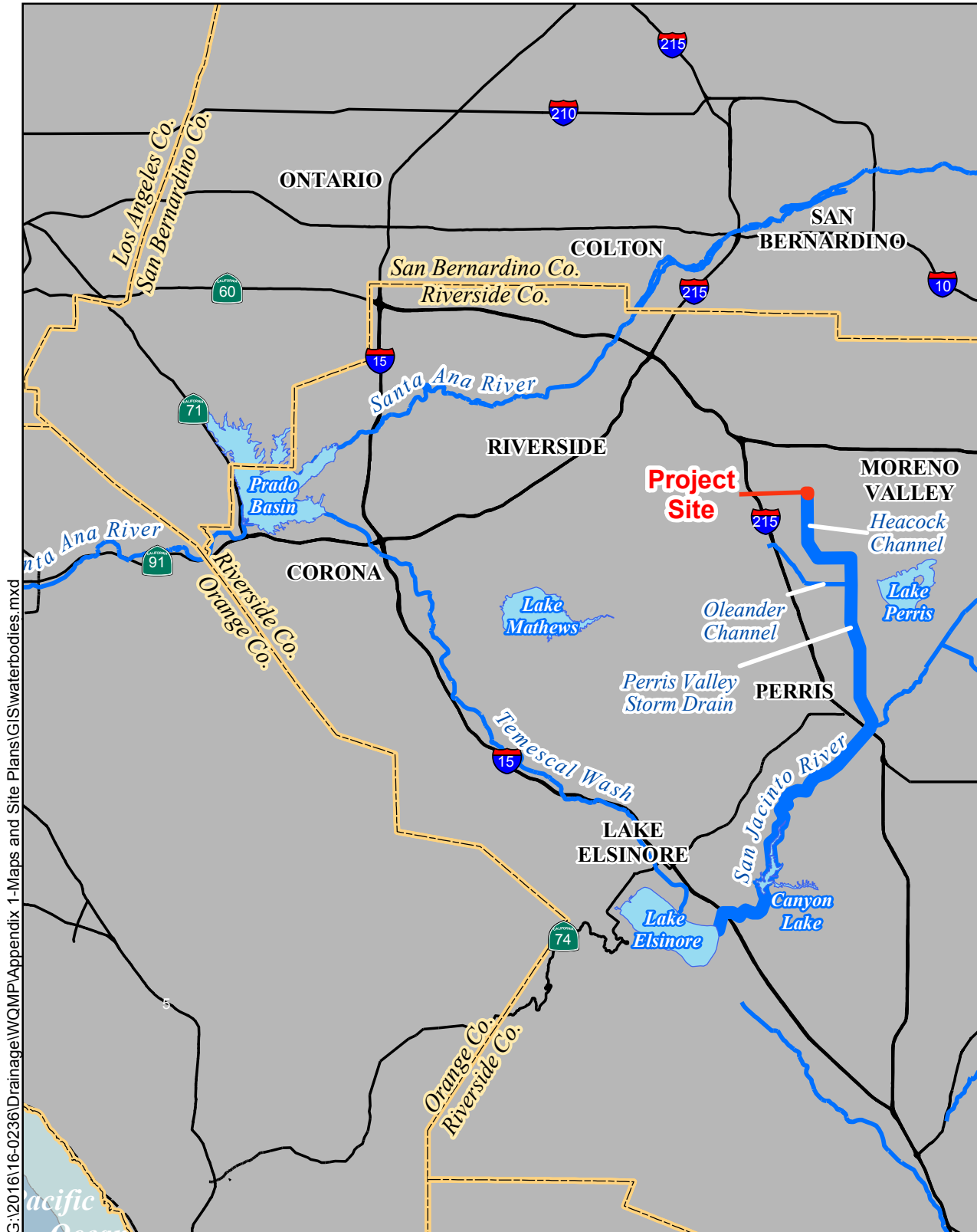


Sources: County of Riverside GIS, 2013; Eagle Aerial, April 2012.

Figure 3. Aerial Photograph

0 400 800 Feet





G:\2016\16-02361\Drainage\WQMP\Appendix 1-Maps and Site Plans\GIS\waterbodies.mxd

Sources: USGS 30 Meter DEM; USGS Digital Line Graph

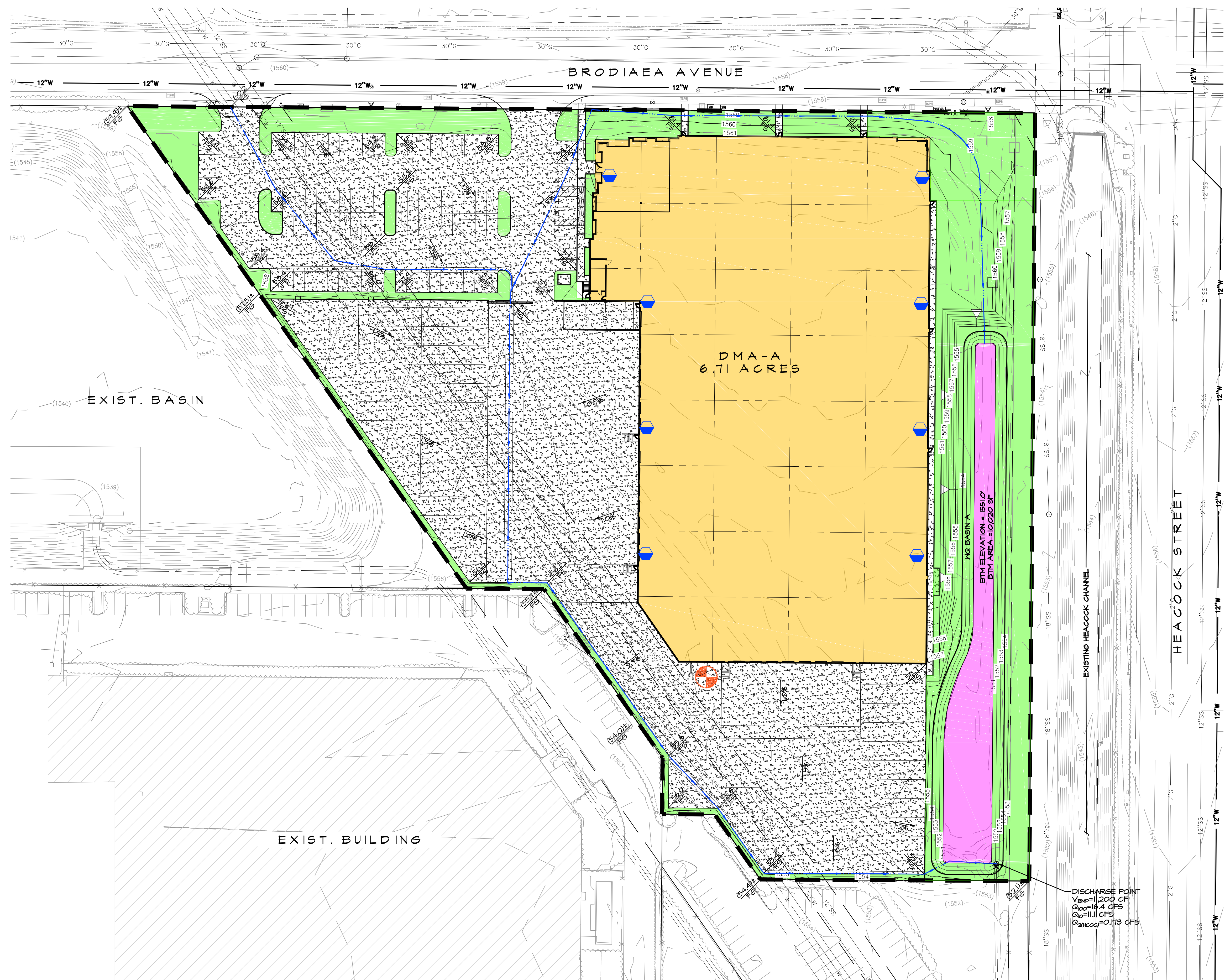
Figure 4. Receiving Waterbodies

0 2 4 6 Miles



Flowpath

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

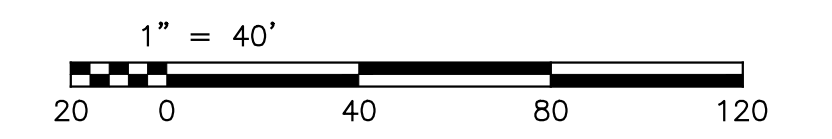
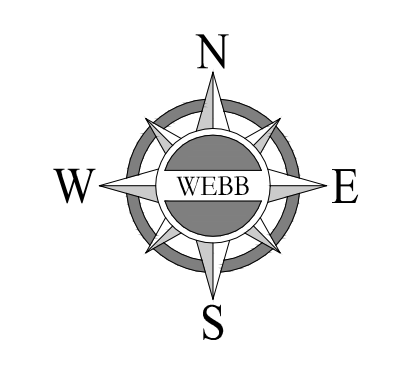
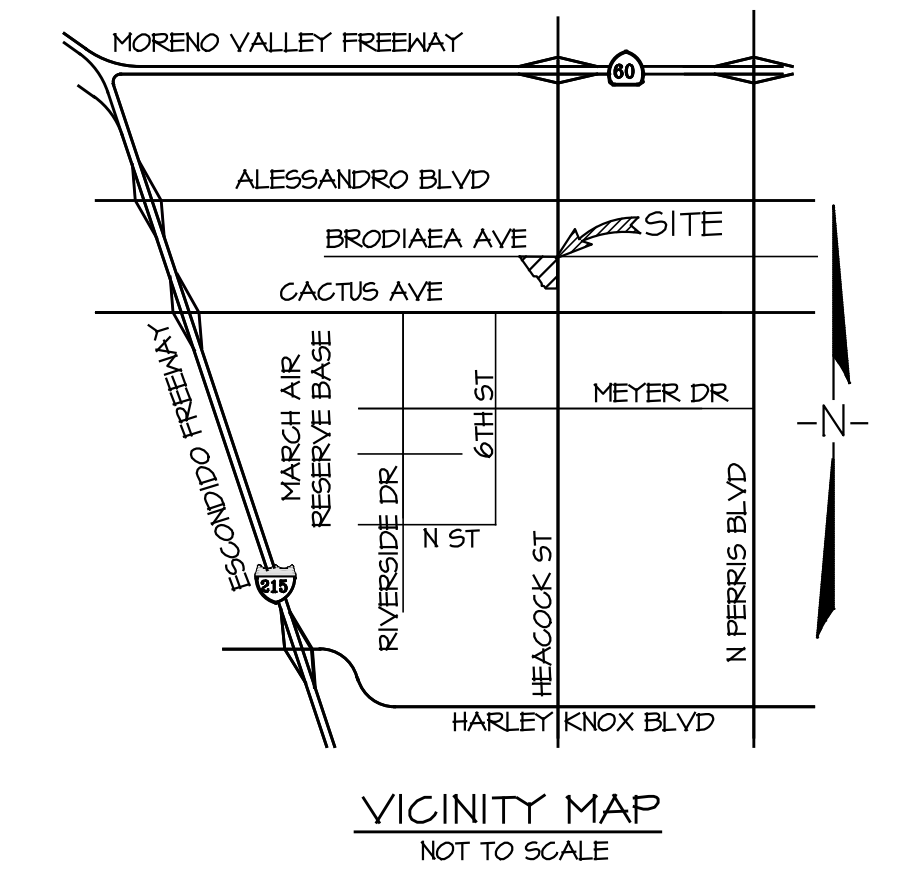


LEGEND

- DMA BOUNDARY
- LANDSCAPING
- SELF-RETAINING AREAS
- ROOF
- CONCRETE OR ASPHALT
- BIO-RETENTION FACILITY
- FLOW DIRECTION
- ROOF DRAIN DOWNSPOUTS
- TRASH ENCLOSURE

DRAINAGE MANAGEMENT AREA SUMMARY

LEGEND	DMA-ID	DMA-TYPE	AREA (SF)
	L-A	LANDSCAPE	69,540
	SR-A	SELF-RETAINING	0
	R-A	ROOFS	100,190
	H-A	HARDSCAPE	122,490

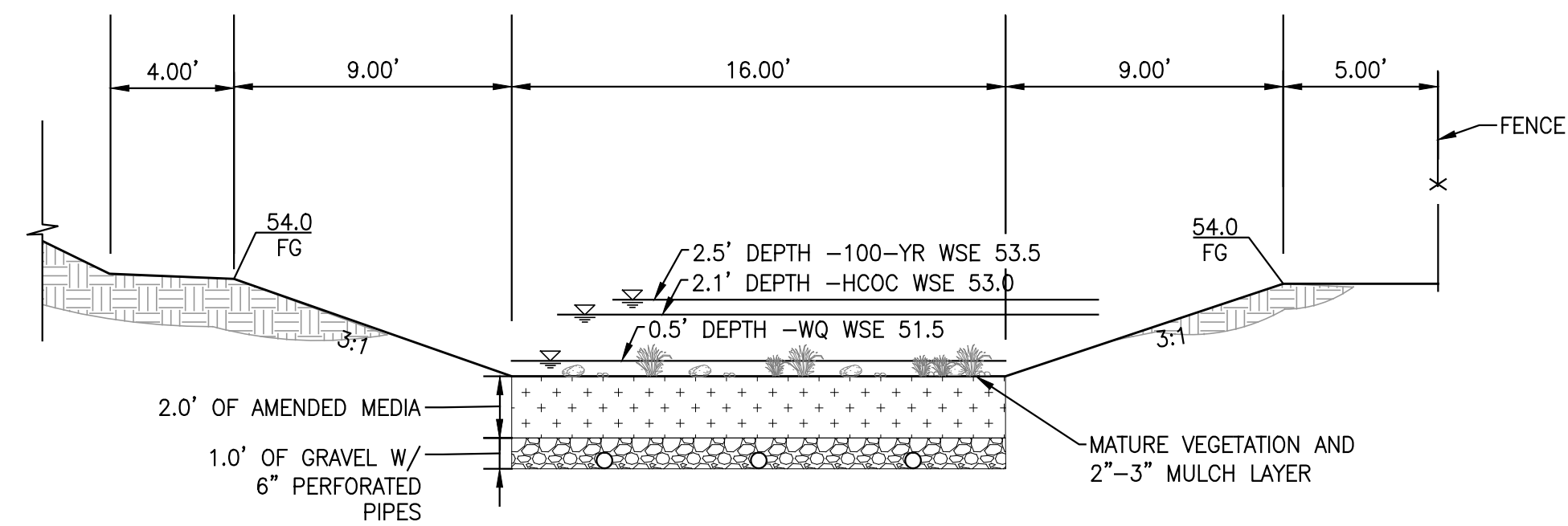


CITY OF MORENO VALLEY

**PRELIMINARY WQ MANAGEMENT PLAN
WATER QUALITY EXHIBIT**

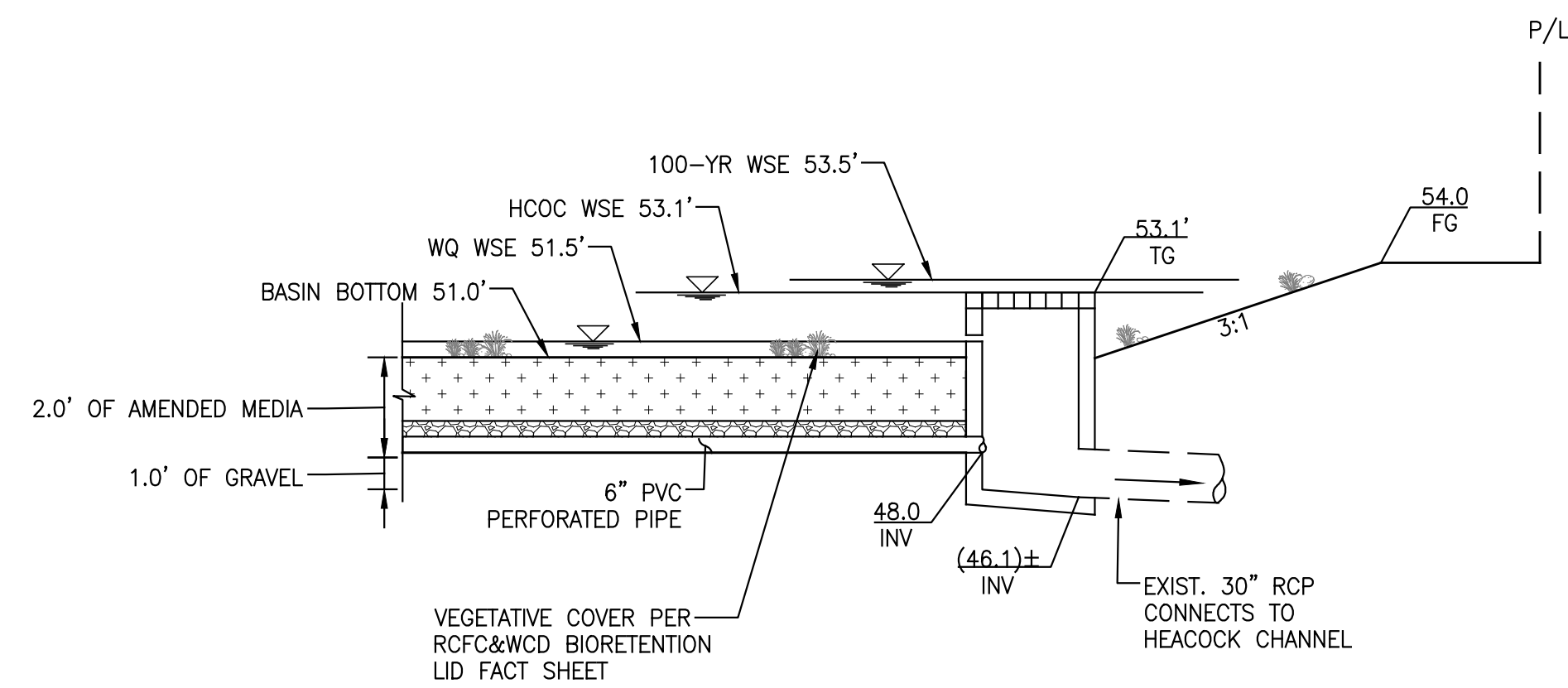
SCALE: 1"=40'	ALBERTA ENGINEERING CONSULTANTS 3788 McCORAY STREET RIVERSIDE CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 16-0236 SHEET 1 OF 2 SHEETS DWS. NO.
DATE: 4/13/16	WEBB ASSOCIATES	
DESIGNED: D.J.A.		
CHECKED: B.B.		
PLN CK REF:		
F.B.		

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))



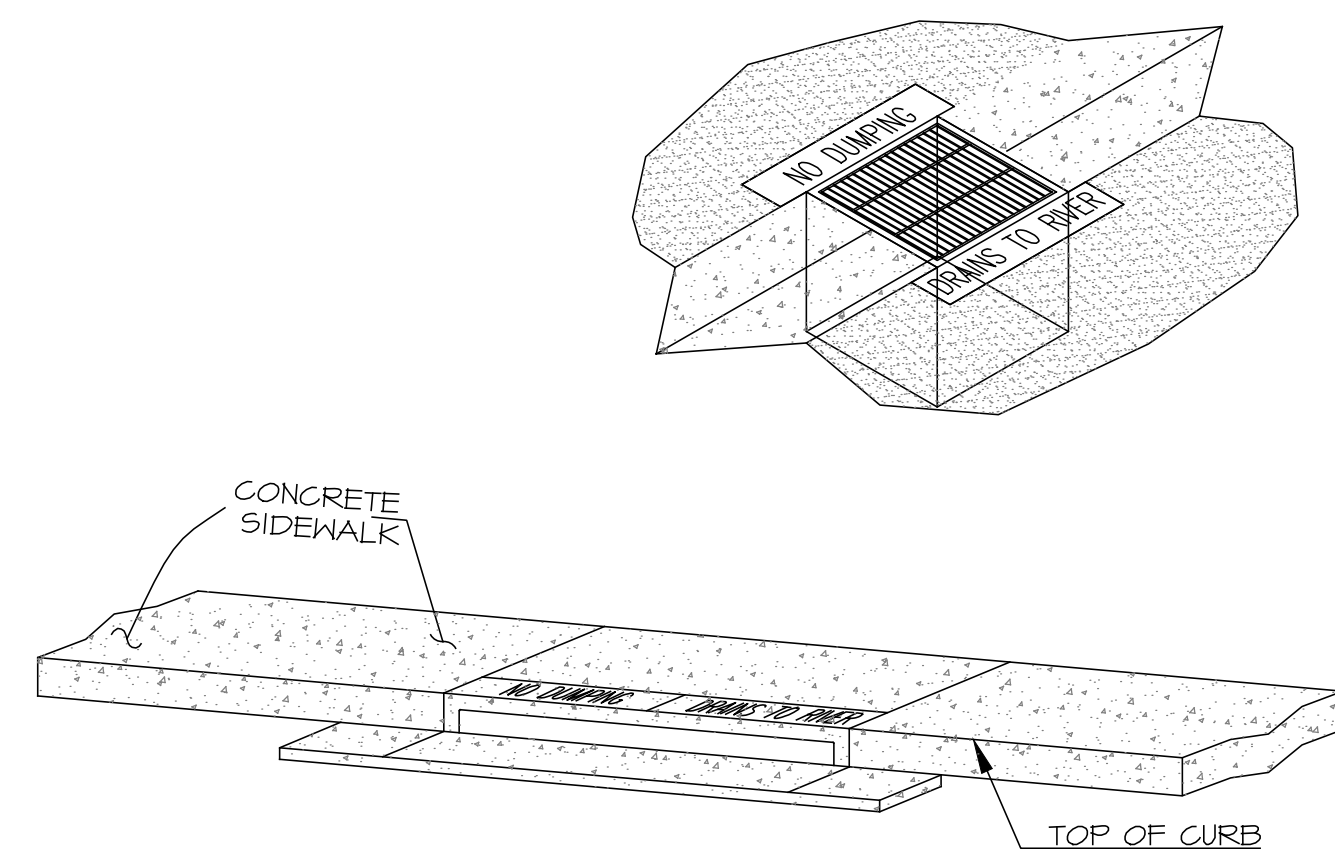
TYPICAL WQ BASIN A SECTION

N.T.S.



BASIN A OUTLET SCHEMATIC

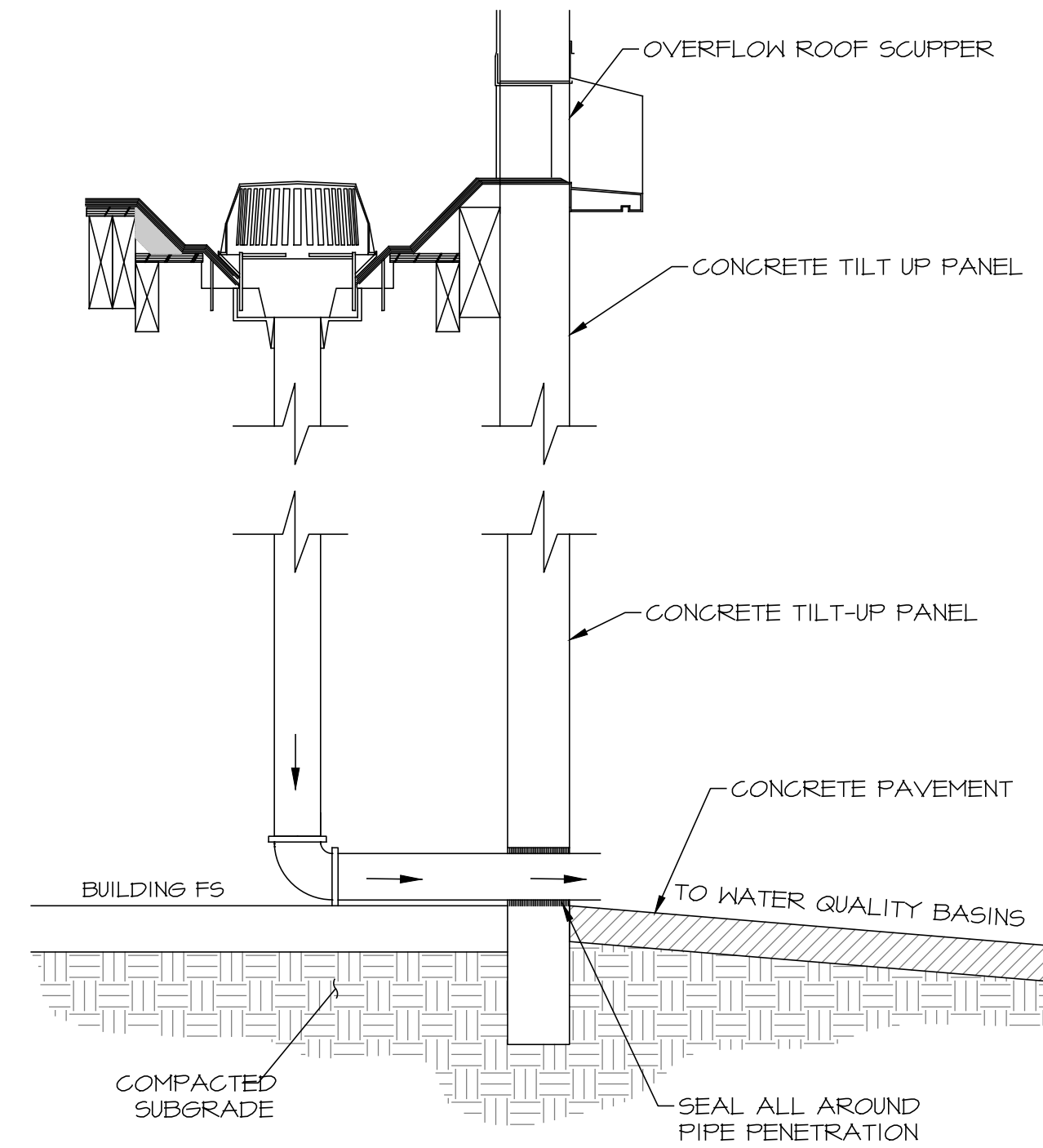
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- 1 STENCILS TO HAVE 2\"/>

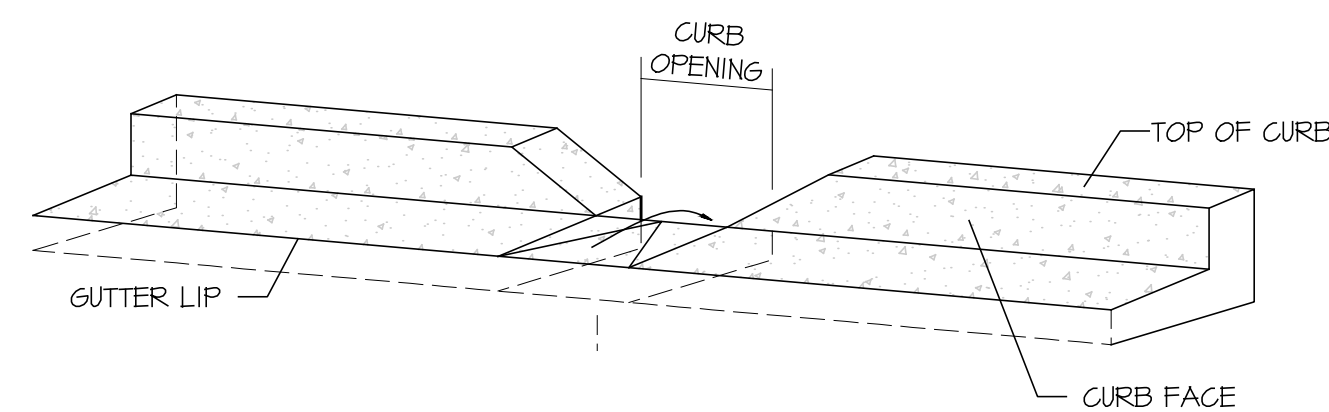
CATCH BASIN STENCILING DETAIL

N.T.S.



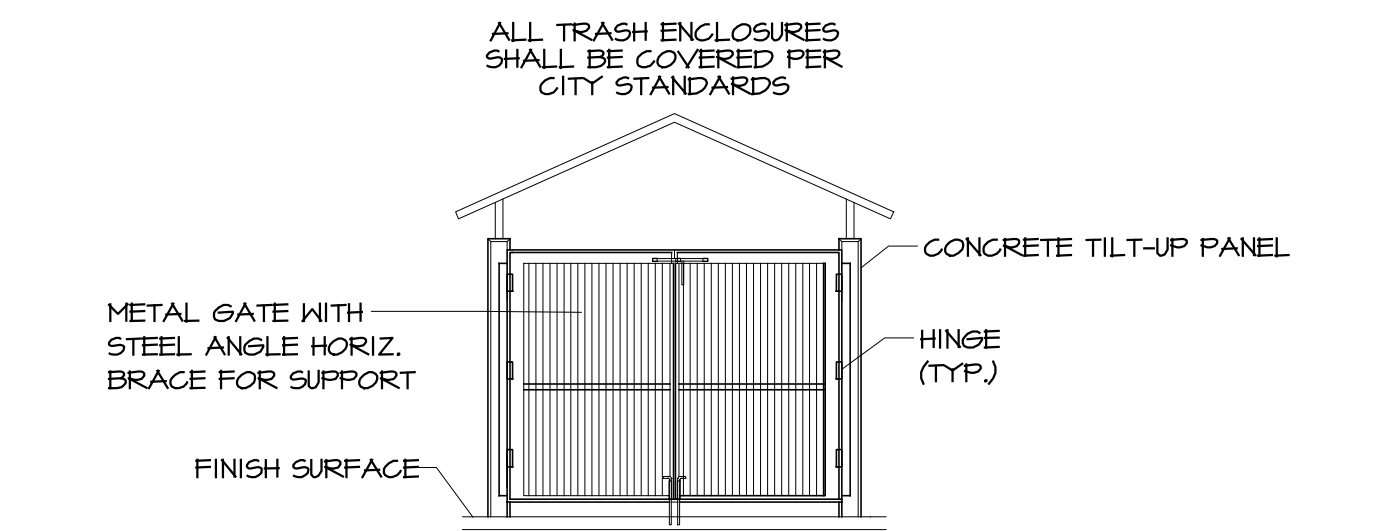
ROOF DRAIN DETAIL

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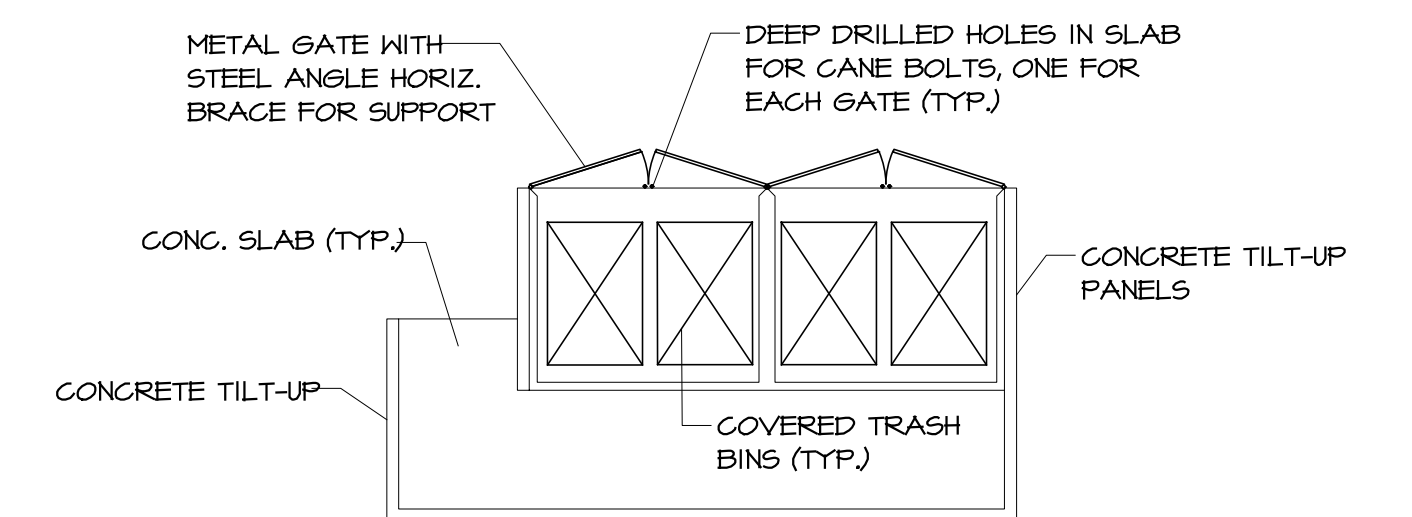
TYPICAL CURB OPENING DETAIL

N.T.S.



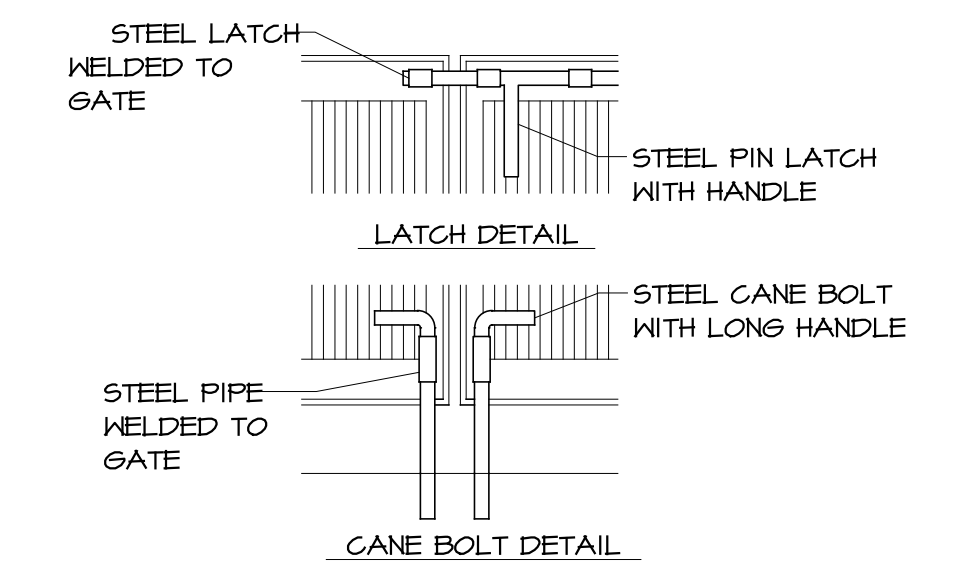
TRASH ENCLOSURE GATE ELEVATION

N.T.S.



TRASH ENCLOSURE PLAN DETAIL

N.T.S.



TRASH ENCLOSURE GATE LATCHES DETAIL

N.T.S.

NOTE:
LATCH AND CANE TO BE AT EXTERIOR SIDE OF GATES

CITY OF MORENO VALLEY			
PRELIMINARY WQ MANAGEMENT PLAN TYPICAL SECTIONS AND DETAILS			
SCALE: N/A	ALBERTA A. ENGINEERING CONSULTANTS	W.O. 16-0236	
DATE: 4/13/16	3788 MCCRAY STREET	RIVERSIDE CA 92506	SHEET 2
DESIGNED: D.J.A.	PH. (951) 686-1070		OF 2 SHEETS
CHECKED: B.B.	FAX (951) 788-1256		
PLN CK REF:			DWS. NO.
F.B.			

Appendix 2: Construction Plans

Grading and Drainage Plans

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

OWNER:
 COMPANY: PROLOGIS DEVELOPMENT SERVICES, INC
 CONTACT: DAMON AUSTIN
 ADDRESS: 17777 CENTER COURT DR., N #100
 CERRITOS, CA 90703
 PHONE: (562) 345-4200

APPLICANT:
 COMPANY: CORE 5
 CONTACT: ALAN SHARP
 ADDRESS: 17871 MITCHELL NORTH, SUITE 200
 IRVINE, CA 92614
 PHONE: (951) 284-0273

ENGINEER:
 COMPANY: ALBERT A. WEBB ASSOCIATES
 CONTACT: DJ ARELLANO
 ADDRESS: 3708 MCCRAY ST
 RIVERSIDE, CA 92506
 PHONE: (951) 686-1070
 FAX: (951) 788-1256

ARCHITECT
 COMPANY: RGA ARCHITECTS
 CONTACT: MIKE GILL
 ADDRESS: 15231 ALTON PARKWAY, SUITE #100
 IRVINE, CA 92618
 PHONE: (949) 863-1770
 FAX: (949) 863-0851

TOPOGRAPHY:
 INLAND AERIAL SURVEY
 DATED 8-15-16

A.P.N.
 297-170-078-5

ACREAGE
 GROSS SITE AREA: 6.71 AC.
 NET SITE AREA: 6.71 AC.

EARTHWORK ESTIMATE:
 CUT: 31,300 CY
 FILL: 24,110 CY
 SHRINKAGE: 2,270 CY
 NET: 0 CY BALANCED

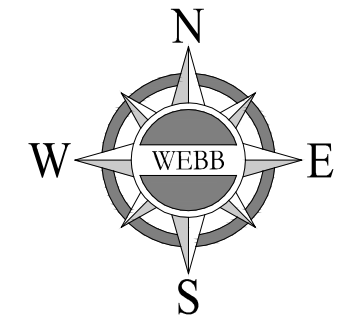
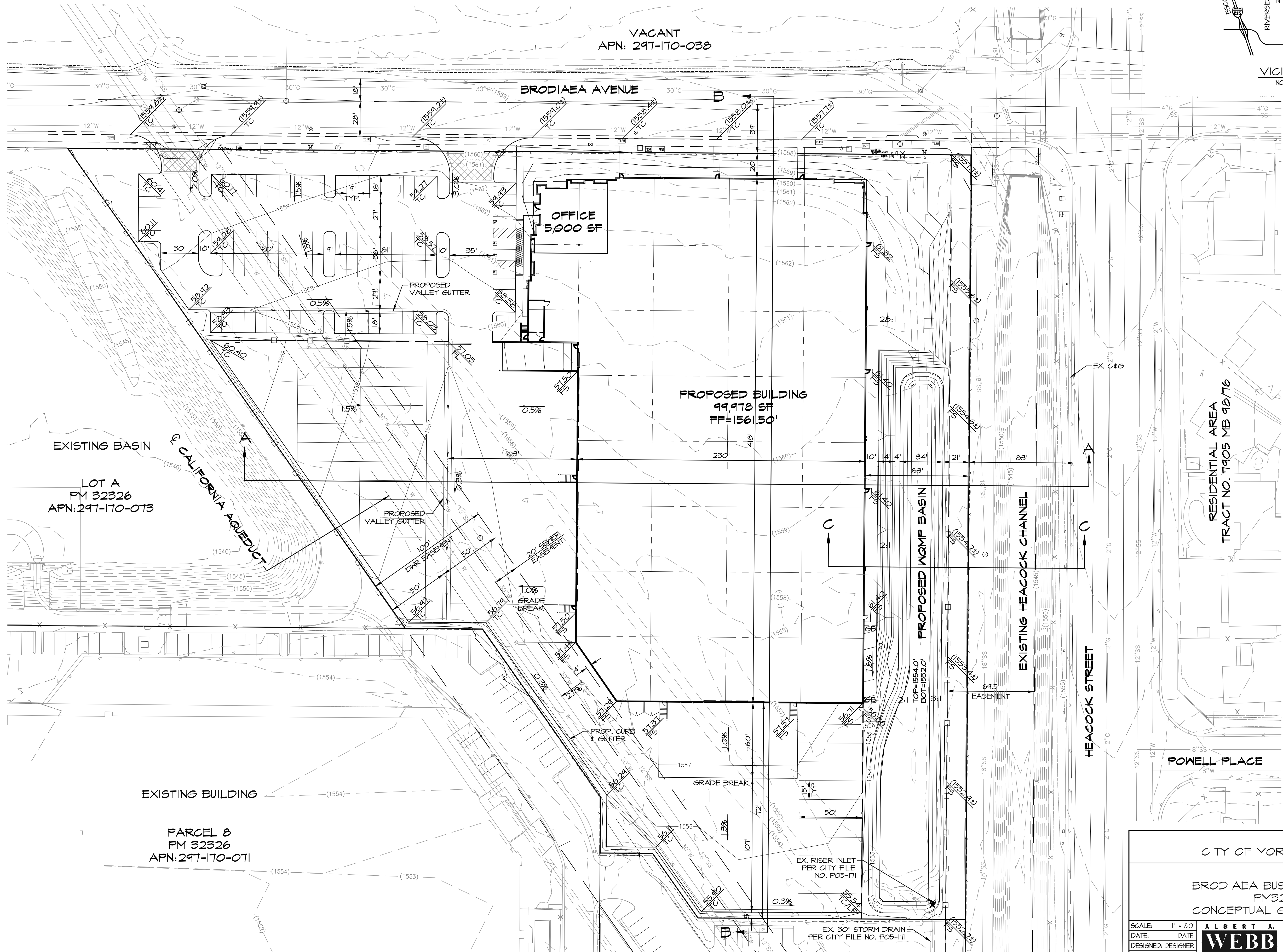
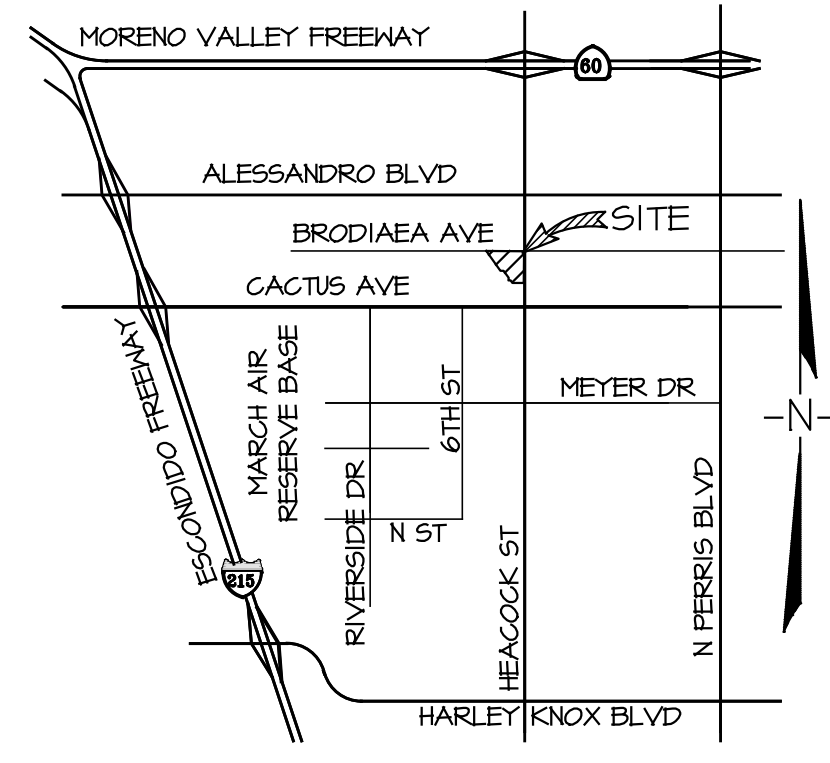
LEGEND

- ===== PROPOSED SCREEN WALL
- PROPOSED FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- (1475) --- EXISTING CONTOURS
- 1475 --- PROPOSED CONTOURS
- EX W --- EXISTING WATER LINE
- EX SS --- EXISTING SEWER LINE
- EX SD --- EXISTING STORM DRAIN
- G --- EXISTING GAS LINE
- E --- EXISTING ELECTRICAL LINE
- F5 FINISH SURFACE
- FL FLOW LINE
- GB GRADE BREAK
- GRND GROUND
- LP LOW POINT
- MAX MAXIMUM
- PL PROPERTY LINE
- RM RIGHT OF WAY
- TYP TYPICAL

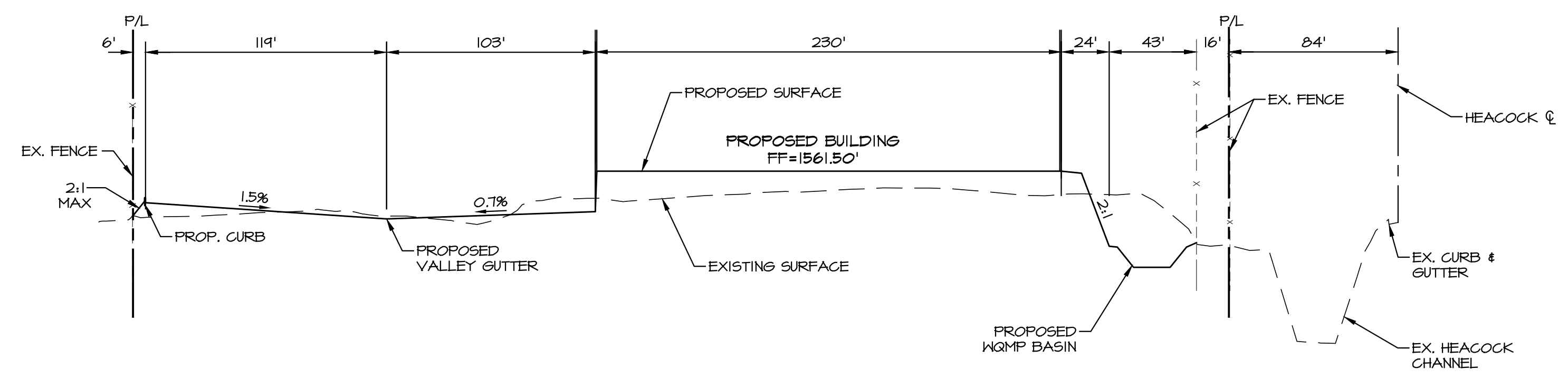
IN THE CITY OF MORENO VALLEY

BRODIAEA BUSINESS CENTER - PM32326

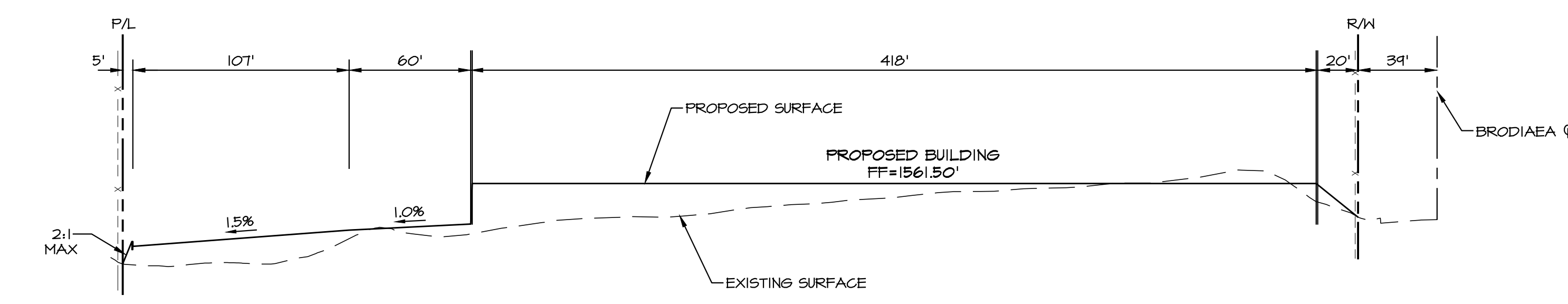
CONCEPTUAL GRADING PLAN



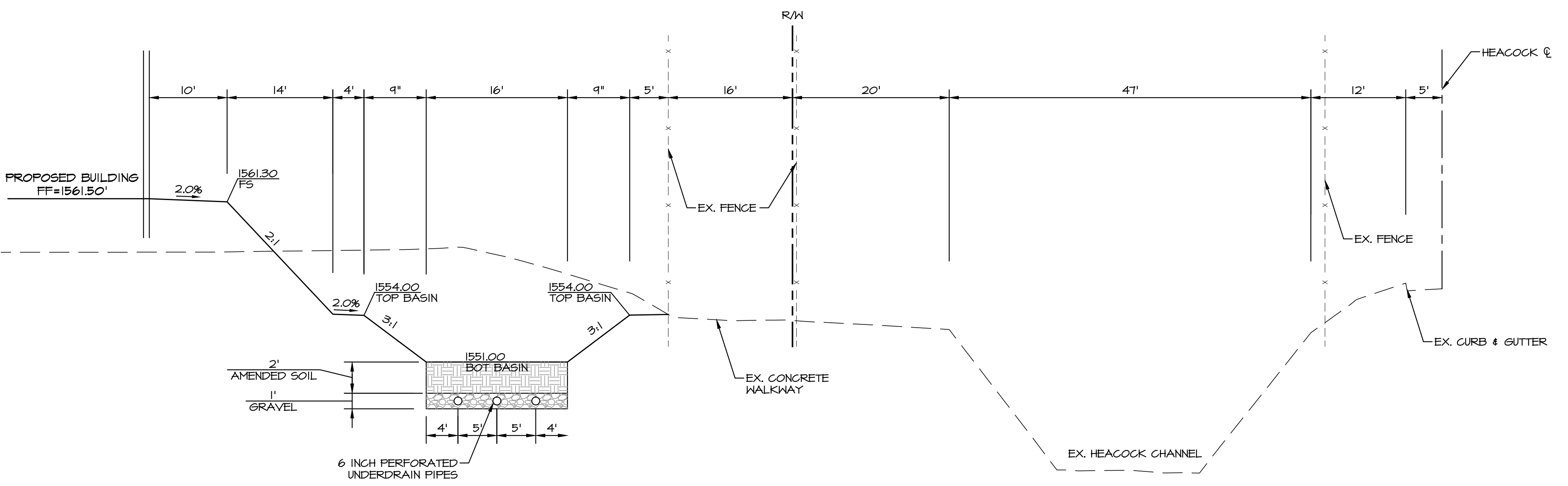
CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM32326 CONCEPTUAL GRADING PLAN			
SCALE: 1" = 80'	DATE:	ALBERT A. ENGINEERING CONSULTANTS 3708 MCCRAY STREET RIVERSIDE, CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	PROJECT NO. 2016-0236
DESIGNED: DESIGNER	DATE:	ALBERT A. ENGINEERING CONSULTANTS	SHEET 1
CHECKED: RB	DATE:	ALBERT A. ENGINEERING CONSULTANTS	OF 2 SHEETS
PLN CK REF: REF	DATE:	ALBERT A. ENGINEERING CONSULTANTS	DWS. NO.
F.B.:	DATE:	ALBERT A. ENGINEERING CONSULTANTS	



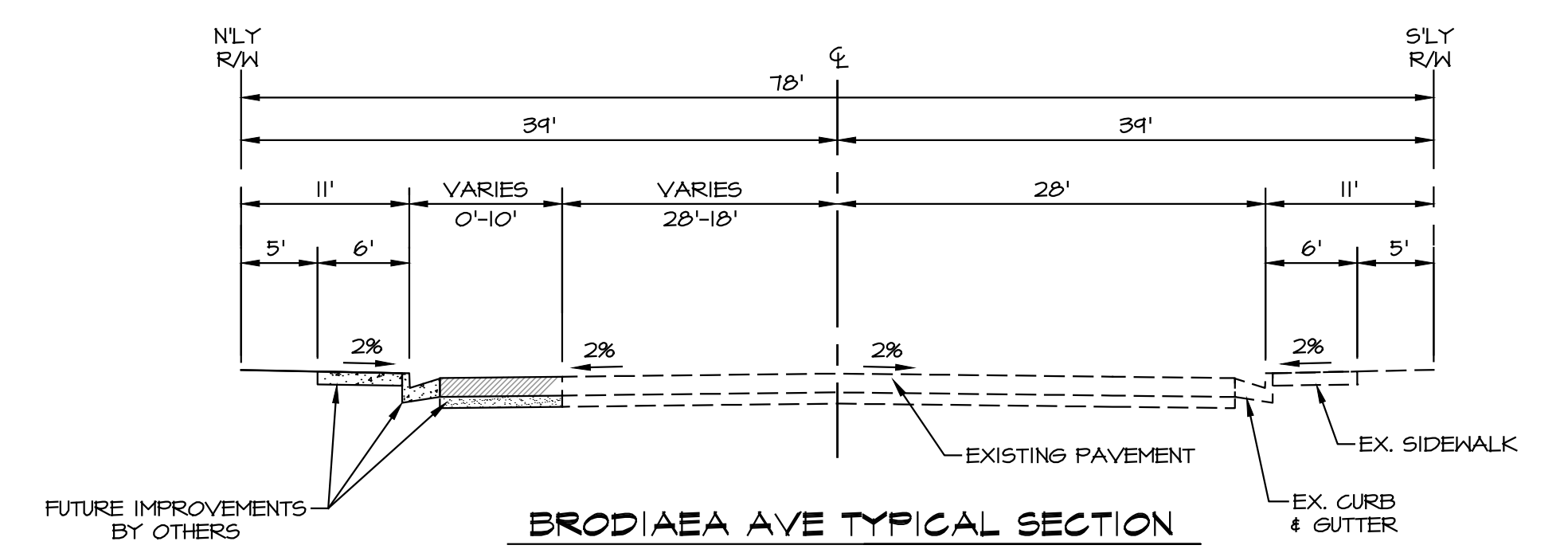
SECTION A-A
NOT TO SCALE



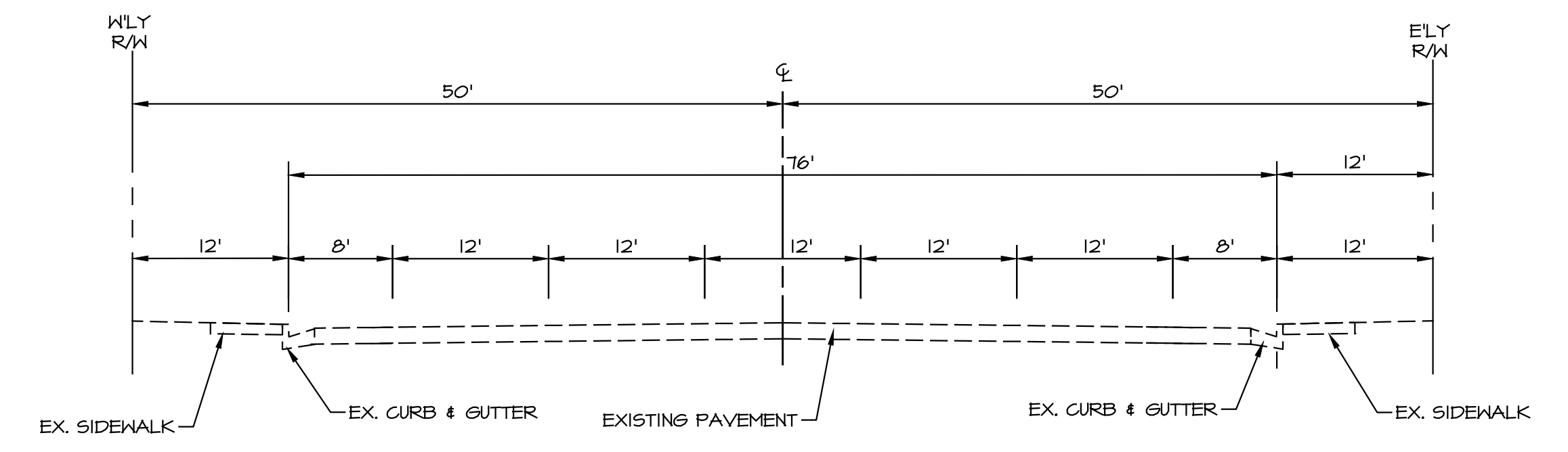
SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE



BRODIAEA AVE TYPICAL SECTION
INDUSTRIAL COLLECTOR STREET
STD. NO. MVSI-106A-0, NOT TO SCALE



HEACOCK ST TYPICAL SECTION
ARTERIAL STREET
STD. NO. MVSI-104A-0, NOT TO SCALE

CITY OF MORENO VALLEY			
BRODIAEA BUSINESS CENTER PM 32326 CROSS SECTIONS			
SCALE: 1" = 80'	DATE:	ENGINEERING CONSULTANTS 3708 MCGRAY STREET RIVERSIDE, CA 92506 PH. (951) 606-1070 FAX (951) 788-1256	NO. 2016-0236 SHEET 2
DESIGNED: DESIGNER	CHECKED: RB	ALBERT A. WEBB ASSOCIATES	OF 2 SHEETS
PLN CK REF: REF	F.B.:		DWS. NO.

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

February 16, 2015

KTR Capital Partners
601 South Figueroa Street, Suite 2225
Los Angeles, California 90017



Attention: Mr. Nicholas Pellico

Project No.: **15G102-2**

Subject: **Results of Infiltration Testing**
Proposed Buildings 7A and 7B - Centerpointe Business Park
SWC Brodiaea Avenue and Heacock Street
Moreno Valley, California

Reference: Results of Percolation Testing, Centerpointe Business Park – Lot 7, SWC Heacock Street and Brodiaea Avenue, Moreno Valley, California, dated February 29, 2008, prepared for Ridge Construction Services, prepared by Southern California Geotechnical, Inc., SCG Project No. 08G109-2.

Gentlemen:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in Proposal No. 14P441, dated December 16, 2014. The scope of services included a surface reconnaissance, subsurface exploration, field testing, and geotechnical engineering analysis to determine the infiltration rate of the onsite soils. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Site and Project Description

The subject site is located at the southwest corner of Brodiaea Avenue and Heacock Street in Moreno Valley, California. The site is bounded to the north by Brodiaea Avenue, to the east by Heacock Street, and to the southwest by an existing commercial/industrial building. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site is a triangular-shaped area, 5.8± acres in size. The site is vacant and undeveloped. The ground surface cover consists of exposed soil with sparse to moderate native grass and weed growth. Several small piles of debris were observed scattered throughout the site.

Detailed topographic information including existing site grades was not available at the time of this report. Based on visual observations made at the time of the subsurface investigation, the overall site topography generally slopes downward to the southwest at an estimated gradient of less than 3± percent.

Proposed Development

Based on the site plan provided to our office by the client, the site will be developed with two (2) commercial/industrial buildings. The northern building, identified as Building 7A, will be 49,994± ft² in size, and the southern building, identified as Building 7B, will be 49,973± ft² in size. These buildings will be surrounded by asphaltic concrete pavements in the automobile parking and drive lane areas, and Portland cement concrete (PCC) pavements in the truck court and loading dock areas.

Based on conversations with the project civil engineer, the site will utilize an on-site storm water disposal system. The storm water infiltration system will consist of one (1) detention basin and three (3) below grade infiltration chambers. The basin will be located in the south corner of the site. One infiltration chamber will be located in the northeast corner of the site, one chamber will be located in the west-central area of the site, and the last chamber will be located in the southern area of the site. We understand that the bottom of the basins will range from 6 to 8 feet below the existing site grades.

Previous Reports

SCG previously performed a percolation study at the subject site, referenced above. As part of this study, a total of five (5) borings were advanced to depths of 23± feet below the previously existing site grades. A 3-inch perforated plastic drain pipe was placed within the borings at the completion of drilling. The borehole annuli were backfilled with clean ¾-inch crushed gravel to prevent caving of the borehole sidewalls. The percolation tests borings were identified as P-1 through P-5.

The soil conditions encountered during drilling of the percolation borings consisted of alluvial silty fine sands, silty fine to medium sands, and clayey fine sands extending to a depth of at least 23± feet.

The percolation test hole was pre-saturated approximately 24 hours prior to testing. The percolation testing was in accordance with the Water Disposal for Individual Homes, Commercial and Industrial, published by the County of Riverside Department of Environmental Health, dated August 1981. It should be noted that this method is no longer acceptable to use to determine infiltration rates in the city of Moreno Valley. The percolation testing performed at the test locations consisted of refilling the bottom 15± feet of each percolation boring with water. The readings were taken at 30-minute intervals. After each interval, the percolation boring was refilled to establish 15± feet of free standing water. A percolation rate of 0.2 gallons per square foot per day was recommended for the design of the storm water infiltration system.

Subsurface Exploration

Scope of Exploration

The subsurface exploration consisted of four (4) backhoe excavated trenches, extending to a depths ranging from 6½ to 7½ ± feet below current existing site grades. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration

tests (identified as I-1 through I-4) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Artificial fill soils were encountered at the ground surface at Infiltration Test Nos. I-3 and I-4, extending to a depth of 1± foot below existing site grades. The artificial fill soils generally consist of loose to medium dense silty fine sands with trace amounts of medium to coarse sand and fine root fibers. The fill soils possessed a disturbed appearance with trace amounts of debris resulting in their classification as fill. Native alluvial soils were encountered beneath the fill soils at Infiltration Test Nos. I-3 and I-4 and at the ground surface at Infiltration Test Nos. I-1 and I-2. The near surface alluvium, extending to depths of 1½ to 4± feet below existing site grades, generally consist of silty fine sands and fine to medium sands with varying amounts of medium to coarse sand and fine to coarse gravel. The underlying alluvium consists of dense to very dense clayey fine to medium sands with trace amounts of coarse sand and fine gravel extending to the maximum depth explored of 7½± feet below the existing site grades. The Trench Logs, which illustrates the conditions encountered at the trench locations, is included with this report.

Infiltration Testing

We understand that the results of the testing will be used to prepare a preliminary design for the storm water infiltration systems that will be used to store and/or dispose of storm water at the subject site. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At each test location, the outer ring was driven 3± inches into the soil at the base of the trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a ten pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

The infiltration testing was performed at Infiltration Trench Nos. I-1 through I-4. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4± inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings were maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the test.

The schedule for readings was determined based on the observed soil type at the base of each backhoe excavated trench. Due to the varying silt and clay content of the exposed soils at each infiltration test location, the volumetric measurements were made at increments of 30 minutes.

The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets. The infiltration rates for all the tests are calculated in centimeters per hour and then converted to inches per hour. These rates are summarized below:

<u>Infiltration Test No.</u>	<u>Soil Description</u>	<u>Infiltration Rate (inches/hour)</u>
I-1	fine to medium Sandy Clay to Clayey fine to medium Sand	0.0
I-2	Clayey fine to coarse Sand	0.1
I-3	Clayey fine to coarse Sand, trace fine Gravel	0.3
I-4	Clayey fine to coarse Sand	0.1

Laboratory Testing

Grain Size Analysis

The grain size distribution of selected soils from the base of each infiltration test trench has been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented at the end of this report.

Design Recommendations

A total of four (4) infiltration tests were performed at the subject site. As noted above, the calculated infiltration rates at the infiltration locations range from 0.0 to 0.3 inches per hour. **Based on the very low rates from the infiltration test results, no significant infiltration should be expected for the storm water infiltration systems located at this site.**

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the city of Moreno Valley and/or Riverside county guidelines. **It is recommended that the project civil engineer apply an appropriate factor of safety.** It is recommended that the systems be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. **The infiltration rates recommended above are based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rates.** It should be noted that the recommended infiltration rates are based on infiltration testing at four (4) discrete locations and that the overall infiltration rate of the proposed detention basins could vary considerably.

Infiltration versus Permeability

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. The infiltration rates presented herein were determined in accordance with the ASTM Test Method D-3385-03 standard, and are considered valid for the time and place of the actual test. Changes in soil moisture content will affect these infiltration rates. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Structures and pavements adjacent to the infiltration areas could potentially be damaged due to saturation of subgrade soils.

If possible, all of the proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls. Even with this provision of locating the infiltration systems at least 25 feet from any structures, it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed structures (if any). It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure (if any), depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration systems.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rates contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between trench locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,
SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Matt Manni

Matt Manni
Staff Geologist

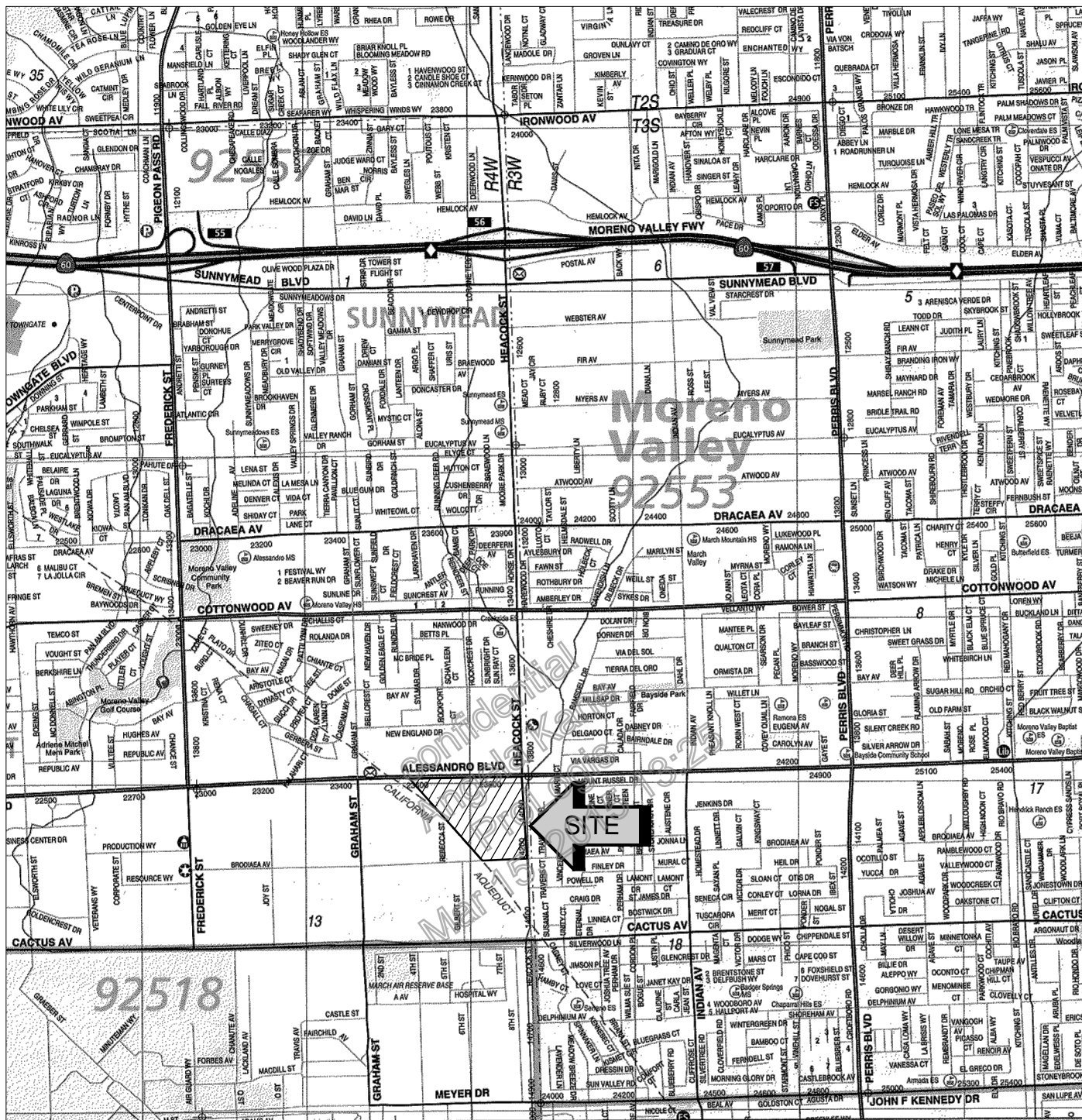
John A. Seminara

John A. Seminara, GE 2294
Principal Engineer




Distribution: (1) Addressee

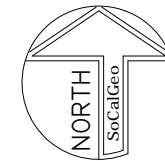
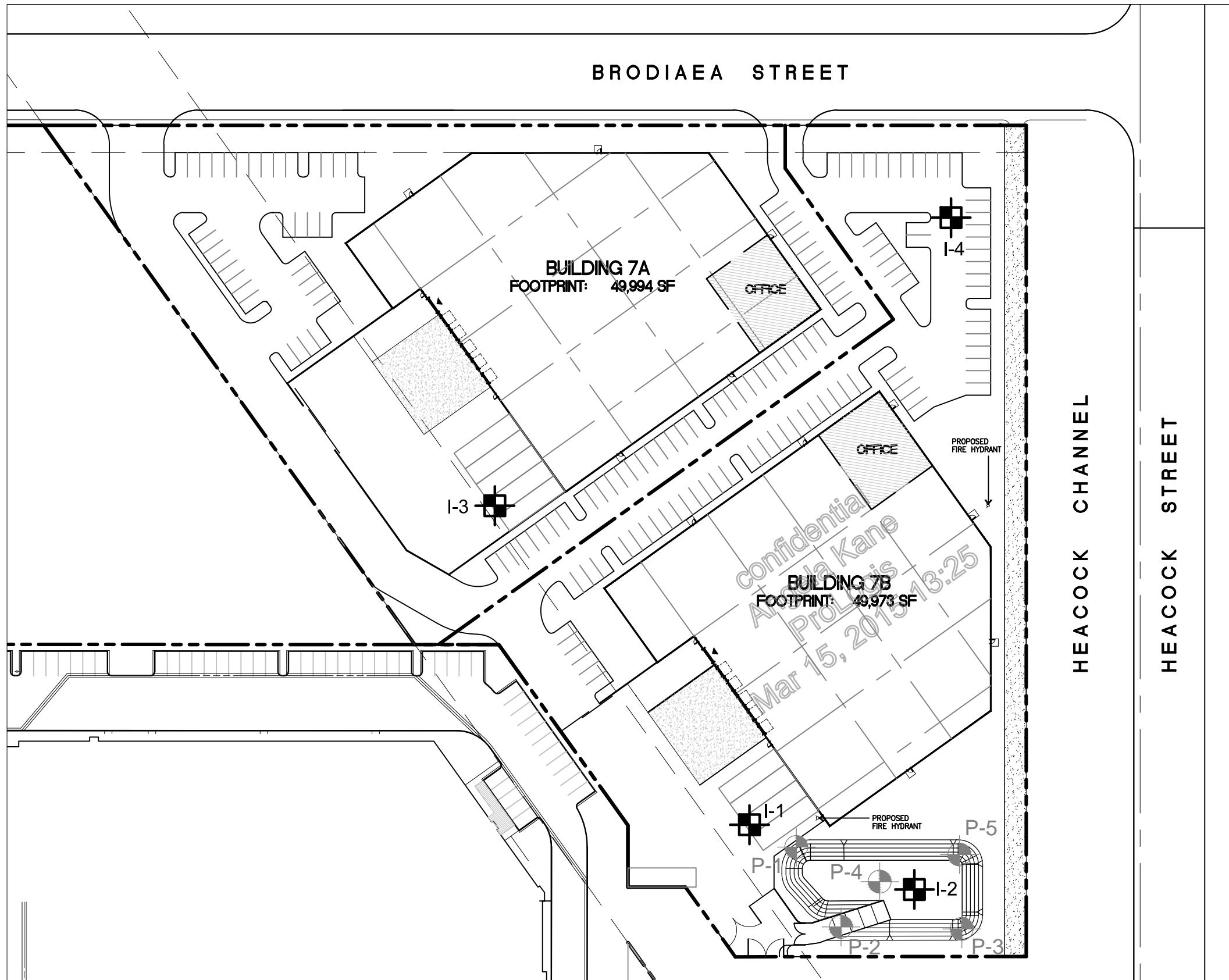
Enclosures: Plate 1 Site Location Map
Plate 2 Infiltration Test Location Plan
Trench Logs (4 pages)
Infiltration Test Results Spreadsheets (4 pages)
Grain Size Analysis Graphs (4 pages)





SOURCE: RIVERSIDE COUNTY
THOMAS GUIDE, 2013




SITE LOCATION MAP	
PROPOSED BUILDINGS 7A & 7B	
MORENO VALLEY, CALIFORNIA	
SCALE: 1" = 2400'	 SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: RF	
CHKD: JAS	
SCG PROJECT 15G102-2	
PLATE 1	



GEOTECHNICAL LEGEND

-  APPROXIMATE INFILTRATION TEST LOCATION
-  APPROXIMATE PERCOLATION TEST LOCATION FROM PREVIOUS STUDY (SCG PROJECT NO. 08G109-2)

NOTE: BASE MAP PREPARED BY HPA ARCHITECTURE INC.

INFILTRATION TEST LOCATION PLAN	
PROPOSED BUILDINGS 7A & 7B	
MORENO VALLEY, CALIFORNIA	
SCALE: 1" = 40'	 SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: MRM	
CHKD: JAS	
SCG PROJECT 15G102-2	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-1

JOB NO.: 15G102-2	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Proposed Buildings 7A & 7B	LOGGED BY: Matt Manni	SEEPAGE DEPTH: Dry
LOCATION: Moreno Valley, CA	ORIENTATION: S 50 E	READINGS TAKEN: At Completion
DATE: 1-15-2015		

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION	GRAPHIC REPRESENTATION	
					SCALE: 1" = 5'	
5				A: ALLUVIUM: Brown Silty fine Sand, trace medium to coarse Sand, trace fine root fibers, loose - dry		
			B: ALLUVIUM: Red Brown fine to medium Sandy Clay to Clayey fine to medium Sand, dense to very dense - dry			
				Trench Terminated @ 6 ½ feet		
10						
15						

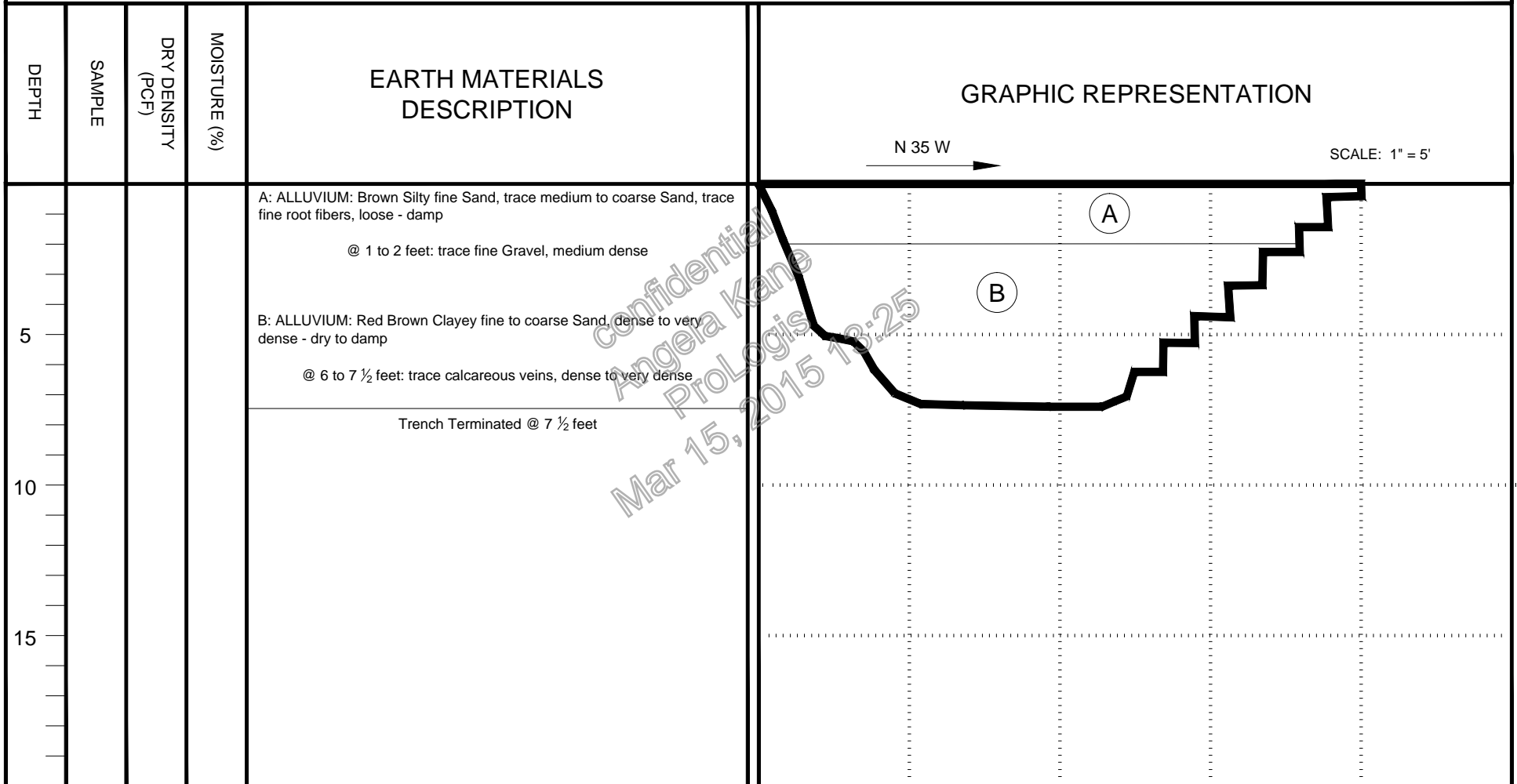
confidential
Angela Kane
Prologis
Mar 15, 2015 13:25

KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-2

JOB NO.: 15G102-2	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Proposed Buildings 7A & 7B	LOGGED BY: Matt Manni	SEEPAGE DEPTH: Dry
LOCATION: Moreno Valley, CA	ORIENTATION: N 35 W	READINGS TAKEN: At Completion
DATE: 1-15-2015		



KEY TO SAMPLE TYPES:
 B - BULK SAMPLE (DISTURBED)
 R - RING SAMPLE 2-1/2" DIAMETER
 (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-3

JOB NO.: 15G102-2	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Proposed Buildings 7A & 7B	LOGGED BY: Matt Manni	SEEPAGE DEPTH: Dry
LOCATION: Moreno Valley, CA	ORIENTATION: N 45 W	READINGS TAKEN: At Completion
DATE: 1-15-2015		

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION	GRAPHIC REPRESENTATION
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> </div>				<p>A: FILL: Brown Silty fine Sand, trace medium to coarse Sand, trace fine root fibers, loose to medium dense - damp</p> <p>B: ALLUVIUM: Red Brown fine to medium Sand, trace coarse Sand, little fine Gravel, trace fine root fibers, slightly porous, medium dense - dry to damp</p> <p>C: ALLUVIUM: Brown Silty fine Sand to fine Sandy Silt, trace medium to coarse Sand, slightly porous, medium dense - damp</p> <p>D: ALLUVIUM: Red Brown Clayey fine to coarse Sand, trace fine Gravel, dense to very dense - dry to damp</p> <p style="text-align: center;">Trench Terminated @ 7 ½ feet</p>	<div style="text-align: center;"> <p>N 45 W →</p> <p style="text-align: right;">SCALE: 1" = 5'</p> </div>

KEY TO SAMPLE TYPES:
 B - BULK SAMPLE (DISTURBED)
 R - RING SAMPLE 2-1/2" DIAMETER
 (RELATIVELY UNDISTURBED)

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-4

JOB NO.: 15G102-2

EQUIPMENT USED: Backhoe

WATER DEPTH: Dry

PROJECT: Proposed Buildings 7A & 7B

LOGGED BY: Matt Manni

SEEPAGE DEPTH: Dry

LOCATION: Moreno Valley, CA

ORIENTATION: N 10 W

READINGS TAKEN: At Completion

DATE: 1-15-2015

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION	GRAPHIC REPRESENTATION
<p>5</p> <p>10</p> <p>15</p>				<p>A: FILL: Brown Silty fine Sand, trace medium to coarse Sand, trace fine root fibers, loose - dry</p> <p>B: ALLUVIUM: Brown Silty fine Sand, trace medium Sand, trace fine to coarse Gravel, slightly porous, dense - damp</p> <p>C: ALLUVIUM: Light Brown Silty fine Sand, medium dense to dense - dry to damp</p> <p>D: OLDER ALLUVIUM: Red Brown Clayey fine to coarse Sand, dense - dry</p> <p>Trench Terminated @ 7 feet</p>	<p>N 10 W →</p> <p>SCALE: 1" = 5'</p>

KEY TO SAMPLE TYPES:
 B - BULK SAMPLE (DISTURBED)
 R - RING SAMPLE 2-1/2" DIAMETER
 (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-4

INFILTRATION CALCULATIONS

Project Name	Proposed Buildings 7A & 7B
Project Location	Moreno Valley, CA
Project Number	15G102-2
Engineer	Matt Manni

Infiltration Test No I-1

Constants			
	Diameter	Area	Area
	(ft)	(ft ²)	(cm ²)
Inner	1	0.79	729.6
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	11:00 AM	30	150	275	1100	1050	0.75	0.96	0.30	0.38
	Final	11:30 AM	30	425	2150						
2	Initial	11:31 AM	30	250	100	1100	650	0.27	0.59	0.11	0.23
	Final	12:01 PM	60	350	1750						
3	Initial	12:02 PM	30	150	75	1300	600	0.21	0.55	0.08	0.22
	Final	12:32 PM	90	225	1900						
4	Initial	12:33 PM	30	250	50	1000	400	0.14	0.37	0.05	0.14
	Final	1:03 PM	120	300	1400						

INFILTRATION CALCULATIONS

Project Name	Proposed Buildings 7A & 7B
Project Location	Moreno Valley, CA
Project Number	15G102-2
Engineer	Matt Manni

Infiltration Test No I-2

Constants			
	Diameter	Area	Area
	(ft)	(ft ²)	(cm ²)
Inner	1	0.79	729.6
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	11:15 AM	30	600	400	1400	3500	1.10	3.20	0.43	1.26
	Final	11:45 AM	30	1000	4900						
2	Initial	11:46 AM	30	150	150	2500	2300	0.41	2.10	0.16	0.83
	Final	12:16 PM	60	300		4800					
3	Initial	12:17 PM	30	200	100	2400	2400	0.27	2.19	0.11	0.86
	Final	12:47 PM	90	300		4800					
4	Initial	12:48 PM	30	150	100	2200	2400	0.27	2.19	0.11	0.86
	Final	1:18 PM	120	250		4600					

INFILTRATION CALCULATIONS

Project Name	Proposed Buildings 7A & 7B
Project Location	Moreno Valley, CA
Project Number	15G102-2
Engineer	Matt Manni

Infiltration Test No I-3

Constants			
	Diameter	Area	Area
	(ft)	(ft ²)	(cm ²)
Inner	1	0.79	729.6
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	2:30 PM	30	400	950	2600	3400	2.60	3.11	1.03	1.22
	Final	3:00 PM	30	1350	6000						
2	Initial	3:01 PM	30	250	600	2500	2500	1.64	2.28	0.65	0.90
	Final	3:31 PM	60	850	5000						
3	Initial	3:32 PM	30	200	400	2900	1900	1.10	1.74	0.43	0.68
	Final	4:02 PM	90	600	4800						
4	Initial	4:03 PM	30	150	300	2500	1500	0.82	1.37	0.32	0.54
	Final	4:33 PM	120	450	4000						

INFILTRATION CALCULATIONS

Project Name	Proposed Buildings 7A & 7B
Project Location	Moreno Valley, CA
Project Number	15G102-2
Engineer	Matt Manni

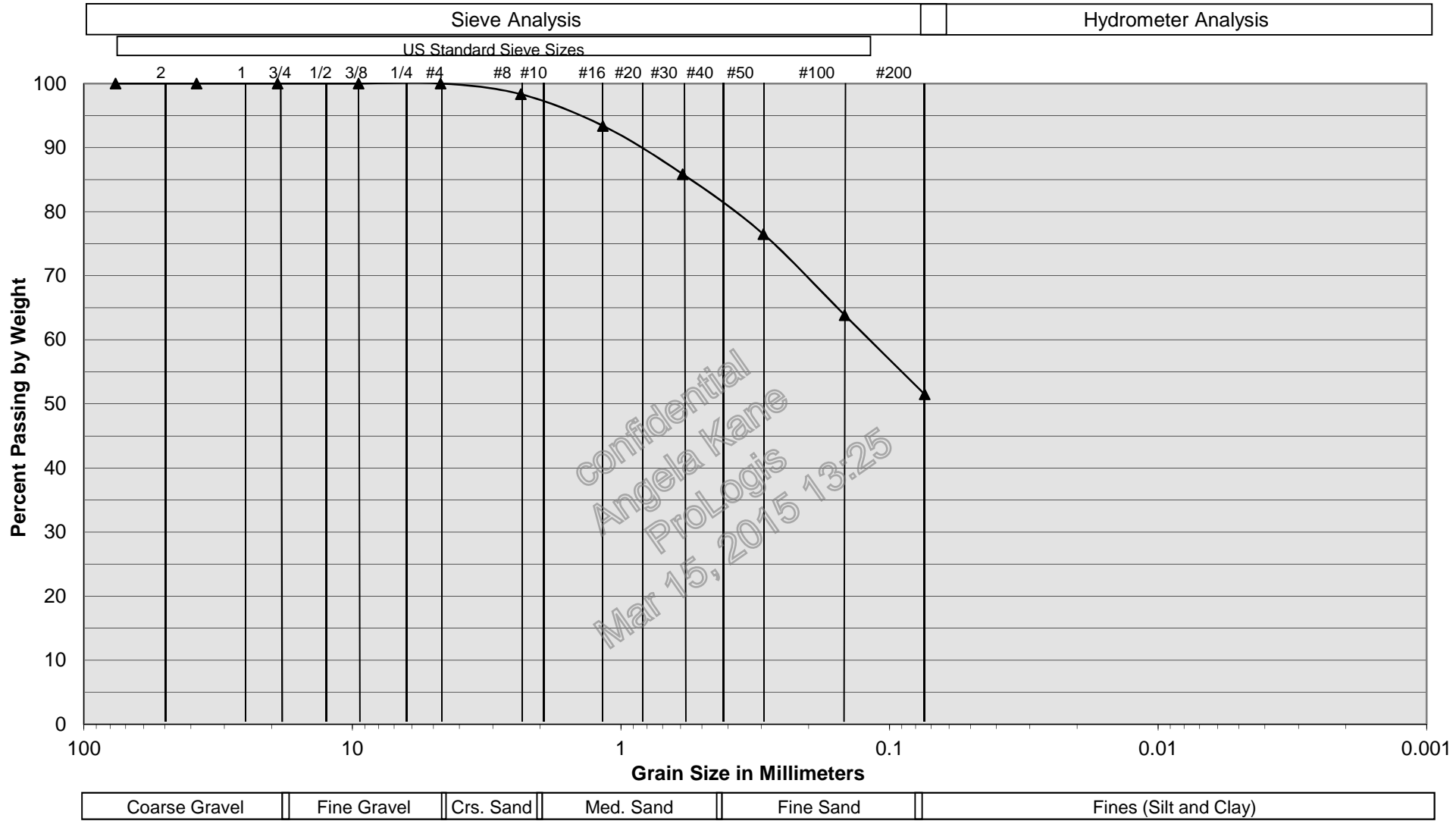
Infiltration Test No I-4

Constants			
	Diameter	Area	Area
	(ft)	(ft ²)	(cm ²)
Inner	1	0.79	729.6
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	2:45 PM	30	450	1200	1400	4800	3.29	4.39	1.30	1.73
	Final	3:15 PM	30	1650	6200						
2	Initial	3:16 PM	30	225	375	1400	2700	1.03	2.47	0.40	0.97
	Final	3:46 PM	60	600	4100						
3	Initial	3:47 PM	30	200	200	1600	1900	0.55	1.74	0.22	0.68
	Final	4:17 PM	90	400	3500						
4	Initial	4:18 PM	30	200	100	1200	1300	0.27	1.19	0.11	0.47
	Final	4:48 PM	120	300	2500						

Grain Size Distribution



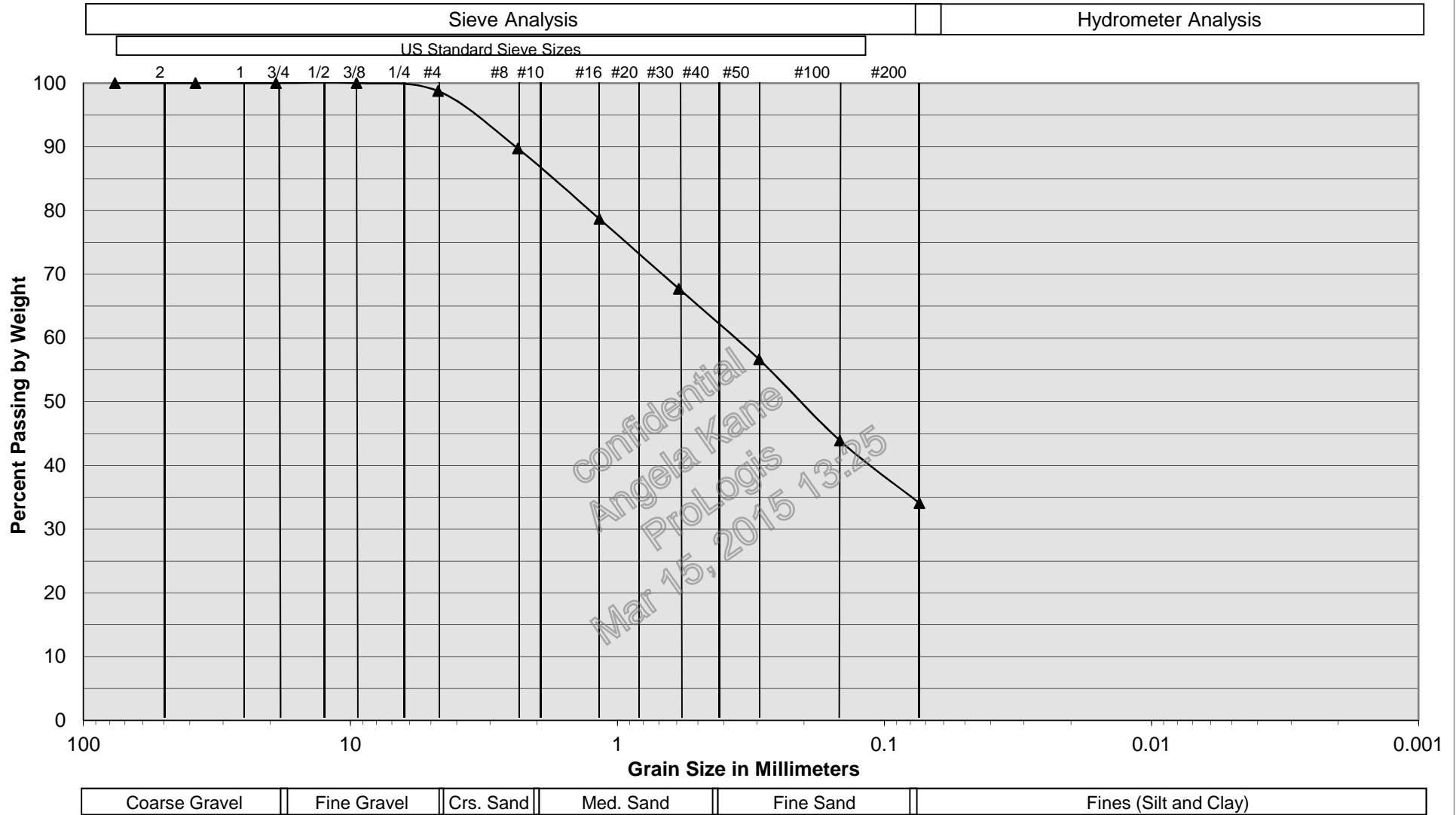
confidential
 Angela Kane
 ProLogis
 Mar 15, 2015 13:25

Sample Description	I-1 @ 6 1/2 feet
Soil Classification	Red Brown fine to medium Sandy Clay to Clayey fine to medium Sand

Proposed Buildings 7A & 7B
 Moreno Valley, California
 Project No. 15G102-2
PLATE C-1



Grain Size Distribution



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 Mar 15, 2015 13:25

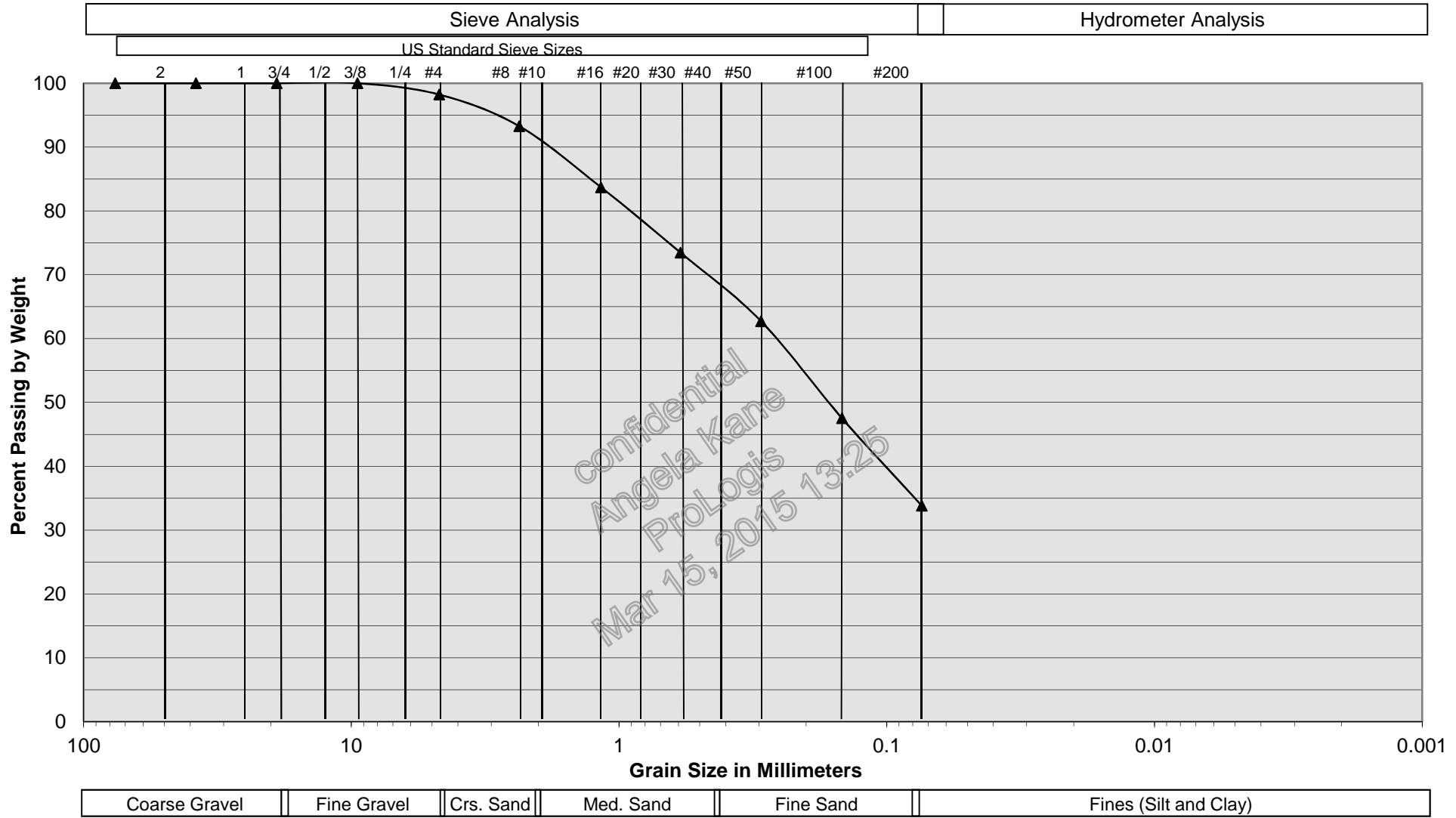
Sample Description	I-2 @ 7 1/2 feet
Soil Classification	Red Brown Clayey fine to coarse Sand

Proposed Buildings 7A & 7B
 Moreno Valley, California
 Project No. 15G102-2
PLATE C-2



Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance

Grain Size Distribution



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 Angela Kane
 ProLogis
 Mar 15, 2015 13:25

Sample Description	I-3 @ 7 1/2 feet
Soil Classification	Red Brown Clayey fine to coarse Sand, trace fine Gravel

Proposed Buildings 7A & 7B
 Moreno Valley, California
 Project No. 15G102-2
PLATE C-3

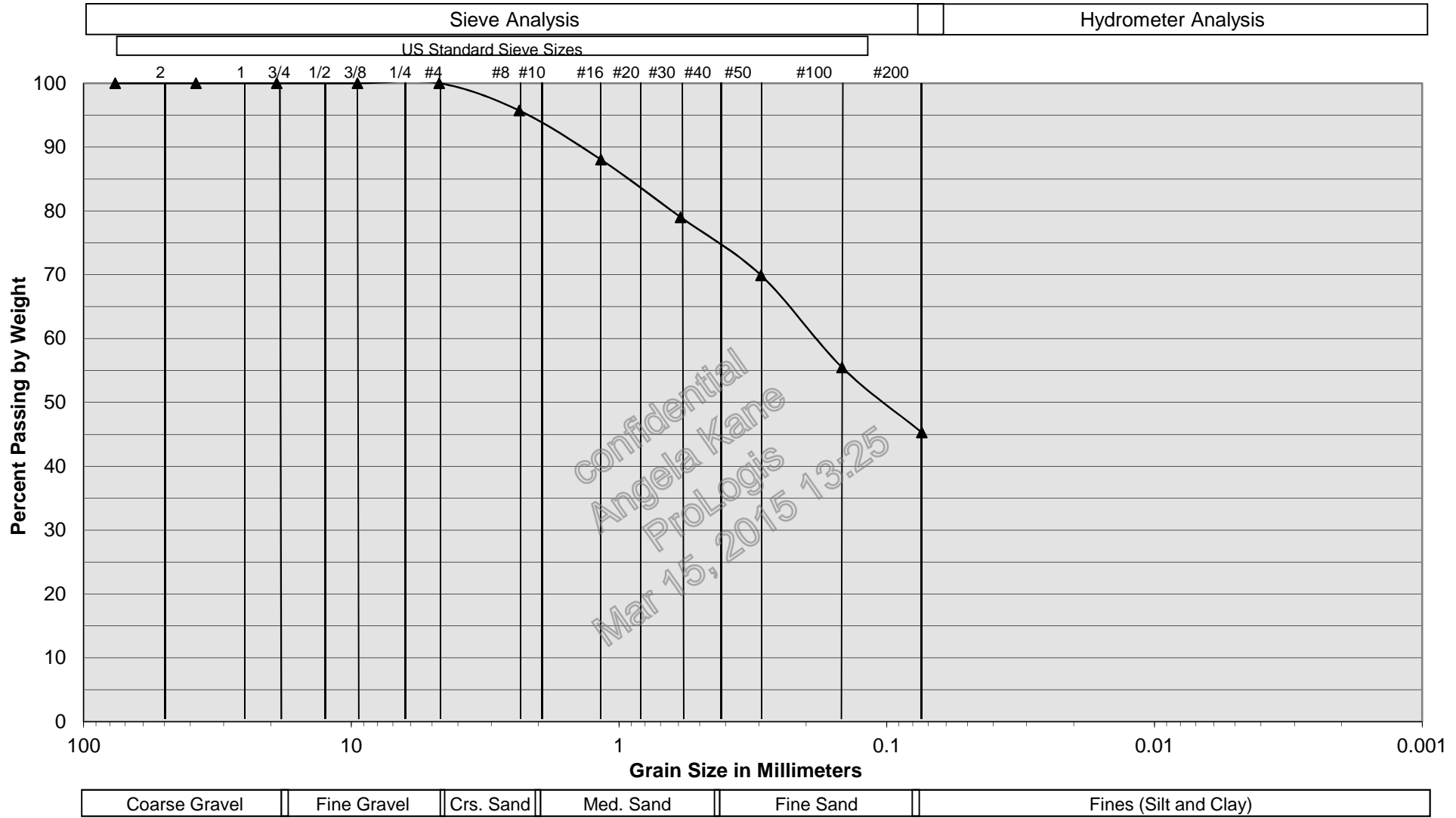


SOUTHERN CALIFORNIA GEOTECHNICAL
 A Calif. Company

Packet Pg. 573

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance

Grain Size Distribution



confidential
 Angela Kane
 ProLogis
 Mar 15, 2015 13:25

Sample Description	I-4 @ 7 feet
Soil Classification	Red Brown Clayey fine to coarse Sand

Proposed Buildings 7A & 7B
 Moreno Valley, California
 Project No. 15G102-2
PLATE C-4



Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Santa Ana Watershed - BMP Design Volume, V_{BMP}
 (Rev. 10-2011)

Legend: Required Entries
 Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Albert A. Webb Associates Date 9/12/2016
 Designed by MJS Case No
 Company Project Number/Name Brodiaea Business Center

BMP Identification

BMP NAME / ID Basin A
Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E $D_{85} =$ 0.65 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
L-A	69540	Ornamental Landscaping	0.1	0.11	7681.2			
R-A	100190	Roofs	1	0.89	89369.5			
H-A	122490	Concrete or Asphalt	1	0.89	109261.1			
292220		Total			206311.8	0.65	11175.2	11200

Notes:

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Bioretention Facility - Design Procedure		BMP ID	Legend:	Required Entries
Company Name:		Albert A Webb Associates		Date: 9/12/2016
Designed by:		MJS		County/City Case No.:
Design Volume				
Enter the area tributary to this feature			$A_T =$	6.71 acres
Enter V_{BMP} determined from Section 2.1 of this Handbook			$V_{BMP} =$	11,200 ft ³
Type of Bioretention Facility Design				
<input checked="" type="radio"/> Side slopes required (parallel to parking spaces or adjacent to walkways) <input type="radio"/> No side slopes required (perpendicular to parking space or Planter Boxes)				
Bioretention Facility Surface Area				
Depth of Soil Filter Media Layer			$d_S =$	2.0 ft
Top Width of Bioretention Facility, excluding curb			$w_T =$	34.0 ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$			$d_E =$	1.48 ft
Minimum Surface Area, A_M $A_M (ft^2) = \frac{V_{BMP} (ft^3)}{d_E (ft)}$			$A_M =$	7,571 ft ²
Proposed Surface Area			$A =$	10,020 ft ²
Bioretention Facility Properties				
Side Slopes in Bioretention Facility			$z =$	3 :1
ERROR, side slopes too steep for Bioretention Facility design				
Diameter of Underdrain				6 inches
Longitudinal Slope of Site (3% maximum)				0 %
6" Check Dam Spacing				0 feet
Describe Vegetation:				
Notes:				

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Basin Stage-Storage-Outflow Table
 16-0236
Bioretention Basin

Basin Information				2-Year 24-Hour Orifice	
Vbmp:	11,200	CF		Q 2-YR 24-HR	0.175
	0.257	AC-FT		Opening (IN)	2.2
Bottom Elevation:	1551	FT		Opening (FT)	0.183
Bottom Length:	415	FT		AREA (SF)	0.026
Bottom Width:	34-57	FT		# of Orifices	1
Bottom Area:	10,020	SF		Total Area (SF)	0.026
Bottom Slope:	0	%		G (FT/s^2)	32.2
Side Slope:	3	:1		Cd	0.66
				Invert H (FT)	1551.5
Point #	Elevation (FT)	Depth (FT)	Storage (AC-FT)	h (FT)	Q (CFS)
1.00	1,551.50	0.00	0.000	0.00	0.000
2.00	1,551.80	0.30	0.081	0.21	0.064
3.00	1,552.00	0.50	0.138	0.41	0.089
4.00	1,552.50	1.00	0.290	0.91	0.133
5.00	1,553.00	1.50	0.459	1.41	0.166
6.00	1,553.50	2.00	0.643	1.91	0.193
7.00	1,554.00	2.50	0.843	2.41	0.217

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

ROUTE242.out

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 09/20/16

16-0236 BRODIAEA BUSINESS CENTER
BASIN ROUTING CALCULATIONS
2-YEAR, 24-HOUR STORM EVENT
FN: ROUTE242.OUT CRC

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: BASINA242.rte
*****HYDROGRAPH DATA*****
Number of intervals = 324
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.034 (CFS)
Total volume = 0.687 (Ac.Ft)
status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

♀

++++++
Process from Point/Station 101.000 to Point/Station 102.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 324
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.300	0.081	0.064	0.081	0.081
0.500	0.138	0.089	0.138	0.138
1.000	0.290	0.133	0.290	0.290
1.500	0.459	0.166	0.458	0.460
2.000	0.643	0.193	0.642	0.644

2.500 0.843 0.217 ROUTE242.out 0.842 0.844

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.3	0.52	0.78	1.03	Depth (Ft.)
0.083	0.00	0.00	0.000	O					0.00
0.167	0.01	0.00	0.000	O					0.00
0.250	0.01	0.00	0.000	O					0.00
0.333	0.02	0.00	0.000	O					0.00
0.417	0.04	0.00	0.000	OI					0.00
0.500	0.05	0.00	0.001	OI					0.00
0.583	0.06	0.00	0.001	OI					0.00
0.667	0.06	0.00	0.001	O I					0.01
0.750	0.07	0.00	0.002	O I					0.01
0.833	0.08	0.00	0.002	O I					0.01
0.917	0.08	0.00	0.003	O I					0.01
1.000	0.09	0.00	0.003	O I					0.01
1.083	0.09	0.00	0.004	O I					0.02
1.167	0.10	0.00	0.005	O I					0.02
1.250	0.10	0.00	0.005	O I					0.02
1.333	0.10	0.00	0.006	O I					0.02
1.417	0.10	0.01	0.007	O I					0.02
1.500	0.10	0.01	0.007	O I					0.03
1.583	0.10	0.01	0.008	O I					0.03
1.667	0.10	0.01	0.009	O I					0.03
1.750	0.10	0.01	0.009	O I					0.03
1.833	0.10	0.01	0.010	O I					0.04
1.917	0.10	0.01	0.010	O I					0.04
2.000	0.10	0.01	0.011	O I					0.04
2.083	0.11	0.01	0.012	O I					0.04
2.167	0.11	0.01	0.012	O I					0.05
2.250	0.12	0.01	0.013	O I					0.05
2.333	0.12	0.01	0.014	O I					0.05
2.417	0.12	0.01	0.015	O I					0.05
2.500	0.12	0.01	0.015	O I					0.06
2.583	0.13	0.01	0.016	O I					0.06
2.667	0.13	0.01	0.017	O I					0.06
2.750	0.13	0.01	0.018	O I					0.07
2.833	0.14	0.01	0.019	O I					0.07
2.917	0.15	0.02	0.020	O I					0.07
3.000	0.15	0.02	0.020	O I					0.08
3.083	0.15	0.02	0.021	O I					0.08
3.167	0.15	0.02	0.022	O I					0.08
3.250	0.16	0.02	0.023	O I					0.09
3.333	0.16	0.02	0.024	O I					0.09
3.417	0.16	0.02	0.025	O I					0.09
3.500	0.16	0.02	0.026	O I					0.10
3.583	0.16	0.02	0.027	O I					0.10
3.667	0.16	0.02	0.028	O I					0.10
3.750	0.16	0.02	0.029	O I					0.11
3.833	0.16	0.02	0.030	O I					0.11
3.917	0.17	0.02	0.031	O I					0.11
4.000	0.17	0.03	0.032	O I					0.12
4.083	0.17	0.03	0.033	O I					0.12
4.167	0.18	0.03	0.034	O I					0.13
4.250	0.18	0.03	0.035	O I					0.13
4.333	0.19	0.03	0.036	O I					0.13
4.417	0.19	0.03	0.037	O I					0.14
4.500	0.20	0.03	0.038	O I					0.14

				ROUTE242.out							
4.583	0.20	0.03	0.039	O	I						0.15
4.667	0.21	0.03	0.041	O	I						0.15
4.750	0.21	0.03	0.042	O	I						0.16
4.833	0.22	0.03	0.043	O	I						0.16
4.917	0.22	0.04	0.044	O	I						0.16
5.000	0.23	0.04	0.046	O	I						0.17
5.083	0.23	0.04	0.047	O	I						0.17
5.167	0.23	0.04	0.048	O	I						0.18
5.250	0.23	0.04	0.050	O	I						0.18
5.333	0.23	0.04	0.051	O	I						0.19
5.417	0.22	0.04	0.052	O	I						0.19
5.500	0.22	0.04	0.053	O	I						0.20
5.583	0.22	0.04	0.055	O	I						0.20
5.667	0.23	0.04	0.056	O	I						0.21
5.750	0.23	0.05	0.057	O	I						0.21
5.833	0.24	0.05	0.059	O	I						0.22
5.917	0.24	0.05	0.060	O	I						0.22
6.000	0.25	0.05	0.061	O	I						0.23
6.083	0.25	0.05	0.063	O	I						0.23
6.167	0.26	0.05	0.064	O	I						0.24
6.250	0.26	0.05	0.065	O	I						0.24
6.333	0.27	0.05	0.067	O	I						0.25
6.417	0.27	0.05	0.068	O	I						0.25
6.500	0.28	0.06	0.070	O	I						0.26
6.583	0.28	0.06	0.072	O	I						0.26
6.667	0.29	0.06	0.073	O	I						0.27
6.750	0.29	0.06	0.075	O	I						0.28
6.833	0.30	0.06	0.076	O	I						0.28
6.917	0.31	0.06	0.078	O	I						0.29
7.000	0.31	0.06	0.080	O	I						0.30
7.083	0.31	0.06	0.081	O	I						0.30
7.167	0.32	0.06	0.083	O	I						0.31
7.250	0.32	0.07	0.085	O	I						0.31
7.333	0.32	0.07	0.087	O	I						0.32
7.417	0.32	0.07	0.088	O	I						0.33
7.500	0.33	0.07	0.090	O	I						0.33
7.583	0.34	0.07	0.092	O	I						0.34
7.667	0.34	0.07	0.094	O	I						0.35
7.750	0.35	0.07	0.096	O	I						0.35
7.833	0.36	0.07	0.098	O	I						0.36
7.917	0.37	0.07	0.100	O	I						0.37
8.000	0.38	0.07	0.102	O	I						0.37
8.083	0.39	0.07	0.104	O	I						0.38
8.167	0.40	0.08	0.106	O	I						0.39
8.250	0.42	0.08	0.109	O	I						0.40
8.333	0.43	0.08	0.111	O	I						0.40
8.417	0.44	0.08	0.113	O	I						0.41
8.500	0.45	0.08	0.116	O	I						0.42
8.583	0.46	0.08	0.119	O	I						0.43
8.667	0.47	0.08	0.121	O	I						0.44
8.750	0.48	0.08	0.124	O	I						0.45
8.833	0.49	0.08	0.127	O	I						0.46
8.917	0.50	0.09	0.129	O	I						0.47
9.000	0.51	0.09	0.132	O	I						0.48
9.083	0.52	0.09	0.135	O	I						0.49
9.167	0.53	0.09	0.138	O	I						0.50
9.250	0.54	0.09	0.141	O	I						0.51
9.333	0.56	0.09	0.144	O	I						0.52
9.417	0.58	0.09	0.148	O	I						0.53
9.500	0.59	0.09	0.151	O	I						0.54
9.583	0.60	0.09	0.155	O	I						0.55
9.667	0.62	0.09	0.158	O	I						0.57
9.750	0.63	0.10	0.162	O	I						0.58

				ROUTE242.out					
9.833	0.64	0.10	0.165	0		I			0.59
9.917	0.65	0.10	0.169	0		I			0.60
10.000	0.66	0.10	0.173	0		I			0.62
10.083	0.67	0.10	0.177	0		I			0.63
10.167	0.66	0.10	0.181	0		I			0.64
10.250	0.65	0.10	0.185	0		I			0.65
10.333	0.62	0.10	0.188	0		I			0.67
10.417	0.59	0.10	0.192	0		I			0.68
10.500	0.56	0.11	0.195	0		I			0.69
10.583	0.55	0.11	0.198	0		I			0.70
10.667	0.56	0.11	0.201	0		I			0.71
10.750	0.57	0.11	0.204	0		I			0.72
10.833	0.59	0.11	0.207	0		I			0.73
10.917	0.61	0.11	0.211	0		I			0.74
11.000	0.62	0.11	0.214	0		I			0.75
11.083	0.63	0.11	0.218	0		I			0.76
11.167	0.64	0.11	0.221	0		I			0.77
11.250	0.64	0.11	0.225	0		I			0.79
11.333	0.64	0.12	0.229	0		I			0.80
11.417	0.63	0.12	0.232	0		I			0.81
11.500	0.63	0.12	0.236	0		I			0.82
11.583	0.63	0.12	0.239	0		I			0.83
11.667	0.63	0.12	0.243	0		I			0.84
11.750	0.62	0.12	0.246	0		I			0.86
11.833	0.61	0.12	0.250	0		I			0.87
11.917	0.60	0.12	0.253	0		I			0.88
12.000	0.60	0.12	0.256	0		I			0.89
12.083	0.60	0.12	0.260	0		I			0.90
12.167	0.62	0.13	0.263	0		I			0.91
12.250	0.64	0.13	0.266	0		I			0.92
12.333	0.68	0.13	0.270	0		I			0.93
12.417	0.72	0.13	0.274	0		I			0.95
12.500	0.75	0.13	0.278	0		I			0.96
12.583	0.77	0.13	0.282	0		I			0.98
12.667	0.79	0.13	0.287	0		I			0.99
12.750	0.81	0.13	0.292	0		I			1.00
12.833	0.83	0.13	0.296	0		I			1.02
12.917	0.85	0.14	0.301	0		I			1.03
13.000	0.87	0.14	0.306	0		I			1.05
13.083	0.88	0.14	0.311	0		I			1.06
13.167	0.91	0.14	0.316	0		I			1.08
13.250	0.94	0.14	0.322	0		I			1.09
13.333	0.97	0.14	0.327	0		I			1.11
13.417	1.00	0.14	0.333	0		I			1.13
13.500	1.02	0.14	0.339	0		I			1.15
13.583	1.03	0.14	0.345	0		I			1.16
13.667	1.02	0.14	0.351	0		I			1.18
13.750	0.99	0.15	0.357	0		I			1.20
13.833	0.95	0.15	0.363	0		I			1.22
13.917	0.90	0.15	0.368	0		I			1.23
14.000	0.86	0.15	0.373	0		I			1.25
14.083	0.84	0.15	0.378	0		I			1.26
14.167	0.84	0.15	0.383	0		I			1.28
14.250	0.84	0.15	0.388	0		I			1.29
14.333	0.86	0.15	0.393	0		I			1.30
14.417	0.87	0.15	0.397	0		I			1.32
14.500	0.88	0.15	0.402	0		I			1.33
14.583	0.88	0.16	0.407	0		I			1.35
14.667	0.87	0.16	0.412	0		I			1.36
14.750	0.87	0.16	0.417	0		I			1.38
14.833	0.87	0.16	0.422	0		I			1.39
14.917	0.87	0.16	0.427	0		I			1.41
15.000	0.86	0.16	0.432	0		I			1.42

				ROUTE242.out					
15.083	0.86	0.16	0.437	O				I	1.43
15.167	0.85	0.16	0.442	O				I	1.45
15.250	0.84	0.16	0.446	O				I	1.46
15.333	0.84	0.16	0.451	O				I	1.48
15.417	0.83	0.17	0.455	O				I	1.49
15.500	0.82	0.17	0.460	O				I	1.50
15.583	0.81	0.17	0.464	O				I	1.51
15.667	0.79	0.17	0.469	O				I	1.53
15.750	0.77	0.17	0.473	O				I	1.54
15.833	0.74	0.17	0.477	O				I	1.55
15.917	0.72	0.17	0.481	O				I	1.56
16.000	0.70	0.17	0.485	O				I	1.57
16.083	0.68	0.17	0.488	O				I	1.58
16.167	0.64	0.17	0.492	O				I	1.59
16.250	0.58	0.17	0.495	O				I	1.60
16.333	0.50	0.17	0.497	O				I	1.60
16.417	0.42	0.17	0.499	O				I	1.61
16.500	0.36	0.17	0.501	O				I	1.61
16.583	0.32	0.17	0.502	O				I	1.62
16.667	0.29	0.17	0.503	O				I	1.62
16.750	0.27	0.17	0.503	O				I	1.62
16.833	0.24	0.17	0.504	O				I	1.62
16.917	0.22	0.17	0.504	O				I	1.62
17.000	0.21	0.17	0.505	O				I	1.62
17.083	0.20	0.17	0.505	O				I	1.62
17.167	0.19	0.17	0.505	O				I	1.63
17.250	0.19	0.17	0.505	O				I	1.63
17.333	0.19	0.17	0.505	O				I	1.63
17.417	0.19	0.17	0.505	O				I	1.63
17.500	0.19	0.17	0.505	O				I	1.63
17.583	0.19	0.17	0.506	O				I	1.63
17.667	0.19	0.17	0.506	O				I	1.63
17.750	0.19	0.17	0.506	O				I	1.63
17.833	0.18	0.17	0.506	O				I	1.63
17.917	0.18	0.17	0.506	O				I	1.63
18.000	0.17	0.17	0.506	O				I	1.63
18.083	0.17	0.17	0.506	O				I	1.63
18.167	0.16	0.17	0.506	O				I	1.63
18.250	0.15	0.17	0.506	O				I	1.63
18.333	0.15	0.17	0.506	O				I	1.63
18.417	0.15	0.17	0.505	O				I	1.63
18.500	0.14	0.17	0.505	O				I	1.63
18.583	0.14	0.17	0.505	O				I	1.63
18.667	0.14	0.17	0.505	O				I	1.62
18.750	0.13	0.17	0.505	O				I	1.62
18.833	0.13	0.17	0.504	O				I	1.62
18.917	0.12	0.17	0.504	O				I	1.62
19.000	0.11	0.17	0.503	O				I	1.62
19.083	0.10	0.17	0.503	O				I	1.62
19.167	0.10	0.17	0.503	O				I	1.62
19.250	0.10	0.17	0.502	O				I	1.62
19.333	0.10	0.17	0.501	O				I	1.62
19.417	0.10	0.17	0.501	O				I	1.61
19.500	0.11	0.17	0.501	O				I	1.61
19.583	0.11	0.17	0.500	O				I	1.61
19.667	0.12	0.17	0.500	O				I	1.61
19.750	0.12	0.17	0.499	O				I	1.61
19.833	0.11	0.17	0.499	O				I	1.61
19.917	0.11	0.17	0.498	O				I	1.61
20.000	0.10	0.17	0.498	O				I	1.61
20.083	0.09	0.17	0.497	O				I	1.60
20.167	0.09	0.17	0.497	O				I	1.60
20.250	0.09	0.17	0.496	O				I	1.60

				ROUTE242.out					
20.333	0.09	0.17	0.496	I	O				1.60
20.417	0.09	0.17	0.495	I	O				1.60
20.500	0.10	0.17	0.495	I	O				1.60
20.583	0.10	0.17	0.494	I	O				1.60
20.667	0.10	0.17	0.494	I	O				1.59
20.750	0.10	0.17	0.493	I	O				1.59
20.833	0.10	0.17	0.493	I	O				1.59
20.917	0.10	0.17	0.492	I	O				1.59
21.000	0.09	0.17	0.492	I	O				1.59
21.083	0.09	0.17	0.491	I	O				1.59
21.167	0.09	0.17	0.491	I	O				1.59
21.250	0.09	0.17	0.490	I	O				1.58
21.333	0.09	0.17	0.489	I	O				1.58
21.417	0.09	0.17	0.489	I	O				1.58
21.500	0.09	0.17	0.488	I	O				1.58
21.583	0.08	0.17	0.488	I	O				1.58
21.667	0.08	0.17	0.487	I	O				1.58
21.750	0.08	0.17	0.486	I	O				1.57
21.833	0.09	0.17	0.486	I	O				1.57
21.917	0.09	0.17	0.485	I	O				1.57
22.000	0.09	0.17	0.485	I	O				1.57
22.083	0.08	0.17	0.484	I	O				1.57
22.167	0.08	0.17	0.484	I	O				1.57
22.250	0.08	0.17	0.483	I	O				1.57
22.333	0.08	0.17	0.482	I	O				1.56
22.417	0.09	0.17	0.482	I	O				1.56
22.500	0.09	0.17	0.481	I	O				1.56
22.583	0.08	0.17	0.481	I	O				1.56
22.667	0.08	0.17	0.480	I	O				1.56
22.750	0.08	0.17	0.479	I	O				1.56
22.833	0.07	0.17	0.479	I	O				1.55
22.917	0.07	0.17	0.478	I	O				1.55
23.000	0.07	0.17	0.477	I	O				1.55
23.083	0.07	0.17	0.477	I	O				1.55
23.167	0.07	0.17	0.476	I	O				1.55
23.250	0.07	0.17	0.475	I	O				1.54
23.333	0.07	0.17	0.475	I	O				1.54
23.417	0.07	0.17	0.474	I	O				1.54
23.500	0.07	0.17	0.473	I	O				1.54
23.583	0.07	0.17	0.473	I	O				1.54
23.667	0.07	0.17	0.472	I	O				1.54
23.750	0.07	0.17	0.471	I	O				1.53
23.833	0.07	0.17	0.471	I	O				1.53
23.917	0.07	0.17	0.470	I	O				1.53
24.000	0.07	0.17	0.469	I	O				1.53
24.083	0.07	0.17	0.469	I	O				1.53
24.167	0.06	0.17	0.468	I	O				1.52
24.250	0.05	0.17	0.467	I	O				1.52
24.333	0.04	0.17	0.466	I	O				1.52
24.417	0.03	0.17	0.465	I	O				1.52
24.500	0.03	0.17	0.464	I	O				1.51
24.583	0.02	0.17	0.463	I	O				1.51
24.667	0.02	0.17	0.462	I	O				1.51
24.750	0.02	0.17	0.461	I	O				1.51
24.833	0.01	0.17	0.460	I	O				1.50
24.917	0.01	0.17	0.459	I	O				1.50
25.000	0.01	0.17	0.458	I	O				1.50
25.083	0.01	0.17	0.457	I	O				1.49
25.167	0.01	0.17	0.456	I	O				1.49
25.250	0.01	0.17	0.455	I	O				1.49
25.333	0.01	0.17	0.454	I	O				1.49
25.417	0.01	0.16	0.453	I	O				1.48
25.500	0.01	0.16	0.452	I	O				1.48

ROUTE242.out						
25.583	0.00	0.16	0.451	I	0	1.48
25.667	0.00	0.16	0.450	I	0	1.47
25.750	0.00	0.16	0.448	I	0	1.47
25.833	0.00	0.16	0.447	I	0	1.47
25.917	0.00	0.16	0.446	I	0	1.46
26.000	0.00	0.16	0.445	I	0	1.46
26.083	0.00	0.16	0.444	I	0	1.46
26.167	0.00	0.16	0.443	I	0	1.45
26.250	0.00	0.16	0.442	I	0	1.45
26.333	0.00	0.16	0.441	I	0	1.45
26.417	0.00	0.16	0.440	I	0	1.44
26.500	0.00	0.16	0.438	I	0	1.44
26.583	0.00	0.16	0.437	I	0	1.44
26.667	0.00	0.16	0.436	I	0	1.43
26.750	0.00	0.16	0.435	I	0	1.43
26.833	0.00	0.16	0.434	I	0	1.43
26.917	0.00	0.16	0.433	I	0	1.42
27.000	0.00	0.16	0.432	I	0	1.42
27.083	0.00	0.16	0.431	I	0	1.42
27.167	0.00	0.16	0.430	I	0	1.41
27.250	0.00	0.16	0.429	I	0	1.41
27.333	0.00	0.16	0.427	I	0	1.41
27.417	0.00	0.16	0.426	I	0	1.40
27.500	0.00	0.16	0.425	I	0	1.40
27.583	0.00	0.16	0.424	I	0	1.40
27.667	0.00	0.16	0.423	I	0	1.39
27.750	0.00	0.16	0.422	I	0	1.39
27.833	0.00	0.16	0.421	I	0	1.39
27.917	0.00	0.16	0.420	I	0	1.38
28.000	0.00	0.16	0.419	I	0	1.38
28.083	0.00	0.16	0.418	I	0	1.38
28.167	0.00	0.16	0.416	I	0	1.37
28.250	0.00	0.16	0.415	I	0	1.37
28.333	0.00	0.16	0.414	I	0	1.37
28.417	0.00	0.16	0.413	I	0	1.36
28.500	0.00	0.16	0.412	I	0	1.36
28.583	0.00	0.16	0.411	I	0	1.36
28.667	0.00	0.16	0.410	I	0	1.36
28.750	0.00	0.16	0.409	I	0	1.35
28.833	0.00	0.16	0.408	I	0	1.35
28.917	0.00	0.16	0.407	I	0	1.35
29.000	0.00	0.16	0.406	I	0	1.34
29.083	0.00	0.16	0.405	I	0	1.34
29.167	0.00	0.16	0.404	I	0	1.34
29.250	0.00	0.15	0.402	I	0	1.33
29.333	0.00	0.15	0.401	I	0	1.33
29.417	0.00	0.15	0.400	I	0	1.33
29.500	0.00	0.15	0.399	I	0	1.32
29.583	0.00	0.15	0.398	I	0	1.32
29.667	0.00	0.15	0.397	I	0	1.32
29.750	0.00	0.15	0.396	I	0	1.31
29.833	0.00	0.15	0.395	I	0	1.31
29.917	0.00	0.15	0.394	I	0	1.31
30.000	0.00	0.15	0.393	I	0	1.30
30.083	0.00	0.15	0.392	I	0	1.30
30.167	0.00	0.15	0.391	I	0	1.30
30.250	0.00	0.15	0.390	I	0	1.30
30.333	0.00	0.15	0.389	I	0	1.29
30.417	0.00	0.15	0.388	I	0	1.29
30.500	0.00	0.15	0.387	I	0	1.29
30.583	0.00	0.15	0.386	I	0	1.28
30.667	0.00	0.15	0.385	I	0	1.28
30.750	0.00	0.15	0.384	I	0	1.28

ROUTE242.out						
30.833	0.00	0.15	0.382	I	0	1.27
30.917	0.00	0.15	0.381	I	0	1.27
31.000	0.00	0.15	0.380	I	0	1.27
31.083	0.00	0.15	0.379	I	0	1.26
31.167	0.00	0.15	0.378	I	0	1.26
31.250	0.00	0.15	0.377	I	0	1.26
31.333	0.00	0.15	0.376	I	0	1.26
31.417	0.00	0.15	0.375	I	0	1.25
31.500	0.00	0.15	0.374	I	0	1.25
31.583	0.00	0.15	0.373	I	0	1.25
31.667	0.00	0.15	0.372	I	0	1.24
31.750	0.00	0.15	0.371	I	0	1.24
31.833	0.00	0.15	0.370	I	0	1.24
31.917	0.00	0.15	0.369	I	0	1.23
32.000	0.00	0.15	0.368	I	0	1.23
32.083	0.00	0.15	0.367	I	0	1.23
32.167	0.00	0.15	0.366	I	0	1.22
32.250	0.00	0.15	0.365	I	0	1.22
32.333	0.00	0.15	0.364	I	0	1.22
32.417	0.00	0.15	0.363	I	0	1.22
32.500	0.00	0.15	0.362	I	0	1.21
32.583	0.00	0.15	0.361	I	0	1.21
32.667	0.00	0.15	0.360	I	0	1.21
32.750	0.00	0.15	0.359	I	0	1.20
32.833	0.00	0.15	0.358	I	0	1.20
32.917	0.00	0.15	0.357	I	0	1.20
33.000	0.00	0.15	0.356	I	0	1.19
33.083	0.00	0.15	0.355	I	0	1.19
33.167	0.00	0.15	0.354	I	0	1.19
33.250	0.00	0.15	0.353	I	0	1.19
33.333	0.00	0.15	0.352	I	0	1.18
33.417	0.00	0.14	0.351	I	0	1.18
33.500	0.00	0.14	0.350	I	0	1.18
33.583	0.00	0.14	0.349	I	0	1.17
33.667	0.00	0.14	0.348	I	0	1.17
33.750	0.00	0.14	0.347	I	0	1.17
33.833	0.00	0.14	0.346	I	0	1.17
33.917	0.00	0.14	0.345	I	0	1.16
34.000	0.00	0.14	0.344	I	0	1.16
34.083	0.00	0.14	0.343	I	0	1.16
34.167	0.00	0.14	0.342	I	0	1.15
34.250	0.00	0.14	0.341	I	0	1.15
34.333	0.00	0.14	0.340	I	0	1.15
34.417	0.00	0.14	0.339	I	0	1.14
34.500	0.00	0.14	0.338	I	0	1.14
34.583	0.00	0.14	0.337	I	0	1.14
34.667	0.00	0.14	0.336	I	0	1.14
34.750	0.00	0.14	0.335	I	0	1.13
34.833	0.00	0.14	0.334	I	0	1.13
34.917	0.00	0.14	0.333	I	0	1.13
35.000	0.00	0.14	0.332	I	0	1.12
35.083	0.00	0.14	0.331	I	0	1.12
35.167	0.00	0.14	0.330	I	0	1.12
35.250	0.00	0.14	0.329	I	0	1.12
35.333	0.00	0.14	0.328	I	0	1.11
35.417	0.00	0.14	0.327	I	0	1.11
35.500	0.00	0.14	0.326	I	0	1.11
35.583	0.00	0.14	0.325	I	0	1.10
35.667	0.00	0.14	0.324	I	0	1.10
35.750	0.00	0.14	0.323	I	0	1.10
35.833	0.00	0.14	0.322	I	0	1.10
35.917	0.00	0.14	0.322	I	0	1.09
36.000	0.00	0.14	0.321	I	0	1.09

ROUTE242.out						
36.083	0.00	0.14	0.320	I	0	1.09
36.167	0.00	0.14	0.319	I	0	1.08
36.250	0.00	0.14	0.318	I	0	1.08
36.333	0.00	0.14	0.317	I	0	1.08
36.417	0.00	0.14	0.316	I	0	1.08
36.500	0.00	0.14	0.315	I	0	1.07
36.583	0.00	0.14	0.314	I	0	1.07
36.667	0.00	0.14	0.313	I	0	1.07
36.750	0.00	0.14	0.312	I	0	1.07
36.833	0.00	0.14	0.311	I	0	1.06
36.917	0.00	0.14	0.310	I	0	1.06
37.000	0.00	0.14	0.309	I	0	1.06
37.083	0.00	0.14	0.308	I	0	1.05
37.167	0.00	0.14	0.307	I	0	1.05
37.250	0.00	0.14	0.306	I	0	1.05
37.333	0.00	0.14	0.305	I	0	1.05
37.417	0.00	0.14	0.304	I	0	1.04
37.500	0.00	0.14	0.304	I	0	1.04
37.583	0.00	0.14	0.303	I	0	1.04
37.667	0.00	0.14	0.302	I	0	1.03
37.750	0.00	0.14	0.301	I	0	1.03
37.833	0.00	0.13	0.300	I	0	1.03
37.917	0.00	0.13	0.299	I	0	1.03
38.000	0.00	0.13	0.298	I	0	1.02
38.083	0.00	0.13	0.297	I	0	1.02
38.167	0.00	0.13	0.296	I	0	1.02
38.250	0.00	0.13	0.295	I	0	1.02
38.333	0.00	0.13	0.294	I	0	1.01
38.417	0.00	0.13	0.293	I	0	1.01
38.500	0.00	0.13	0.292	I	0	1.01
38.583	0.00	0.13	0.292	I	0	1.00
38.667	0.00	0.13	0.291	I	0	1.00
38.750	0.00	0.13	0.290	I	0	1.00
38.833	0.00	0.13	0.289	I	0	1.00
38.917	0.00	0.13	0.288	I	0	0.99
39.000	0.00	0.13	0.287	I	0	0.99
39.083	0.00	0.13	0.286	I	0	0.99
39.167	0.00	0.13	0.285	I	0	0.98
39.250	0.00	0.13	0.284	I	0	0.98
39.333	0.00	0.13	0.283	I	0	0.98
39.417	0.00	0.13	0.282	I	0	0.98
39.500	0.00	0.13	0.282	I	0	0.97
39.583	0.00	0.13	0.281	I	0	0.97
39.667	0.00	0.13	0.280	I	0	0.97
39.750	0.00	0.13	0.279	I	0	0.96
39.833	0.00	0.13	0.278	I	0	0.96
39.917	0.00	0.13	0.277	I	0	0.96
40.000	0.00	0.13	0.276	I	0	0.95
40.083	0.00	0.13	0.275	I	0	0.95
40.167	0.00	0.13	0.274	I	0	0.95
40.250	0.00	0.13	0.274	I	0	0.95
40.333	0.00	0.13	0.273	I	0	0.94
40.417	0.00	0.13	0.272	I	0	0.94
40.500	0.00	0.13	0.271	I	0	0.94
40.583	0.00	0.13	0.270	I	0	0.93
40.667	0.00	0.13	0.269	I	0	0.93
40.750	0.00	0.13	0.268	I	0	0.93
40.833	0.00	0.13	0.267	I	0	0.93
40.917	0.00	0.13	0.266	I	0	0.92
41.000	0.00	0.13	0.266	I	0	0.92
41.083	0.00	0.13	0.265	I	0	0.92
41.167	0.00	0.13	0.264	I	0	0.91
41.250	0.00	0.13	0.263	I	0	0.91

				ROUTE242.out			
41.333	0.00	0.12	0.262	I	0		0.91
41.417	0.00	0.12	0.261	I	0		0.91
41.500	0.00	0.12	0.260	I	0		0.90
41.583	0.00	0.12	0.260	I	0		0.90
41.667	0.00	0.12	0.259	I	0		0.90
41.750	0.00	0.12	0.258	I	0		0.89
41.833	0.00	0.12	0.257	I	0		0.89
41.917	0.00	0.12	0.256	I	0		0.89
42.000	0.00	0.12	0.255	I	0		0.89
42.083	0.00	0.12	0.254	I	0		0.88
42.167	0.00	0.12	0.254	I	0		0.88
42.250	0.00	0.12	0.253	I	0		0.88
42.333	0.00	0.12	0.252	I	0		0.87
42.417	0.00	0.12	0.251	I	0		0.87
42.500	0.00	0.12	0.250	I	0		0.87
42.583	0.00	0.12	0.249	I	0		0.87
42.667	0.00	0.12	0.249	I	0		0.86
42.750	0.00	0.12	0.248	I	0		0.86
42.833	0.00	0.12	0.247	I	0		0.86
42.917	0.00	0.12	0.246	I	0		0.86
43.000	0.00	0.12	0.245	I	0		0.85
43.083	0.00	0.12	0.244	I	0		0.85
43.167	0.00	0.12	0.244	I	0		0.85
43.250	0.00	0.12	0.243	I	0		0.84
43.333	0.00	0.12	0.242	I	0		0.84
43.417	0.00	0.12	0.241	I	0		0.84
43.500	0.00	0.12	0.240	I	0		0.84
43.583	0.00	0.12	0.240	I	0		0.83
43.667	0.00	0.12	0.239	I	0		0.83
43.750	0.00	0.12	0.238	I	0		0.83
43.833	0.00	0.12	0.237	I	0		0.83
43.917	0.00	0.12	0.236	I	0		0.82
44.000	0.00	0.12	0.235	I	0		0.82
44.083	0.00	0.12	0.235	I	0		0.82
44.167	0.00	0.12	0.234	I	0		0.82
44.250	0.00	0.12	0.233	I	0		0.81
44.333	0.00	0.12	0.232	I	0		0.81
44.417	0.00	0.12	0.231	I	0		0.81
44.500	0.00	0.12	0.231	I	0		0.80
44.583	0.00	0.12	0.230	I	0		0.80
44.667	0.00	0.12	0.229	I	0		0.80
44.750	0.00	0.12	0.228	I	0		0.80
44.833	0.00	0.11	0.228	I	0		0.79
44.917	0.00	0.11	0.227	I	0		0.79
45.000	0.00	0.11	0.226	I	0		0.79
45.083	0.00	0.11	0.225	I	0		0.79
45.167	0.00	0.11	0.224	I	0		0.78
45.250	0.00	0.11	0.224	I	0		0.78
45.333	0.00	0.11	0.223	I	0		0.78
45.417	0.00	0.11	0.222	I	0		0.78
45.500	0.00	0.11	0.221	I	0		0.77
45.583	0.00	0.11	0.220	I	0		0.77
45.667	0.00	0.11	0.220	I	0		0.77
45.750	0.00	0.11	0.219	I	0		0.77
45.833	0.00	0.11	0.218	I	0		0.76
45.917	0.00	0.11	0.217	I	0		0.76
46.000	0.00	0.11	0.217	I	0		0.76
46.083	0.00	0.11	0.216	I	0		0.76
46.167	0.00	0.11	0.215	I	0		0.75
46.250	0.00	0.11	0.214	I	0		0.75
46.333	0.00	0.11	0.214	I	0		0.75
46.417	0.00	0.11	0.213	I	0		0.75
46.500	0.00	0.11	0.212	I	0		0.74

				ROUTE242.out			
46.583	0.00	0.11	0.211	I	O		0.74
46.667	0.00	0.11	0.210	I	O		0.74
46.750	0.00	0.11	0.210	I	O		0.74
46.833	0.00	0.11	0.209	I	O		0.73
46.917	0.00	0.11	0.208	I	O		0.73
47.000	0.00	0.11	0.207	I	O		0.73
47.083	0.00	0.11	0.207	I	O		0.73
47.167	0.00	0.11	0.206	I	O		0.72
47.250	0.00	0.11	0.205	I	O		0.72
47.333	0.00	0.11	0.204	I	O		0.72
47.417	0.00	0.11	0.204	I	O		0.72
47.500	0.00	0.11	0.203	I	O		0.71
47.583	0.00	0.11	0.202	I	O		0.71
47.667	0.00	0.11	0.201	I	O		0.71
47.750	0.00	0.11	0.201	I	O		0.71
47.833	0.00	0.11	0.200	I	O		0.70
47.917	0.00	0.11	0.199	I	O		0.70
48.000	0.00	0.11	0.199	I	O		0.70
48.083	0.00	0.11	0.198	I	O		0.70
48.167	0.00	0.11	0.197	I	O		0.69
48.250	0.00	0.11	0.196	I	O		0.69
48.333	0.00	0.11	0.196	I	O		0.69
48.417	0.00	0.11	0.195	I	O		0.69
48.500	0.00	0.11	0.194	I	O		0.68
48.583	0.00	0.11	0.193	I	O		0.68
48.667	0.00	0.10	0.193	I	O		0.68
48.750	0.00	0.10	0.192	I	O		0.68
48.833	0.00	0.10	0.191	I	O		0.68
48.917	0.00	0.10	0.191	I	O		0.67
49.000	0.00	0.10	0.190	I	O		0.67
49.083	0.00	0.10	0.189	I	O		0.67
49.167	0.00	0.10	0.188	I	O		0.67
49.250	0.00	0.10	0.188	I	O		0.66
49.333	0.00	0.10	0.187	I	O		0.66
49.417	0.00	0.10	0.186	I	O		0.66
49.500	0.00	0.10	0.186	I	O		0.66
49.583	0.00	0.10	0.185	I	O		0.65
49.667	0.00	0.10	0.184	I	O		0.65
49.750	0.00	0.10	0.183	I	O		0.65
49.833	0.00	0.10	0.183	I	O		0.65
49.917	0.00	0.10	0.182	I	O		0.64
50.000	0.00	0.10	0.181	I	O		0.64
50.083	0.00	0.10	0.181	I	O		0.64
50.167	0.00	0.10	0.180	I	O		0.64
50.250	0.00	0.10	0.179	I	O		0.64
50.333	0.00	0.10	0.179	I	O		0.63
50.417	0.00	0.10	0.178	I	O		0.63
50.500	0.00	0.10	0.177	I	O		0.63
50.583	0.00	0.10	0.176	I	O		0.63
50.667	0.00	0.10	0.176	I	O		0.62
50.750	0.00	0.10	0.175	I	O		0.62
50.833	0.00	0.10	0.174	I	O		0.62
50.917	0.00	0.10	0.174	I	O		0.62
51.000	0.00	0.10	0.173	I	O		0.62
51.083	0.00	0.10	0.172	I	O		0.61
51.167	0.00	0.10	0.172	I	O		0.61
51.250	0.00	0.10	0.171	I	O		0.61
51.333	0.00	0.10	0.170	I	O		0.61
51.417	0.00	0.10	0.170	I	O		0.60
51.500	0.00	0.10	0.169	I	O		0.60
51.583	0.00	0.10	0.168	I	O		0.60
51.667	0.00	0.10	0.168	I	O		0.60
51.750	0.00	0.10	0.167	I	O		0.60

				ROUTE242.out			
51.833	0.00	0.10	0.166	I O			0.59
51.917	0.00	0.10	0.166	I O			0.59
52.000	0.00	0.10	0.165	I O			0.59
52.083	0.00	0.10	0.164	I O			0.59
52.167	0.00	0.10	0.164	I O			0.58
52.250	0.00	0.10	0.163	I O			0.58
52.333	0.00	0.10	0.162	I O			0.58
52.417	0.00	0.10	0.162	I O			0.58
52.500	0.00	0.10	0.161	I O			0.58
52.583	0.00	0.10	0.160	I O			0.57
52.667	0.00	0.10	0.160	I O			0.57
52.750	0.00	0.10	0.159	I O			0.57
52.833	0.00	0.09	0.158	I O			0.57
52.917	0.00	0.09	0.158	I O			0.56
53.000	0.00	0.09	0.157	I O			0.56
53.083	0.00	0.09	0.156	I O			0.56
53.167	0.00	0.09	0.156	I O			0.56
53.250	0.00	0.09	0.155	I O			0.56
53.333	0.00	0.09	0.154	I O			0.55
53.417	0.00	0.09	0.154	I O			0.55
53.500	0.00	0.09	0.153	I O			0.55
53.583	0.00	0.09	0.153	I O			0.55
53.667	0.00	0.09	0.152	I O			0.55
53.750	0.00	0.09	0.151	I O			0.54
53.833	0.00	0.09	0.151	I O			0.54
53.917	0.00	0.09	0.150	I O			0.54
54.000	0.00	0.09	0.149	I O			0.54
54.083	0.00	0.09	0.149	I O			0.54
54.167	0.00	0.09	0.148	I O			0.53
54.250	0.00	0.09	0.147	I O			0.53
54.333	0.00	0.09	0.147	I O			0.53
54.417	0.00	0.09	0.146	I O			0.53
54.500	0.00	0.09	0.146	I O			0.52
54.583	0.00	0.09	0.145	I O			0.52
54.667	0.00	0.09	0.144	I O			0.52
54.750	0.00	0.09	0.144	I O			0.52
54.833	0.00	0.09	0.143	I O			0.52
54.917	0.00	0.09	0.142	I O			0.51
55.000	0.00	0.09	0.142	I O			0.51
55.083	0.00	0.09	0.141	I O			0.51
55.167	0.00	0.09	0.141	I O			0.51
55.250	0.00	0.09	0.140	I O			0.51
55.333	0.00	0.09	0.139	I O			0.50
55.417	0.00	0.09	0.139	I O			0.50
55.500	0.00	0.09	0.138	I O			0.50
55.583	0.00	0.09	0.137	I O			0.50
55.667	0.00	0.09	0.137	I O			0.50
55.750	0.00	0.09	0.136	I O			0.49
55.833	0.00	0.09	0.136	I O			0.49
55.917	0.00	0.09	0.135	I O			0.49
56.000	0.00	0.09	0.134	I O			0.49
56.083	0.00	0.09	0.134	I O			0.49
56.167	0.00	0.09	0.133	I O			0.48
56.250	0.00	0.09	0.133	I O			0.48
56.333	0.00	0.09	0.132	I O			0.48
56.417	0.00	0.09	0.131	I O			0.48
56.500	0.00	0.09	0.131	I O			0.47
56.583	0.00	0.09	0.130	I O			0.47
56.667	0.00	0.09	0.130	I O			0.47
56.750	0.00	0.09	0.129	I O			0.47
56.833	0.00	0.08	0.129	I O			0.47
56.917	0.00	0.08	0.128	I O			0.46
57.000	0.00	0.08	0.127	I O			0.46

				ROUTE242.out			
57.083	0.00	0.08	0.127	I O			0.46
57.167	0.00	0.08	0.126	I O			0.46
57.250	0.00	0.08	0.126	I O			0.46
57.333	0.00	0.08	0.125	I O			0.45
57.417	0.00	0.08	0.124	I O			0.45
57.500	0.00	0.08	0.124	I O			0.45
57.583	0.00	0.08	0.123	I O			0.45
57.667	0.00	0.08	0.123	I O			0.45
57.750	0.00	0.08	0.122	I O			0.44
57.833	0.00	0.08	0.122	I O			0.44
57.917	0.00	0.08	0.121	I O			0.44
58.000	0.00	0.08	0.121	I O			0.44
58.083	0.00	0.08	0.120	I O			0.44
58.167	0.00	0.08	0.119	I O			0.43
58.250	0.00	0.08	0.119	I O			0.43
58.333	0.00	0.08	0.118	I O			0.43
58.417	0.00	0.08	0.118	I O			0.43
58.500	0.00	0.08	0.117	I O			0.43
58.583	0.00	0.08	0.117	I O			0.43
58.667	0.00	0.08	0.116	I O			0.42
58.750	0.00	0.08	0.116	I O			0.42
58.833	0.00	0.08	0.115	I O			0.42
58.917	0.00	0.08	0.114	I O			0.42
59.000	0.00	0.08	0.114	I O			0.42
59.083	0.00	0.08	0.113	I O			0.41
59.167	0.00	0.08	0.113	I O			0.41
59.250	0.00	0.08	0.112	I O			0.41
59.333	0.00	0.08	0.112	I O			0.41
59.417	0.00	0.08	0.111	I O			0.41
59.500	0.00	0.08	0.111	I O			0.40
59.583	0.00	0.08	0.110	I O			0.40
59.667	0.00	0.08	0.110	I O			0.40
59.750	0.00	0.08	0.109	I O			0.40
59.833	0.00	0.08	0.109	I O			0.40
59.917	0.00	0.08	0.108	I O			0.39
60.000	0.00	0.08	0.108	I O			0.39
60.083	0.00	0.08	0.107	I O			0.39
60.167	0.00	0.08	0.107	I O			0.39
60.250	0.00	0.07	0.106	I O			0.39
60.333	0.00	0.07	0.105	I O			0.39
60.417	0.00	0.07	0.105	I O			0.38
60.500	0.00	0.07	0.104	I O			0.38
60.583	0.00	0.07	0.104	I O			0.38
60.667	0.00	0.07	0.103	I O			0.38
60.750	0.00	0.07	0.103	I O			0.38
60.833	0.00	0.07	0.102	I O			0.38
60.917	0.00	0.07	0.102	I O			0.37
61.000	0.00	0.07	0.101	I O			0.37
61.083	0.00	0.07	0.101	I O			0.37
61.167	0.00	0.07	0.100	I O			0.37
61.250	0.00	0.07	0.100	I O			0.37
61.333	0.00	0.07	0.099	I O			0.36
61.417	0.00	0.07	0.099	I O			0.36
61.500	0.00	0.07	0.098	I O			0.36
61.583	0.00	0.07	0.098	I O			0.36
61.667	0.00	0.07	0.097	I O			0.36
61.750	0.00	0.07	0.097	I O			0.36
61.833	0.00	0.07	0.096	I O			0.35
61.917	0.00	0.07	0.096	I O			0.35
62.000	0.00	0.07	0.095	I O			0.35
62.083	0.00	0.07	0.095	I O			0.35
62.167	0.00	0.07	0.095	I O			0.35
62.250	0.00	0.07	0.094	I O			0.35

				ROUTE242.out			
62.333	0.00	0.07	0.094	I O			0.34
62.417	0.00	0.07	0.093	I O			0.34
62.500	0.00	0.07	0.093	I O			0.34
62.583	0.00	0.07	0.092	I O			0.34
62.667	0.00	0.07	0.092	I O			0.34
62.750	0.00	0.07	0.091	I O			0.34
62.833	0.00	0.07	0.091	I O			0.33
62.917	0.00	0.07	0.090	I O			0.33
63.000	0.00	0.07	0.090	I O			0.33
63.083	0.00	0.07	0.089	I O			0.33
63.167	0.00	0.07	0.089	I O			0.33
63.250	0.00	0.07	0.088	I O			0.33
63.333	0.00	0.07	0.088	I O			0.32
63.417	0.00	0.07	0.087	I O			0.32
63.500	0.00	0.07	0.087	I O			0.32
63.583	0.00	0.07	0.087	I O			0.32
63.667	0.00	0.07	0.086	I O			0.32
63.750	0.00	0.07	0.086	I O			0.32
63.833	0.00	0.07	0.085	I O			0.31
63.917	0.00	0.07	0.085	I O			0.31
64.000	0.00	0.07	0.084	I O			0.31
64.083	0.00	0.07	0.084	I O			0.31
64.167	0.00	0.07	0.083	I O			0.31
64.250	0.00	0.06	0.083	I O			0.31
64.333	0.00	0.06	0.082	IO			0.31
64.417	0.00	0.06	0.082	IO			0.30
64.500	0.00	0.06	0.082	IO			0.30
64.583	0.00	0.06	0.081	IO			0.30
64.667	0.00	0.06	0.081	IO			0.30
64.750	0.00	0.06	0.080	IO			0.30
64.833	0.00	0.06	0.080	IO			0.30
64.917	0.00	0.06	0.079	IO			0.29
65.000	0.00	0.06	0.079	IO			0.29
65.083	0.00	0.06	0.079	IO			0.29
65.167	0.00	0.06	0.078	IO			0.29
65.250	0.00	0.06	0.078	IO			0.29
65.333	0.00	0.06	0.077	IO			0.29
65.417	0.00	0.06	0.077	IO			0.28
65.500	0.00	0.06	0.076	IO			0.28
65.583	0.00	0.06	0.076	IO			0.28
65.667	0.00	0.06	0.076	IO			0.28
65.750	0.00	0.06	0.075	IO			0.28
65.833	0.00	0.06	0.075	IO			0.28
65.917	0.00	0.06	0.074	IO			0.28
66.000	0.00	0.06	0.074	IO			0.27
66.083	0.00	0.06	0.074	IO			0.27
66.167	0.00	0.06	0.073	IO			0.27
66.250	0.00	0.06	0.073	IO			0.27
66.333	0.00	0.06	0.072	IO			0.27
66.417	0.00	0.06	0.072	IO			0.27
66.500	0.00	0.06	0.072	IO			0.27
66.583	0.00	0.06	0.071	IO			0.26
66.667	0.00	0.06	0.071	IO			0.26
66.750	0.00	0.06	0.070	IO			0.26
66.833	0.00	0.06	0.070	IO			0.26
66.917	0.00	0.06	0.070	IO			0.26
67.000	0.00	0.05	0.069	IO			0.26
67.083	0.00	0.05	0.069	IO			0.26
67.167	0.00	0.05	0.069	IO			0.25
67.250	0.00	0.05	0.068	IO			0.25
67.333	0.00	0.05	0.068	IO			0.25
67.417	0.00	0.05	0.067	IO			0.25
67.500	0.00	0.05	0.067	IO			0.25

ROUTE242.out						
67.583	0.00	0.05	0.067	IO		0.25
67.667	0.00	0.05	0.066	IO		0.25
67.750	0.00	0.05	0.066	IO		0.24
67.833	0.00	0.05	0.066	IO		0.24
67.917	0.00	0.05	0.065	IO		0.24
68.000	0.00	0.05	0.065	IO		0.24
68.083	0.00	0.05	0.065	IO		0.24
68.167	0.00	0.05	0.064	IO		0.24
68.250	0.00	0.05	0.064	IO		0.24
68.333	0.00	0.05	0.064	IO		0.24
68.417	0.00	0.05	0.063	IO		0.23
68.500	0.00	0.05	0.063	IO		0.23
68.583	0.00	0.05	0.062	IO		0.23
68.667	0.00	0.05	0.062	IO		0.23
68.750	0.00	0.05	0.062	IO		0.23
68.833	0.00	0.05	0.061	IO		0.23
68.917	0.00	0.05	0.061	IO		0.23
69.000	0.00	0.05	0.061	IO		0.23
69.083	0.00	0.05	0.060	IO		0.22
69.167	0.00	0.05	0.060	IO		0.22
69.250	0.00	0.05	0.060	IO		0.22
69.333	0.00	0.05	0.060	IO		0.22
69.417	0.00	0.05	0.059	IO		0.22
69.500	0.00	0.05	0.059	IO		0.22
69.583	0.00	0.05	0.059	IO		0.22
69.667	0.00	0.05	0.058	IO		0.22
69.750	0.00	0.05	0.058	IO		0.21
69.833	0.00	0.05	0.058	IO		0.21
69.917	0.00	0.05	0.057	IO		0.21
70.000	0.00	0.05	0.057	IO		0.21
70.083	0.00	0.04	0.057	IO		0.21
70.167	0.00	0.04	0.056	IO		0.21
70.250	0.00	0.04	0.056	IO		0.21
70.333	0.00	0.04	0.056	IO		0.21
70.417	0.00	0.04	0.055	IO		0.21
70.500	0.00	0.04	0.055	IO		0.20
70.583	0.00	0.04	0.055	IO		0.20
70.667	0.00	0.04	0.055	IO		0.20
70.750	0.00	0.04	0.054	IO		0.20
70.833	0.00	0.04	0.054	IO		0.20
70.917	0.00	0.04	0.054	IO		0.20
71.000	0.00	0.04	0.053	IO		0.20
71.083	0.00	0.04	0.053	IO		0.20
71.167	0.00	0.04	0.053	IO		0.20
71.250	0.00	0.04	0.053	IO		0.19
71.333	0.00	0.04	0.052	IO		0.19
71.417	0.00	0.04	0.052	IO		0.19
71.500	0.00	0.04	0.052	IO		0.19
71.583	0.00	0.04	0.051	IO		0.19
71.667	0.00	0.04	0.051	IO		0.19
71.750	0.00	0.04	0.051	IO		0.19
71.833	0.00	0.04	0.051	IO		0.19
71.917	0.00	0.04	0.050	IO		0.19
72.000	0.00	0.04	0.050	IO		0.19
72.083	0.00	0.04	0.050	IO		0.18
72.167	0.00	0.04	0.049	IO		0.18
72.250	0.00	0.04	0.049	IO		0.18
72.333	0.00	0.04	0.049	IO		0.18
72.417	0.00	0.04	0.049	IO		0.18
72.500	0.00	0.04	0.048	IO		0.18
72.583	0.00	0.04	0.048	IO		0.18
72.667	0.00	0.04	0.048	IO		0.18
72.750	0.00	0.04	0.048	IO		0.18

ROUTE242.out						
72.833	0.00	0.04	0.047	IO		0.18
72.917	0.00	0.04	0.047	IO		0.17
73.000	0.00	0.04	0.047	IO		0.17
73.083	0.00	0.04	0.047	IO		0.17
73.167	0.00	0.04	0.046	IO		0.17
73.250	0.00	0.04	0.046	IO		0.17
73.333	0.00	0.04	0.046	IO		0.17
73.417	0.00	0.04	0.046	IO		0.17
73.500	0.00	0.04	0.045	IO		0.17
73.583	0.00	0.04	0.045	IO		0.17
73.667	0.00	0.04	0.045	IO		0.17
73.750	0.00	0.04	0.045	IO		0.17
73.833	0.00	0.04	0.044	IO		0.16
73.917	0.00	0.03	0.044	IO		0.16
74.000	0.00	0.03	0.044	IO		0.16
74.083	0.00	0.03	0.044	IO		0.16
74.167	0.00	0.03	0.043	IO		0.16
74.250	0.00	0.03	0.043	IO		0.16
74.333	0.00	0.03	0.043	IO		0.16
74.417	0.00	0.03	0.043	IO		0.16
74.500	0.00	0.03	0.042	IO		0.16
74.583	0.00	0.03	0.042	IO		0.16
74.667	0.00	0.03	0.042	IO		0.16
74.750	0.00	0.03	0.042	IO		0.15
74.833	0.00	0.03	0.042	IO		0.15
74.917	0.00	0.03	0.041	IO		0.15
75.000	0.00	0.03	0.041	IO		0.15
75.083	0.00	0.03	0.041	O		0.15
75.167	0.00	0.03	0.041	O		0.15
75.250	0.00	0.03	0.040	O		0.15
75.333	0.00	0.03	0.040	O		0.15
75.417	0.00	0.03	0.040	O		0.15
75.500	0.00	0.03	0.040	O		0.15
75.583	0.00	0.03	0.040	O		0.15
75.667	0.00	0.03	0.039	O		0.15
75.750	0.00	0.03	0.039	O		0.14
75.833	0.00	0.03	0.039	O		0.14
75.917	0.00	0.03	0.039	O		0.14
76.000	0.00	0.03	0.039	O		0.14
76.083	0.00	0.03	0.038	O		0.14
76.167	0.00	0.03	0.038	O		0.14
76.250	0.00	0.03	0.038	O		0.14
76.333	0.00	0.03	0.038	O		0.14
76.417	0.00	0.03	0.037	O		0.14
76.500	0.00	0.03	0.037	O		0.14
76.583	0.00	0.03	0.037	O		0.14
76.667	0.00	0.03	0.037	O		0.14
76.750	0.00	0.03	0.037	O		0.14
76.833	0.00	0.03	0.036	O		0.14
76.917	0.00	0.03	0.036	O		0.13
77.000	0.00	0.03	0.036	O		0.13
77.083	0.00	0.03	0.036	O		0.13
77.167	0.00	0.03	0.036	O		0.13
77.250	0.00	0.03	0.035	O		0.13
77.333	0.00	0.03	0.035	O		0.13
77.417	0.00	0.03	0.035	O		0.13
77.500	0.00	0.03	0.035	O		0.13
77.583	0.00	0.03	0.035	O		0.13
77.667	0.00	0.03	0.035	O		0.13
77.750	0.00	0.03	0.034	O		0.13
77.833	0.00	0.03	0.034	O		0.13
77.917	0.00	0.03	0.034	O		0.13
78.000	0.00	0.03	0.034	O		0.13

ROUTE242.out					
78.083	0.00	0.03	0.034	0	0.12
78.167	0.00	0.03	0.033	0	0.12
78.250	0.00	0.03	0.033	0	0.12
78.333	0.00	0.03	0.033	0	0.12
78.417	0.00	0.03	0.033	0	0.12
78.500	0.00	0.03	0.033	0	0.12
78.583	0.00	0.03	0.033	0	0.12
78.667	0.00	0.03	0.032	0	0.12
78.750	0.00	0.03	0.032	0	0.12
78.833	0.00	0.03	0.032	0	0.12
78.917	0.00	0.03	0.032	0	0.12
79.000	0.00	0.03	0.032	0	0.12
79.083	0.00	0.02	0.031	0	0.12
79.167	0.00	0.02	0.031	0	0.12
79.250	0.00	0.02	0.031	0	0.12
79.333	0.00	0.02	0.031	0	0.11
79.417	0.00	0.02	0.031	0	0.11
79.500	0.00	0.02	0.031	0	0.11
79.583	0.00	0.02	0.030	0	0.11
79.667	0.00	0.02	0.030	0	0.11
79.750	0.00	0.02	0.030	0	0.11
79.833	0.00	0.02	0.030	0	0.11
79.917	0.00	0.02	0.030	0	0.11
80.000	0.00	0.02	0.030	0	0.11
80.083	0.00	0.02	0.029	0	0.11
80.167	0.00	0.02	0.029	0	0.11
80.250	0.00	0.02	0.029	0	0.11
80.333	0.00	0.02	0.029	0	0.11
80.417	0.00	0.02	0.029	0	0.11
80.500	0.00	0.02	0.029	0	0.11
80.583	0.00	0.02	0.029	0	0.11
80.667	0.00	0.02	0.028	0	0.11
80.750	0.00	0.02	0.028	0	0.10
80.833	0.00	0.02	0.028	0	0.10
80.917	0.00	0.02	0.028	0	0.10
81.000	0.00	0.02	0.028	0	0.10
81.083	0.00	0.02	0.028	0	0.10
81.167	0.00	0.02	0.027	0	0.10
81.250	0.00	0.02	0.027	0	0.10
81.333	0.00	0.02	0.027	0	0.10
81.417	0.00	0.02	0.027	0	0.10
81.500	0.00	0.02	0.027	0	0.10
81.583	0.00	0.02	0.027	0	0.10
81.667	0.00	0.02	0.027	0	0.10
81.750	0.00	0.02	0.026	0	0.10
81.833	0.00	0.02	0.026	0	0.10
81.917	0.00	0.02	0.026	0	0.10
82.000	0.00	0.02	0.026	0	0.10
82.083	0.00	0.02	0.026	0	0.10
82.167	0.00	0.02	0.026	0	0.10
82.250	0.00	0.02	0.026	0	0.09
82.333	0.00	0.02	0.025	0	0.09
82.417	0.00	0.02	0.025	0	0.09
82.500	0.00	0.02	0.025	0	0.09
82.583	0.00	0.02	0.025	0	0.09
82.667	0.00	0.02	0.025	0	0.09
82.750	0.00	0.02	0.025	0	0.09
82.833	0.00	0.02	0.025	0	0.09
82.917	0.00	0.02	0.025	0	0.09
83.000	0.00	0.02	0.024	0	0.09
83.083	0.00	0.02	0.024	0	0.09
83.167	0.00	0.02	0.024	0	0.09
83.250	0.00	0.02	0.024	0	0.09

ROUTE242.out						
83.333	0.00	0.02	0.024	0		0.09
83.417	0.00	0.02	0.024	0		0.09
83.500	0.00	0.02	0.024	0		0.09
83.583	0.00	0.02	0.023	0		0.09
83.667	0.00	0.02	0.023	0		0.09
83.750	0.00	0.02	0.023	0		0.09
83.833	0.00	0.02	0.023	0		0.09
83.917	0.00	0.02	0.023	0		0.09
84.000	0.00	0.02	0.023	0		0.08
84.083	0.00	0.02	0.023	0		0.08
84.167	0.00	0.02	0.023	0		0.08
84.250	0.00	0.02	0.022	0		0.08
84.333	0.00	0.02	0.022	0		0.08
84.417	0.00	0.02	0.022	0		0.08
84.500	0.00	0.02	0.022	0		0.08
84.583	0.00	0.02	0.022	0		0.08
84.667	0.00	0.02	0.022	0		0.08
84.750	0.00	0.02	0.022	0		0.08
84.833	0.00	0.02	0.022	0		0.08
84.917	0.00	0.02	0.022	0		0.08
85.000	0.00	0.02	0.021	0		0.08
85.083	0.00	0.02	0.021	0		0.08
85.167	0.00	0.02	0.021	0		0.08
85.250	0.00	0.02	0.021	0		0.08
85.333	0.00	0.02	0.021	0		0.08
85.417	0.00	0.02	0.021	0		0.08
85.500	0.00	0.02	0.021	0		0.08
85.583	0.00	0.02	0.021	0		0.08
85.667	0.00	0.02	0.020	0		0.08
85.750	0.00	0.02	0.020	0		0.08
85.833	0.00	0.02	0.020	0		0.08
85.917	0.00	0.02	0.020	0		0.07
86.000	0.00	0.02	0.020	0		0.07
86.083	0.00	0.02	0.020	0		0.07
86.167	0.00	0.02	0.020	0		0.07
86.250	0.00	0.02	0.020	0		0.07
86.333	0.00	0.02	0.020	0		0.07
86.417	0.00	0.02	0.020	0		0.07
86.500	0.00	0.02	0.019	0		0.07
86.583	0.00	0.02	0.019	0		0.07
86.667	0.00	0.02	0.019	0		0.07
86.750	0.00	0.02	0.019	0		0.07
86.833	0.00	0.01	0.019	0		0.07
86.917	0.00	0.01	0.019	0		0.07
87.000	0.00	0.01	0.019	0		0.07
87.083	0.00	0.01	0.019	0		0.07
87.167	0.00	0.01	0.019	0		0.07
87.250	0.00	0.01	0.018	0		0.07
87.333	0.00	0.01	0.018	0		0.07
87.417	0.00	0.01	0.018	0		0.07
87.500	0.00	0.01	0.018	0		0.07
87.583	0.00	0.01	0.018	0		0.07
87.667	0.00	0.01	0.018	0		0.07
87.750	0.00	0.01	0.018	0		0.07
87.833	0.00	0.01	0.018	0		0.07
87.917	0.00	0.01	0.018	0		0.07
88.000	0.00	0.01	0.018	0		0.07
88.083	0.00	0.01	0.017	0		0.06
88.167	0.00	0.01	0.017	0		0.06
88.250	0.00	0.01	0.017	0		0.06
88.333	0.00	0.01	0.017	0		0.06
88.417	0.00	0.01	0.017	0		0.06
88.500	0.00	0.01	0.017	0		0.06

ROUTE242.out					
88.583	0.00	0.01	0.017	0	0.06
88.667	0.00	0.01	0.017	0	0.06
88.750	0.00	0.01	0.017	0	0.06
88.833	0.00	0.01	0.017	0	0.06
88.917	0.00	0.01	0.017	0	0.06
89.000	0.00	0.01	0.016	0	0.06
89.083	0.00	0.01	0.016	0	0.06
89.167	0.00	0.01	0.016	0	0.06
89.250	0.00	0.01	0.016	0	0.06
89.333	0.00	0.01	0.016	0	0.06
89.417	0.00	0.01	0.016	0	0.06
89.500	0.00	0.01	0.016	0	0.06
89.583	0.00	0.01	0.016	0	0.06
89.667	0.00	0.01	0.016	0	0.06
89.750	0.00	0.01	0.016	0	0.06
89.833	0.00	0.01	0.016	0	0.06
89.917	0.00	0.01	0.016	0	0.06
90.000	0.00	0.01	0.015	0	0.06
90.083	0.00	0.01	0.015	0	0.06
90.167	0.00	0.01	0.015	0	0.06
90.250	0.00	0.01	0.015	0	0.06
90.333	0.00	0.01	0.015	0	0.06
90.417	0.00	0.01	0.015	0	0.06
90.500	0.00	0.01	0.015	0	0.06
90.583	0.00	0.01	0.015	0	0.06
90.667	0.00	0.01	0.015	0	0.05
90.750	0.00	0.01	0.015	0	0.05
90.833	0.00	0.01	0.015	0	0.05
90.917	0.00	0.01	0.015	0	0.05
91.000	0.00	0.01	0.014	0	0.05
91.083	0.00	0.01	0.014	0	0.05
91.167	0.00	0.01	0.014	0	0.05
91.250	0.00	0.01	0.014	0	0.05
91.333	0.00	0.01	0.014	0	0.05
91.417	0.00	0.01	0.014	0	0.05
91.500	0.00	0.01	0.014	0	0.05
91.583	0.00	0.01	0.014	0	0.05
91.667	0.00	0.01	0.014	0	0.05
91.750	0.00	0.01	0.014	0	0.05
91.833	0.00	0.01	0.014	0	0.05
91.917	0.00	0.01	0.014	0	0.05
92.000	0.00	0.01	0.014	0	0.05
92.083	0.00	0.01	0.013	0	0.05
92.167	0.00	0.01	0.013	0	0.05
92.250	0.00	0.01	0.013	0	0.05
92.333	0.00	0.01	0.013	0	0.05
92.417	0.00	0.01	0.013	0	0.05
92.500	0.00	0.01	0.013	0	0.05
92.583	0.00	0.01	0.013	0	0.05
92.667	0.00	0.01	0.013	0	0.05
92.750	0.00	0.01	0.013	0	0.05
92.833	0.00	0.01	0.013	0	0.05
92.917	0.00	0.01	0.013	0	0.05
93.000	0.00	0.01	0.013	0	0.05
93.083	0.00	0.01	0.013	0	0.05
93.167	0.00	0.01	0.013	0	0.05
93.250	0.00	0.01	0.012	0	0.05
93.333	0.00	0.01	0.012	0	0.05
93.417	0.00	0.01	0.012	0	0.05
93.500	0.00	0.01	0.012	0	0.05
93.583	0.00	0.01	0.012	0	0.05
93.667	0.00	0.01	0.012	0	0.04
93.750	0.00	0.01	0.012	0	0.04

ROUTE242.out					
93.833	0.00	0.01	0.012	0	0.04
93.917	0.00	0.01	0.012	0	0.04
94.000	0.00	0.01	0.012	0	0.04
94.083	0.00	0.01	0.012	0	0.04
94.167	0.00	0.01	0.012	0	0.04
94.250	0.00	0.01	0.012	0	0.04
94.333	0.00	0.01	0.012	0	0.04
94.417	0.00	0.01	0.012	0	0.04
94.500	0.00	0.01	0.012	0	0.04
94.583	0.00	0.01	0.011	0	0.04
94.667	0.00	0.01	0.011	0	0.04
94.750	0.00	0.01	0.011	0	0.04
94.833	0.00	0.01	0.011	0	0.04
94.917	0.00	0.01	0.011	0	0.04
95.000	0.00	0.01	0.011	0	0.04
95.083	0.00	0.01	0.011	0	0.04
95.167	0.00	0.01	0.011	0	0.04
95.250	0.00	0.01	0.011	0	0.04
95.333	0.00	0.01	0.011	0	0.04
95.417	0.00	0.01	0.011	0	0.04
95.500	0.00	0.01	0.011	0	0.04
95.583	0.00	0.01	0.011	0	0.04
95.667	0.00	0.01	0.011	0	0.04
95.750	0.00	0.01	0.011	0	0.04
95.833	0.00	0.01	0.011	0	0.04
95.917	0.00	0.01	0.010	0	0.04
96.000	0.00	0.01	0.010	0	0.04
96.083	0.00	0.01	0.010	0	0.04
96.167	0.00	0.01	0.010	0	0.04
96.250	0.00	0.01	0.010	0	0.04
96.333	0.00	0.01	0.010	0	0.04
96.417	0.00	0.01	0.010	0	0.04
96.500	0.00	0.01	0.010	0	0.04
96.583	0.00	0.01	0.010	0	0.04
96.667	0.00	0.01	0.010	0	0.04
96.750	0.00	0.01	0.010	0	0.04
96.833	0.00	0.01	0.010	0	0.04
96.917	0.00	0.01	0.010	0	0.04
97.000	0.00	0.01	0.010	0	0.04
97.083	0.00	0.01	0.010	0	0.04
97.167	0.00	0.01	0.010	0	0.04
97.250	0.00	0.01	0.010	0	0.04
97.333	0.00	0.01	0.010	0	0.04
97.417	0.00	0.01	0.010	0	0.04
97.500	0.00	0.01	0.009	0	0.04
97.583	0.00	0.01	0.009	0	0.03
97.667	0.00	0.01	0.009	0	0.03
97.750	0.00	0.01	0.009	0	0.03
97.833	0.00	0.01	0.009	0	0.03
97.917	0.00	0.01	0.009	0	0.03
98.000	0.00	0.01	0.009	0	0.03
98.083	0.00	0.01	0.009	0	0.03
98.167	0.00	0.01	0.009	0	0.03
98.250	0.00	0.01	0.009	0	0.03
98.333	0.00	0.01	0.009	0	0.03
98.417	0.00	0.01	0.009	0	0.03
98.500	0.00	0.01	0.009	0	0.03
98.583	0.00	0.01	0.009	0	0.03
98.667	0.00	0.01	0.009	0	0.03
98.750	0.00	0.01	0.009	0	0.03
98.833	0.00	0.01	0.009	0	0.03
98.917	0.00	0.01	0.009	0	0.03
99.000	0.00	0.01	0.009	0	0.03

ROUTE242.out					
99.083	0.00	0.01	0.009	0	0.03
99.167	0.00	0.01	0.008	0	0.03
99.250	0.00	0.01	0.008	0	0.03
99.333	0.00	0.01	0.008	0	0.03
99.417	0.00	0.01	0.008	0	0.03
99.500	0.00	0.01	0.008	0	0.03
99.583	0.00	0.01	0.008	0	0.03
99.667	0.00	0.01	0.008	0	0.03
99.750	0.00	0.01	0.008	0	0.03
99.833	0.00	0.01	0.008	0	0.03
99.917	0.00	0.01	0.008	0	0.03
100.000	0.00	0.01	0.008	0	0.03
100.083	0.00	0.01	0.008	0	0.03
100.167	0.00	0.01	0.008	0	0.03
100.250	0.00	0.01	0.008	0	0.03
100.333	0.00	0.01	0.008	0	0.03
100.417	0.00	0.01	0.008	0	0.03
100.500	0.00	0.01	0.008	0	0.03
100.583	0.00	0.01	0.008	0	0.03
100.667	0.00	0.01	0.008	0	0.03
100.750	0.00	0.01	0.008	0	0.03
100.833	0.00	0.01	0.008	0	0.03
100.917	0.00	0.01	0.008	0	0.03
101.000	0.00	0.01	0.008	0	0.03
101.083	0.00	0.01	0.007	0	0.03
101.167	0.00	0.01	0.007	0	0.03
101.250	0.00	0.01	0.007	0	0.03
101.333	0.00	0.01	0.007	0	0.03
101.417	0.00	0.01	0.007	0	0.03
101.500	0.00	0.01	0.007	0	0.03
101.583	0.00	0.01	0.007	0	0.03
101.667	0.00	0.01	0.007	0	0.03
101.750	0.00	0.01	0.007	0	0.03
101.833	0.00	0.01	0.007	0	0.03
101.917	0.00	0.01	0.007	0	0.03
102.000	0.00	0.01	0.007	0	0.03
102.083	0.00	0.01	0.007	0	0.03
102.167	0.00	0.01	0.007	0	0.03
102.250	0.00	0.01	0.007	0	0.03
102.333	0.00	0.01	0.007	0	0.03
102.417	0.00	0.01	0.007	0	0.03
102.500	0.00	0.01	0.007	0	0.03
102.583	0.00	0.01	0.007	0	0.03
102.667	0.00	0.01	0.007	0	0.02
102.750	0.00	0.01	0.007	0	0.02
102.833	0.00	0.01	0.007	0	0.02
102.917	0.00	0.01	0.007	0	0.02
103.000	0.00	0.01	0.007	0	0.02
103.083	0.00	0.01	0.007	0	0.02
103.167	0.00	0.01	0.007	0	0.02
103.250	0.00	0.01	0.006	0	0.02
103.333	0.00	0.01	0.006	0	0.02
103.417	0.00	0.01	0.006	0	0.02
103.500	0.00	0.01	0.006	0	0.02
103.583	0.00	0.01	0.006	0	0.02
103.667	0.00	0.00	0.006	0	0.02
103.750	0.00	0.00	0.006	0	0.02
103.833	0.00	0.00	0.006	0	0.02
103.917	0.00	0.00	0.006	0	0.02
104.000	0.00	0.00	0.006	0	0.02
104.083	0.00	0.00	0.006	0	0.02
104.167	0.00	0.00	0.006	0	0.02
104.250	0.00	0.00	0.006	0	0.02

ROUTE242.out					
104.333	0.00	0.00	0.006	0	0.02
104.417	0.00	0.00	0.006	0	0.02
104.500	0.00	0.00	0.006	0	0.02
104.583	0.00	0.00	0.006	0	0.02
104.667	0.00	0.00	0.006	0	0.02
104.750	0.00	0.00	0.006	0	0.02
104.833	0.00	0.00	0.006	0	0.02
104.917	0.00	0.00	0.006	0	0.02
105.000	0.00	0.00	0.006	0	0.02
105.083	0.00	0.00	0.006	0	0.02
105.167	0.00	0.00	0.006	0	0.02
105.250	0.00	0.00	0.006	0	0.02
105.333	0.00	0.00	0.006	0	0.02
105.417	0.00	0.00	0.006	0	0.02
105.500	0.00	0.00	0.006	0	0.02
105.583	0.00	0.00	0.006	0	0.02
105.667	0.00	0.00	0.006	0	0.02
105.750	0.00	0.00	0.006	0	0.02
105.833	0.00	0.00	0.005	0	0.02
105.917	0.00	0.00	0.005	0	0.02
106.000	0.00	0.00	0.005	0	0.02
106.083	0.00	0.00	0.005	0	0.02
106.167	0.00	0.00	0.005	0	0.02
106.250	0.00	0.00	0.005	0	0.02
106.333	0.00	0.00	0.005	0	0.02
106.417	0.00	0.00	0.005	0	0.02
106.500	0.00	0.00	0.005	0	0.02
106.583	0.00	0.00	0.005	0	0.02
106.667	0.00	0.00	0.005	0	0.02
106.750	0.00	0.00	0.005	0	0.02
106.833	0.00	0.00	0.005	0	0.02
106.917	0.00	0.00	0.005	0	0.02
107.000	0.00	0.00	0.005	0	0.02
107.083	0.00	0.00	0.005	0	0.02
107.167	0.00	0.00	0.005	0	0.02
107.250	0.00	0.00	0.005	0	0.02
107.333	0.00	0.00	0.005	0	0.02
107.417	0.00	0.00	0.005	0	0.02
107.500	0.00	0.00	0.005	0	0.02
107.583	0.00	0.00	0.005	0	0.02
107.667	0.00	0.00	0.005	0	0.02
107.750	0.00	0.00	0.005	0	0.02
107.833	0.00	0.00	0.005	0	0.02
107.917	0.00	0.00	0.005	0	0.02
108.000	0.00	0.00	0.005	0	0.02
108.083	0.00	0.00	0.005	0	0.02
108.167	0.00	0.00	0.005	0	0.02
108.250	0.00	0.00	0.005	0	0.02
108.333	0.00	0.00	0.005	0	0.02
108.417	0.00	0.00	0.005	0	0.02
108.500	0.00	0.00	0.005	0	0.02
108.583	0.00	0.00	0.005	0	0.02
108.667	0.00	0.00	0.005	0	0.02
108.750	0.00	0.00	0.005	0	0.02
108.833	0.00	0.00	0.005	0	0.02
108.917	0.00	0.00	0.004	0	0.02
109.000	0.00	0.00	0.004	0	0.02
109.083	0.00	0.00	0.004	0	0.02
109.167	0.00	0.00	0.004	0	0.02
109.250	0.00	0.00	0.004	0	0.02
109.333	0.00	0.00	0.004	0	0.02
109.417	0.00	0.00	0.004	0	0.02
109.500	0.00	0.00	0.004	0	0.02

				ROUTE242.out				
109.583	0.00	0.00	0.004	0				0.02
109.667	0.00	0.00	0.004	0				0.02
109.750	0.00	0.00	0.004	0				0.02
109.833	0.00	0.00	0.004	0				0.02
109.917	0.00	0.00	0.004	0				0.02
110.000	0.00	0.00	0.004	0				0.02
110.083	0.00	0.00	0.004	0				0.02
110.167	0.00	0.00	0.004	0				0.02
110.250	0.00	0.00	0.004	0				0.02
110.333	0.00	0.00	0.004	0				0.02
110.417	0.00	0.00	0.004	0				0.02
110.500	0.00	0.00	0.004	0				0.01
110.583	0.00	0.00	0.004	0				0.01
110.667	0.00	0.00	0.004	0				0.01
110.750	0.00	0.00	0.004	0				0.01
110.833	0.00	0.00	0.004	0				0.01
110.917	0.00	0.00	0.004	0				0.01
111.000	0.00	0.00	0.004	0				0.01
111.083	0.00	0.00	0.004	0				0.01
111.167	0.00	0.00	0.004	0				0.01
111.250	0.00	0.00	0.004	0				0.01
111.333	0.00	0.00	0.004	0				0.01
111.417	0.00	0.00	0.004	0				0.01
111.500	0.00	0.00	0.004	0				0.01
111.583	0.00	0.00	0.004	0				0.01
111.667	0.00	0.00	0.004	0				0.01
111.750	0.00	0.00	0.004	0				0.01
111.833	0.00	0.00	0.004	0				0.01
111.917	0.00	0.00	0.004	0				0.01
112.000	0.00	0.00	0.004	0				0.01
112.083	0.00	0.00	0.004	0				0.01
112.167	0.00	0.00	0.004	0				0.01
112.250	0.00	0.00	0.004	0				0.01
112.333	0.00	0.00	0.004	0				0.01
112.417	0.00	0.00	0.004	0				0.01
112.500	0.00	0.00	0.004	0				0.01
112.583	0.00	0.00	0.004	0				0.01
112.667	0.00	0.00	0.004	0				0.01
112.750	0.00	0.00	0.003	0				0.01
112.833	0.00	0.00	0.003	0				0.01
112.917	0.00	0.00	0.003	0				0.01
113.000	0.00	0.00	0.003	0				0.01
113.083	0.00	0.00	0.003	0				0.01
113.167	0.00	0.00	0.003	0				0.01
113.250	0.00	0.00	0.003	0				0.01
113.333	0.00	0.00	0.003	0				0.01
113.417	0.00	0.00	0.003	0				0.01
113.500	0.00	0.00	0.003	0				0.01
113.583	0.00	0.00	0.003	0				0.01
113.667	0.00	0.00	0.003	0				0.01
113.750	0.00	0.00	0.003	0				0.01
113.833	0.00	0.00	0.003	0				0.01
113.917	0.00	0.00	0.003	0				0.01
114.000	0.00	0.00	0.003	0				0.01
114.083	0.00	0.00	0.003	0				0.01
114.167	0.00	0.00	0.003	0				0.01
114.250	0.00	0.00	0.003	0				0.01
114.333	0.00	0.00	0.003	0				0.01
114.417	0.00	0.00	0.003	0				0.01
114.500	0.00	0.00	0.003	0				0.01
114.583	0.00	0.00	0.003	0				0.01
114.667	0.00	0.00	0.003	0				0.01
114.750	0.00	0.00	0.003	0				0.01

ROUTE242.out					
114.833	0.00	0.00	0.003	0	0.01
114.917	0.00	0.00	0.003	0	0.01
115.000	0.00	0.00	0.003	0	0.01
115.083	0.00	0.00	0.003	0	0.01
115.167	0.00	0.00	0.003	0	0.01
115.250	0.00	0.00	0.003	0	0.01
115.333	0.00	0.00	0.003	0	0.01
115.417	0.00	0.00	0.003	0	0.01
115.500	0.00	0.00	0.003	0	0.01
115.583	0.00	0.00	0.003	0	0.01
115.667	0.00	0.00	0.003	0	0.01
115.750	0.00	0.00	0.003	0	0.01
115.833	0.00	0.00	0.003	0	0.01
115.917	0.00	0.00	0.003	0	0.01
116.000	0.00	0.00	0.003	0	0.01
116.083	0.00	0.00	0.003	0	0.01
116.167	0.00	0.00	0.003	0	0.01
116.250	0.00	0.00	0.003	0	0.01
116.333	0.00	0.00	0.003	0	0.01
116.417	0.00	0.00	0.003	0	0.01
116.500	0.00	0.00	0.003	0	0.01
116.583	0.00	0.00	0.003	0	0.01
116.667	0.00	0.00	0.003	0	0.01
116.750	0.00	0.00	0.003	0	0.01
116.833	0.00	0.00	0.003	0	0.01
116.917	0.00	0.00	0.003	0	0.01
117.000	0.00	0.00	0.003	0	0.01
117.083	0.00	0.00	0.003	0	0.01
117.167	0.00	0.00	0.003	0	0.01
117.250	0.00	0.00	0.003	0	0.01
117.333	0.00	0.00	0.003	0	0.01
117.417	0.00	0.00	0.003	0	0.01
117.500	0.00	0.00	0.003	0	0.01
117.583	0.00	0.00	0.003	0	0.01
117.667	0.00	0.00	0.003	0	0.01
117.750	0.00	0.00	0.003	0	0.01
117.833	0.00	0.00	0.003	0	0.01
117.917	0.00	0.00	0.002	0	0.01
118.000	0.00	0.00	0.002	0	0.01
118.083	0.00	0.00	0.002	0	0.01
118.167	0.00	0.00	0.002	0	0.01
118.250	0.00	0.00	0.002	0	0.01
118.333	0.00	0.00	0.002	0	0.01
118.417	0.00	0.00	0.002	0	0.01
118.500	0.00	0.00	0.002	0	0.01
118.583	0.00	0.00	0.002	0	0.01
118.667	0.00	0.00	0.002	0	0.01
118.750	0.00	0.00	0.002	0	0.01
118.833	0.00	0.00	0.002	0	0.01
118.917	0.00	0.00	0.002	0	0.01
119.000	0.00	0.00	0.002	0	0.01
119.083	0.00	0.00	0.002	0	0.01
119.167	0.00	0.00	0.002	0	0.01
119.250	0.00	0.00	0.002	0	0.01
119.333	0.00	0.00	0.002	0	0.01
119.417	0.00	0.00	0.002	0	0.01
119.500	0.00	0.00	0.002	0	0.01
119.583	0.00	0.00	0.002	0	0.01
119.667	0.00	0.00	0.002	0	0.01
119.750	0.00	0.00	0.002	0	0.01
119.833	0.00	0.00	0.002	0	0.01
119.917	0.00	0.00	0.002	0	0.01
120.000	0.00	0.00	0.002	0	0.01

ROUTE242.out					
120.083	0.00	0.00	0.002	0	0.01
120.167	0.00	0.00	0.002	0	0.01
120.250	0.00	0.00	0.002	0	0.01
120.333	0.00	0.00	0.002	0	0.01
120.417	0.00	0.00	0.002	0	0.01
120.500	0.00	0.00	0.002	0	0.01
120.583	0.00	0.00	0.002	0	0.01
120.667	0.00	0.00	0.002	0	0.01
120.750	0.00	0.00	0.002	0	0.01
120.833	0.00	0.00	0.002	0	0.01
120.917	0.00	0.00	0.002	0	0.01
121.000	0.00	0.00	0.002	0	0.01
121.083	0.00	0.00	0.002	0	0.01
121.167	0.00	0.00	0.002	0	0.01
121.250	0.00	0.00	0.002	0	0.01
121.333	0.00	0.00	0.002	0	0.01
121.417	0.00	0.00	0.002	0	0.01
121.500	0.00	0.00	0.002	0	0.01
121.583	0.00	0.00	0.002	0	0.01
121.667	0.00	0.00	0.002	0	0.01
121.750	0.00	0.00	0.002	0	0.01
121.833	0.00	0.00	0.002	0	0.01
121.917	0.00	0.00	0.002	0	0.01
122.000	0.00	0.00	0.002	0	0.01
122.083	0.00	0.00	0.002	0	0.01
122.167	0.00	0.00	0.002	0	0.01
122.250	0.00	0.00	0.002	0	0.01
122.333	0.00	0.00	0.002	0	0.01
122.417	0.00	0.00	0.002	0	0.01
122.500	0.00	0.00	0.002	0	0.01
122.583	0.00	0.00	0.002	0	0.01
122.667	0.00	0.00	0.002	0	0.01
122.750	0.00	0.00	0.002	0	0.01
122.833	0.00	0.00	0.002	0	0.01
122.917	0.00	0.00	0.002	0	0.01
123.000	0.00	0.00	0.002	0	0.01
123.083	0.00	0.00	0.002	0	0.01
123.167	0.00	0.00	0.002	0	0.01
123.250	0.00	0.00	0.002	0	0.01
123.333	0.00	0.00	0.002	0	0.01
123.417	0.00	0.00	0.002	0	0.01
123.500	0.00	0.00	0.002	0	0.01
123.583	0.00	0.00	0.002	0	0.01
123.667	0.00	0.00	0.002	0	0.01
123.750	0.00	0.00	0.002	0	0.01
123.833	0.00	0.00	0.002	0	0.01
123.917	0.00	0.00	0.002	0	0.01
124.000	0.00	0.00	0.002	0	0.01
124.083	0.00	0.00	0.002	0	0.01
124.167	0.00	0.00	0.002	0	0.01
124.250	0.00	0.00	0.002	0	0.01
124.333	0.00	0.00	0.002	0	0.01
124.417	0.00	0.00	0.002	0	0.01
124.500	0.00	0.00	0.002	0	0.01
124.583	0.00	0.00	0.002	0	0.01
124.667	0.00	0.00	0.002	0	0.01
124.750	0.00	0.00	0.002	0	0.01
124.833	0.00	0.00	0.002	0	0.01
124.917	0.00	0.00	0.002	0	0.01
125.000	0.00	0.00	0.002	0	0.01
125.083	0.00	0.00	0.002	0	0.01
125.167	0.00	0.00	0.002	0	0.01
125.250	0.00	0.00	0.002	0	0.01

ROUTE242.out						
125.333	0.00	0.00	0.002	0		0.01
125.417	0.00	0.00	0.002	0		0.01
125.500	0.00	0.00	0.002	0		0.01
125.583	0.00	0.00	0.002	0		0.01
125.667	0.00	0.00	0.002	0		0.01
125.750	0.00	0.00	0.001	0		0.01
125.833	0.00	0.00	0.001	0		0.01
125.917	0.00	0.00	0.001	0		0.01
126.000	0.00	0.00	0.001	0		0.01
126.083	0.00	0.00	0.001	0		0.01
126.167	0.00	0.00	0.001	0		0.01
126.250	0.00	0.00	0.001	0		0.01
126.333	0.00	0.00	0.001	0		0.01
126.417	0.00	0.00	0.001	0		0.01
126.500	0.00	0.00	0.001	0		0.01
126.583	0.00	0.00	0.001	0		0.01
126.667	0.00	0.00	0.001	0		0.01
126.750	0.00	0.00	0.001	0		0.01
126.833	0.00	0.00	0.001	0		0.01
126.917	0.00	0.00	0.001	0		0.01
127.000	0.00	0.00	0.001	0		0.01
127.083	0.00	0.00	0.001	0		0.01
127.167	0.00	0.00	0.001	0		0.01
127.250	0.00	0.00	0.001	0		0.01
127.333	0.00	0.00	0.001	0		0.00
127.417	0.00	0.00	0.001	0		0.00
127.500	0.00	0.00	0.001	0		0.00
127.583	0.00	0.00	0.001	0		0.00
127.667	0.00	0.00	0.001	0		0.00
127.750	0.00	0.00	0.001	0		0.00
127.833	0.00	0.00	0.001	0		0.00
127.917	0.00	0.00	0.001	0		0.00
128.000	0.00	0.00	0.001	0		0.00
128.083	0.00	0.00	0.001	0		0.00
128.167	0.00	0.00	0.001	0		0.00
128.250	0.00	0.00	0.001	0		0.00
128.333	0.00	0.00	0.001	0		0.00

Remaining water in basin = 0.00 (Ac.Ft)

```

*****HYDROGRAPH DATA*****
      Number of intervals = 1540
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 0.173 (CFS)
      Total volume = 0.686 (Ac.Ft)
      Status of hydrographs being held in storage
      Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
      Peak (CFS) 0.000 0.000 0.000 0.000 0.000
      Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000
*****

```

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

Attachment: Water Quality Management Plan (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

MEMORANDUM

Date:	October 14, 2016	TG:	16513.00
To:	Rafik Albert, E P D Solutions, Inc.		
From:	Meghan Macias, TE		
cc:			
Subject:	Brodiaea Warehouse Project Trip Generation Analysis		

The following technical memorandum presents an analysis of the trip generation for the proposed Brodiaea warehouse project, located at the southeast corner of Heacock Street/Brodiaea Avenue in the City of Moreno Valley (City). The project proposes the construction of a 99,978 square foot industrial warehouse facility on a 6.71-acre site (APN 297-170-078-5). The triangular site is bounded on the north by Brodiaea Avenue, on the west and south by warehouse uses, and on the east by the Heacock Drainage Channel and Heacock Street. The project site is currently vacant.

Project Trip Generation

The project trip generation was prepared using trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition (2012). Because the project would generate truck trips, the passenger car equivalent (PCE) trip generation of the project was calculated. PCE factors account for the fact that large vehicles, such as trucks, utilize more roadway capacity than passenger cars due to their larger size, slower acceleration and reduced maneuverability. Truck percentages were taken from the Fontana Truck Trip Generation Study¹ and PCE factors are referenced from the San Bernardino Associated Governments Congestion Management Program². Table 1 (provided on the following page) presents the trip generation estimate for the proposed project.

As shown in Table 1, the project is forecast to generate 452 daily PCE trips including 38 PCE trips during the AM peak hour and 41 PCE trips during the PM peak hour. According to Exhibit A of the City of Moreno Valley *Traffic Impact Analysis Preparation Guide*, projects that generate fewer than 100 vehicle trips during the peak hours are generally exempt from the requirement to prepare a traffic impact analysis. The proposed Brodiaea Warehouse project would generate fewer than 100 peak hour PCE trips and would therefore be exempt from the requirement to prepare a TIA.

If you have any questions about this analysis, please contact me at (949) 656-7908 or at meghan.macias@transpogroup.com.

¹ *Truck Trip Generation Study*, City of Fontana, August 2003.

² *San Bernardino County Congestion Management Program*, San Bernardino Associated Governments, 2016.

Table 1. Brodiaea Warehouse PCE Trip Generation

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<u>Trip Rates</u>								
Warehouse ¹	TSF	3.560	0.237	0.063	0.300	0.080	0.240	0.320

Total Vehicle Trip Generation

Warehouse	99.978 TSF	356	24	6	30	8	24	32
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Vehicle Mix²**Percent**

Passenger Vehicles	80.30%	286	19	5	24	6	19	26
2-Axle Trucks	5.20%	19	1	0	2	0	1	2
3-Axle Trucks	4.50%	16	1	0	1	0	1	1
4+-Axle Trucks	10.00%	36	2	1	3	1	2	3
	100%	356	24	6	30	8	24	32

PCE Trip Generation**PCE Factor**

Passenger Vehicles	1.0	286	19	5	24	6	19	26
2-Axle Trucks	1.5	28	2	0	2	1	2	2
3-Axle Trucks	2.0	32	2	1	3	1	2	3
4+-Axle Trucks	3.0	107	7	2	9	2	7	10
Total PCE Trip Generation		452	30	8	38	10	30	41

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers, *Trip Generation, 9th Edition*, 2012. Land Use Code 150 - Warehousing.

² Vehicle Mix from the City of Fontana, *Truck Trip Generation Study*, August 2003. Classification: Light Warehouse.

³ Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, *Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County*, 2016.

Health Risk Analysis Report Brodiaea Site City of Moreno Valley, California

Prepared for:
E|P|D Solutions, Inc.
2030 Main St., Ste. 1200
Irvine, CA 92614
(949) 794.1183

Contact: Konstanza Dobрева, JD
Senior Associate

Prepared by:
Vince Mirabella
7163 Windermere Drive
Fontana, CA 92336
(909) 239-8430

February 10, 2017

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ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AADT	annual average daily traffic
AERMOD	AMS/EPA Regulatory Model
ARB	California Air Resources Board
CEQA	California Environmental Quality Act
CBP	Centerpointe Business Park
CPF	cancer potency factor
DBR	daily breathing rate
DPM	diesel particulate matter
ED	exposure duration
EF	exposure frequency
EMFAC	ARB Mobile Source Emission Factor Model
EPA	Environmental Protection Agency
HHDT	heavy heavy duty trucks
HI	hazard index
HRA	health risk analysis
ISMND	Initial Study/Mitigated Negative Declaration
MHDT	medium heavy duty trucks
OEHHA	California Office of Environmental Health Hazards Assessment
PM_{10}	particulate matter less than 10 microns in diameter
$\text{PM}_{2.5}$	particulate matter less than 2.5 microns in diameter
REL	reference exposure level
SCAQMD	South Coast Air Quality Management District
TOG	total organic gases
VMT	vehicle miles traveled

SECTION 1: INTRODUCTION

1.1 - Purpose and Methods of Analysis

The following health risk analysis was prepared to evaluate whether the estimated toxics air contaminant emissions generated from the Brodiaea Site Project (“project”) would cause significant impacts to the air resources in the project area. This health risk analysis also updates a previous health risk analysis report prepared for the Centerpointe Business Park (CBP) (Mestre Greve Associated 2005) that examined the potential health risk impacts from the CBP of which the Brodiaea Site Project is a component.

The methodology follows the South Coast Air Quality Management District (SCAQMD) “Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis” (SCAQMD 2003).

1.2 - Project Location and Description

The project is located within the City of Moreno Valley, California. The project site is at the southwest corner of the intersection of Heacock Street and Brodiaea Avenue. The project site is bounded by existing warehouse land uses to the west, vacant land to the north and south, and residential developments to the east across Heacock Street.

The project consists of the construction and development of a single story 99,978-square-foot warehouse tilt-up structure on approximately 6.71-acre site. The project’s regional location is shown in Exhibit 1. Exhibit 2 provides a local vicinity aerial base map and Exhibit 3 provides a site plan design.

1.3 - Summary of Analysis Results

The analysis of the project’s operational impacts supports the following conclusions:

- The project would not exceed any project-level health risk or hazard significance threshold adopted for this assessment.
- Therefore, the operation of the project would not expose sensitive receptors to substantial pollutant concentrations.
- The potential health impacts from the project would not add any new health risk impacts than previously identified as part of the CBP Initial Study/Mitigated Negative Declaration prepared for the CBP by the City of Moreno Valley (City of Moreno Valley 2005)

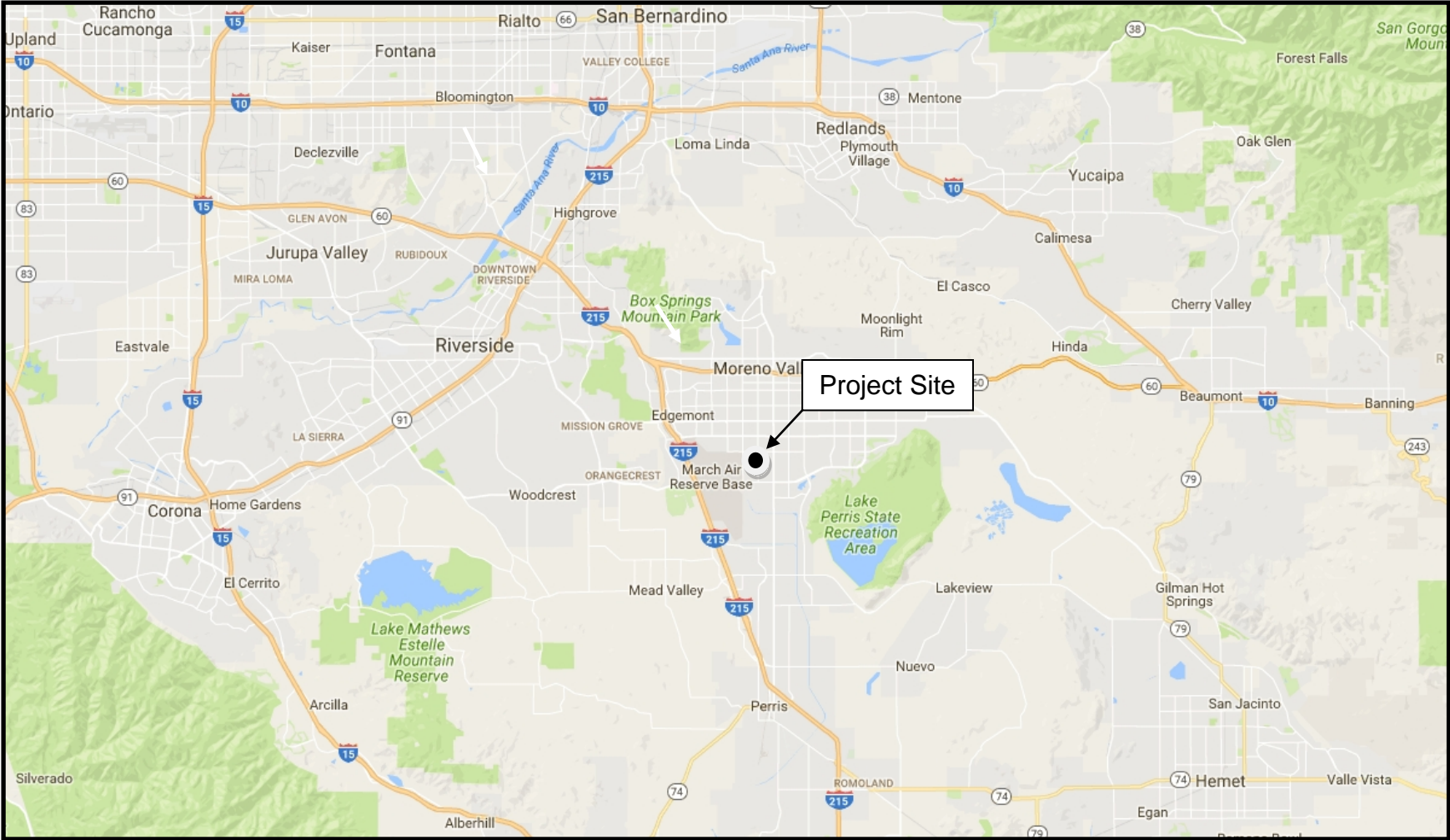


Exhibit 1 Regional Location Map

FEBRUARY 2017 | 1_Regional Location

EIP/D SOLUTIONS, INC. • BRODIAEA SITE
HEALTH RISK ASSESSMENT REPORT

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea



Exhibit 2 Local Vicinity Map Aerial Base

FEBRUARY 2017 | 2_Local Location

EIP/D SOLUTIONS, INC. • BRODIAEA SITE
HEALTH RISK ASSESSMENT REPORT

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

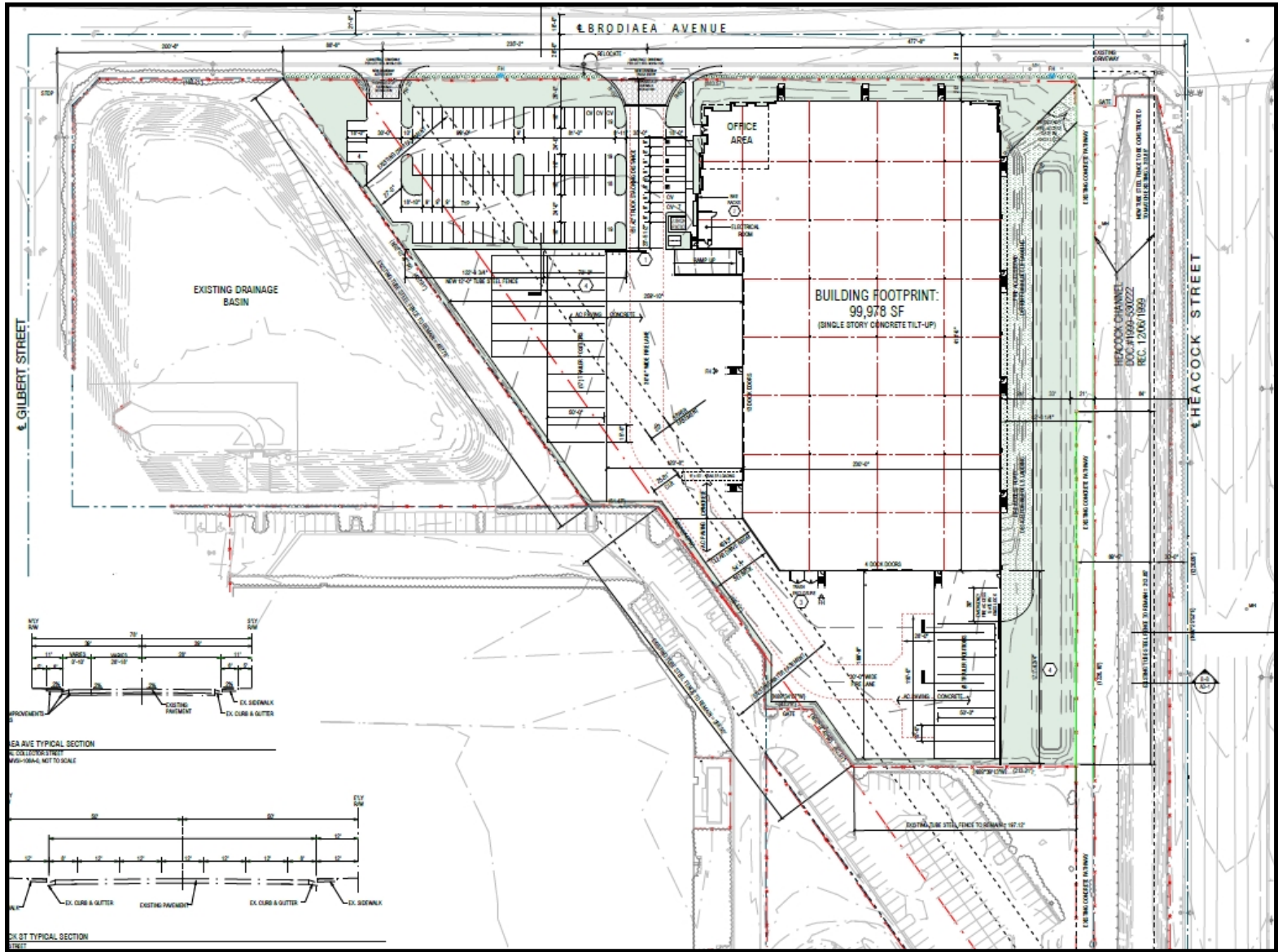


Exhibit 3 Site Plan

FEBRUARY 2017 | 3_site plan

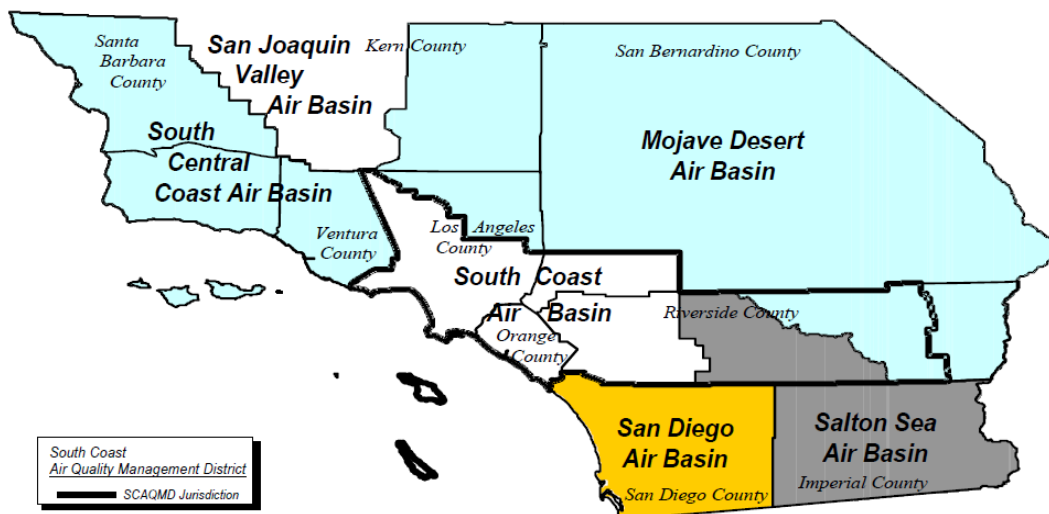
EIP|D SOLUTIONS, INC. • BRODIAEA SITE
HEALTH RISK ASSESSMENT REPORT

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

SECTION 2: ENVIRONMENTAL AND REGULATORY SETTING

2.1 - Environmental Setting

The project is located in the South Coast Air Basin (Air Basin). Regional and local air quality are impacted by topography, dominant airflows, atmospheric inversions, location, and season. To the west of the Air Basin is the Pacific Ocean and the Los Padres National Forest. To the north and east of the basin are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the basin is the San Diego County line. The basin consists of Orange County, all of Los Angeles County except for the Antelope Valley, and the non-desert portions of western San Bernardino County and Riverside County (see illustration above).



and the non-desert portions of western San Bernardino County and Riverside County (see illustration above). The SCAQMD also has jurisdiction over the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin; however, those basins are not within the Air Basin.

The air quality in the basin is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day. Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers often have periods of hazy visibility and occasionally unhealthy air, while air quality impacts in the winter tend to be localized. Higher temperatures and sunshine can contribute to air pollutant formation, particularly ozone. Impacts of ozone are discussed in the impact sections of this analysis. The annual average temperature varies little throughout

much of the basin, ranging from the low to middle 60s to the upper 80s (degrees Fahrenheit). The majority of the annual rainfall in the area occurs between December and March.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as the Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events. The primary wind direction near the project site is from the northwest to the southeast. Exhibit 4 from the SCAQMD Riverside air monitoring station summarizes the wind patterns in the project area.

2.2 - Regulatory Setting

2.2.1 - Previous Environmental Assessments

As noted in Section 1, the project is located within the Centerpointe Business Park (CBP). The CBP included nine parcels, 8 proposed and 1 future industrial buildings. The Brodiaea Site is identified as the future industrial building as Pad 7. As part of the City of Moreno Valley's evaluation of the CBP under the California Environmental Quality Act, an Initial Study/Mitigated Negative Declaration (ISMND) was prepared that examined several potential environmental impacts including air quality impacts from the development of the CBP (City of Moreno Valley 2005). A previous health risk assessment (Mestre Greve Associates 2005) was prepared in support of the ISMND. Based on the results of the 2005 health risk analysis and the ISMND, truck traffic would be restricted from impacting nearby sensitive receptors, namely adjacent residences. With specific regards to the Brodiaea Site project, this implies that truck traffic will be directed away from Heacock Street with travel directed along Cactus Avenue to Interstate 215. In addition, the 2005 health risk analysis concluded that:

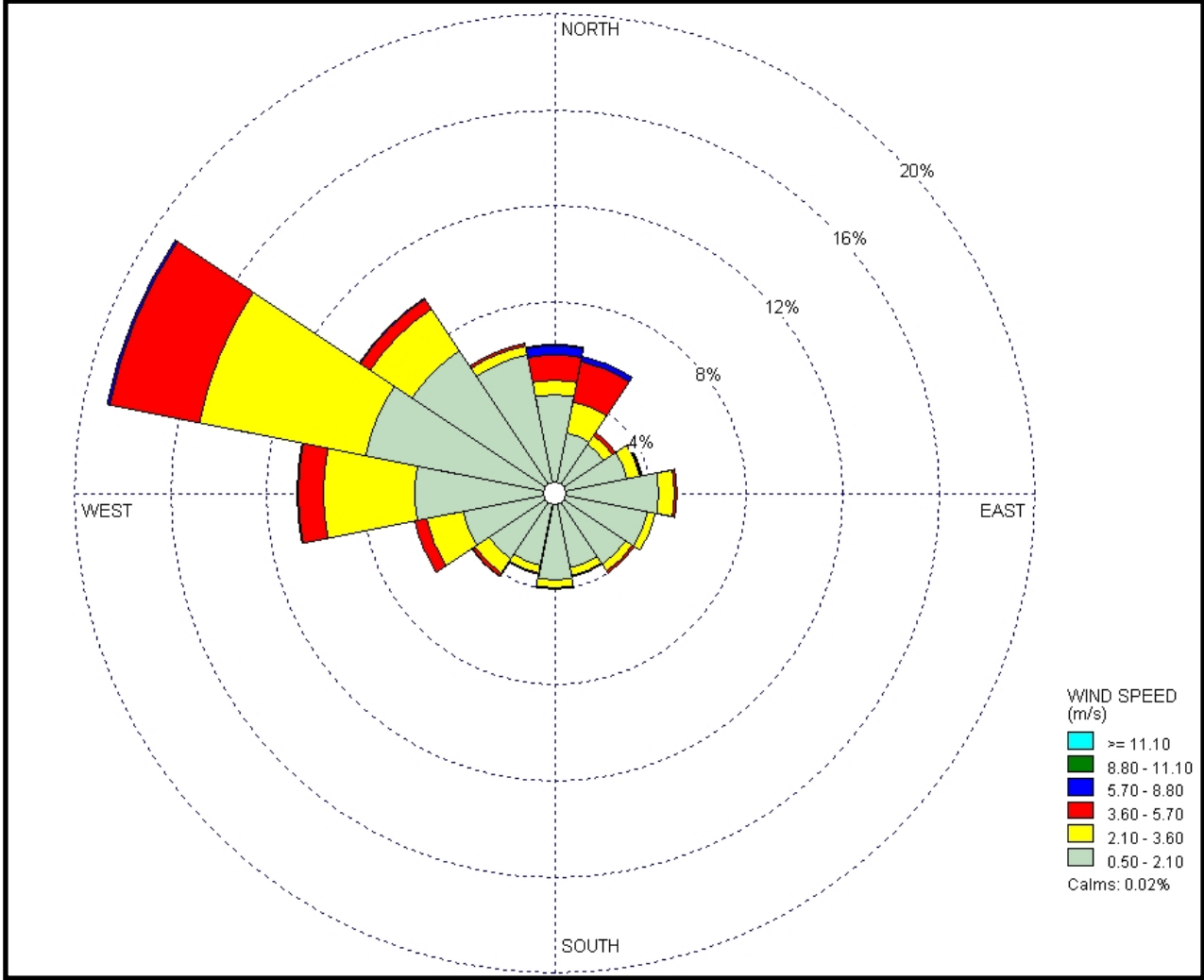
“residential areas in close proximity to the project (CBP) would not be exposed to diesel particulate matter where residents are subjected to increased cancer or non-cancer risks as a result of the project (CBP)”.

The present health risk analysis specifically examines the potential health impacts from the Brodiaea Site Project within the context of the ISMND and results of the 2005 Health Risk Analysis.

2.2.2 - Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur.

Therefore, rather than a cancer risk standard or threshold being expressed as an absolute level or concentration, cancer risk is expressed as a probability interpreted as the probability of an individual contracting cancer out of a population of 1 million people from exposures to one or more TACs. This contrasts with the criteria pollutants such as nitrogen dioxide and carbon monoxide for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.



Describes frequency of winds from a given direction
Source: SCAQMD

Exhibit 4 Wind Rose for SCAQMD Riverside Station

2.2.3 - Diesel Particulate Matter (DPM)

The California Air Resources Board (ARB) identified the diesel particulate matter (DPM) emissions from diesel-fueled engines as a toxic air contaminant in August 1998 under California's toxic air contaminant program (ARB 1998). In California, diesel engine exhaust has been identified as a carcinogen. Most researchers believe that diesel exhaust particles contribute the majority of the airborne cancer risk in California.

DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 40 percent of the statewide total, with an additional 57 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units (TRUs). Stationary sources, contributing about 3 percent of emissions, include shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction (except highway) manufacturers of asphalt, paving materials and blocks, and electrical generation.

DPM is a subset of PM_{10} —diesel particles are typically 10 microns and smaller. In a document published in 2002, the EPA noted that in 1998, DPM made up about 6 percent of the total PM_{10} inventory nationwide. The complex particles and gases that make up diesel exhaust have the physical properties of organic compounds that account for 80 percent of the total particulate matter mass consisting of hydrocarbons and their derivatives and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust. The chemical composition and particle sizes of DPM vary among different engine types (heavy-duty, light-duty), engine operating conditions (idling, accelerating, decelerating), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and engine year.

Some short-term (acute) health effects of diesel exhaust exposure include eye, nose, throat, and lung irritation, and exposure can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient PM pollution in urban environments. In a 2002 report from the Office of Environmental Health Hazard Assessment (OEHHA) titled "Health Effects of Diesel Exhaust Report," it was noted that numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2001 and 2003). The National Toxicology Program asserted that more serious, long-term health effects of diesel exhaust have demonstrated an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure in its 2005 Report on Carcinogens, Twelfth Edition (NTP 2012).

2.2.4 - Regulatory Programs

Diesel Risk Reduction Plan

The identification of diesel PM as a carcinogenic substance set into motion the development and adoption of the ARB's Diesel Risk Reduction Plan (ARB 2000). This plan recommends many control measures to reduce the risks associated with diesel PM and to achieve a goal of 75 percent reduction by 2010 and 85 percent reduction by 2020 from the risks estimated in the year 2000. These control measures include reductions on both on-road and off-road vehicles, off-road construction equipment, stationary and portable diesel engines, marine engines, railroad locomotive engines, and transportation refrigeration units. Based on these control measures, diesel PM emissions have declined since 2000 and are expected to decline even further into the future.

Low-Emission Vehicle Program

The ARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan (SIP). In 2012, ARB adopted the LEV III amendments to California's Low-Emission Vehicle (LEV) regulations. These amendments include more stringent emission standards for both criteria pollutants and greenhouse gases for new passenger vehicles (ARB 2012).

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others (ARB 2010, 2013b).

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than 5 consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with

finer up to \$10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

Health Risk Significance Thresholds

The SCAQMD has established the following project-level health risk thresholds for assessment under the California Environmental Quality Act (CEQA).

- Maximum Incremental Cancer Risk: 10 in 1 million at the nearest sensitive receptor or off-site worker; and
- Hazard Index (project increment) 1.0 or greater.

The project-level threshold measures the impact of emissions from a project on the nearest sensitive receptor (house, school, hospital, etc.).

Sensitive Receptors

Those individuals who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The SCAQMD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest sensitive receptors are existing residences located to the east of the project across Heacock Street.

SECTION 3: HEALTH RISK ASSUMPTIONS AND IMPACTS

3.1 - Modeling Guidance

The methodology applied in this assessment follows the South Coast Air Quality Management District (SCAQMD) “Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis” (SCAQMD 2003).

3.1.1 - Toxic Air Contaminants of Concern

The most important TAC emitted by the project with respect to health risk is diesel particulate matter (DPM) from the operation of diesel-fueled vehicles during operations. The ARB estimates that between 70 and 80 percent of the estimated airborne cancer risk within the State is due to DPM from all sources located within the State. Other TACs are also associated with the operation of gasoline vehicles and include pollutants such as benzene, 1, 3-butadiene, formaldehyde, acetaldehyde, ethyl benzene, and naphthalene.

3.1.2 - Air Dispersion Modeling Assumptions

The evaluation of health risk impacts determines the potential of the project to expose sensitive receptors to substantial pollutant concentrations. To evaluate the project’s health risk impacts, an air dispersion model (EPA model; AERMOD Version 15181) was used to simulate the movement of project-related pollutants through the air and compare the concentration of those pollutants with the applicable health risk thresholds established by the SCAQMD.

Terrain elevations were obtained for the project site using AERMAP, the AERMOD terrain data pre-processor. The rural dispersion option was used to describe the air dispersion in the local vicinity of the project. The meteorological data for the years 2008 through 2012 was obtained from the SCAQMD Riverside Air Monitoring Station. Table 1 summarizes the general AERMOD model assumptions applied in the air dispersion model assessment

Each emission source to be evaluated requires geometrical and emission release specifications for use in the air dispersion model. The emission source configurations applied in this assessment were assumed to be line volume sources to describe the vehicle travel both onsite within the building access areas, offsite along travel routes to the Interstate 215 and State Route 60, and within the loading dock areas on the west and south sides of the building as summarized in Table 2 below.

Table 1: General Modeling Assumptions

Feature	Assumption
Terrain processing	Complex terrain; elevations were obtained for the project site using the EPA AERMAP terrain data pre-processor
Emission source configuration	See Table 2 below.
Land Use	Urban
Coordinate System	Universal Transverse Mercator
Building downwash	Included in calculations; building was assumed to be 50 feet in height
Meteorological Data	SCAQMD Riverside meteorological Data for 2008-2012
Receptor height	0 meters
Source: see Appendix B	

Table 2: Summary of Emission Source Configurations

Emission Source Configuration	Assumption	Relevant Assumptions
On-site Diesel Truck Traffic	Line Sources	<ul style="list-style-type: none"> • See Table 3 for an inventory of truck operations • Stack release height: 6 feet • Vehicle Speed: 5 mph • Length of the line sources (distance from the facility entrance on Brodiaea Street to the loading docks along the west and south sides of the building) • Vehicle types: heavy-heavy duty and medium heavy duty diesel delivery trucks • Emission factors: ARB EMFAC2014 for South Coast Air Basin
On-site Diesel Truck Idling	Line sources located at the loading docks	<ul style="list-style-type: none"> • Stack release height: 12 feet • Stack release characteristics <ul style="list-style-type: none"> —Stack diameter: 0.3 feet —Stack velocity: 170 feet/sec —Stack temperature: 200°F • Idle time: 15 minutes per truck per day for medium heavy duty and heavy-heavy duty trucks • Vehicle type: heavy-heavy duty and medium heavy duty diesel delivery trucks • Emission factors: ARB EMFAC2014

Table 2 (cont.): Summary of Emission Source Configurations

Emission Source Configuration	Configuration	Relevant Assumptions
Off-site Traffic	Line Sources	<ul style="list-style-type: none"> Several travel links from the project to outlying areas were identified including Brodiaea Street, Gilbert Street, and Cactus Avenue to Interstate 210 and from the project along Heacock Street to State Route 60 Vehicle speeds: 25 mph for heavy duty trucks and 35 mph for worker vehicles
Facility Operations	Project	<ul style="list-style-type: none"> 24 hours per day/365 days per year

Source: see Appendix A for the emission details.

Exhibit 5 provides the locations of the various emission sources included in this analysis. Exhibit 6 provides the locations of the receptor network included in this analysis.

3.2 - Estimation of Project-Level Local Operational Toxics Air Contaminant Emissions and Impacts

The health risk analysis requires the estimation of several types of toxic air contaminants (TACs) that could pose health risks to the surrounding areas. These emissions result primarily from mobile sources. For the mobile sources, the following TACs were evaluated:

- Diesel particulate matter (DPM) emissions from diesel-fueled vehicles
- Total organic gas (TOG) emissions from the exhaust of gasoline-fueled vehicles
- Evaporative TOG from gasoline-fueled vehicles

3.2.1 - Estimation of Project's TAC Emissions

Mobile Sources

The project would involve the operation of motor vehicles consisting of delivery trucks and worker vehicles. The vehicle trip characteristics for the project are described in Table 3. The vehicle trip characteristics are based on a technical memorandum prepared by Transpogroup in October 2016 (Transpogroup 2016). Trip generation rates were derived from the Institute of Transportation Engineers, 9th Edition (ITE 2012) and the City of Fontana Truck Trip Generation Study (City of Fontana 2003). The ITE rates were derived for Land Use Code 150 (Warehousing) – 3.56 trips per thousand square feet of floor space. The split by vehicle class from the City of Fontana Trip Generation Study were representative of Light Industrial category: 80.3% passenger vehicles and 19.7% for trucks. Based on these rates, the project is expected to generate 356 total trips per day, split as 286 daily passenger car trips and 70 daily truck trips. The highest peak hour is estimated to be the PM peak hour

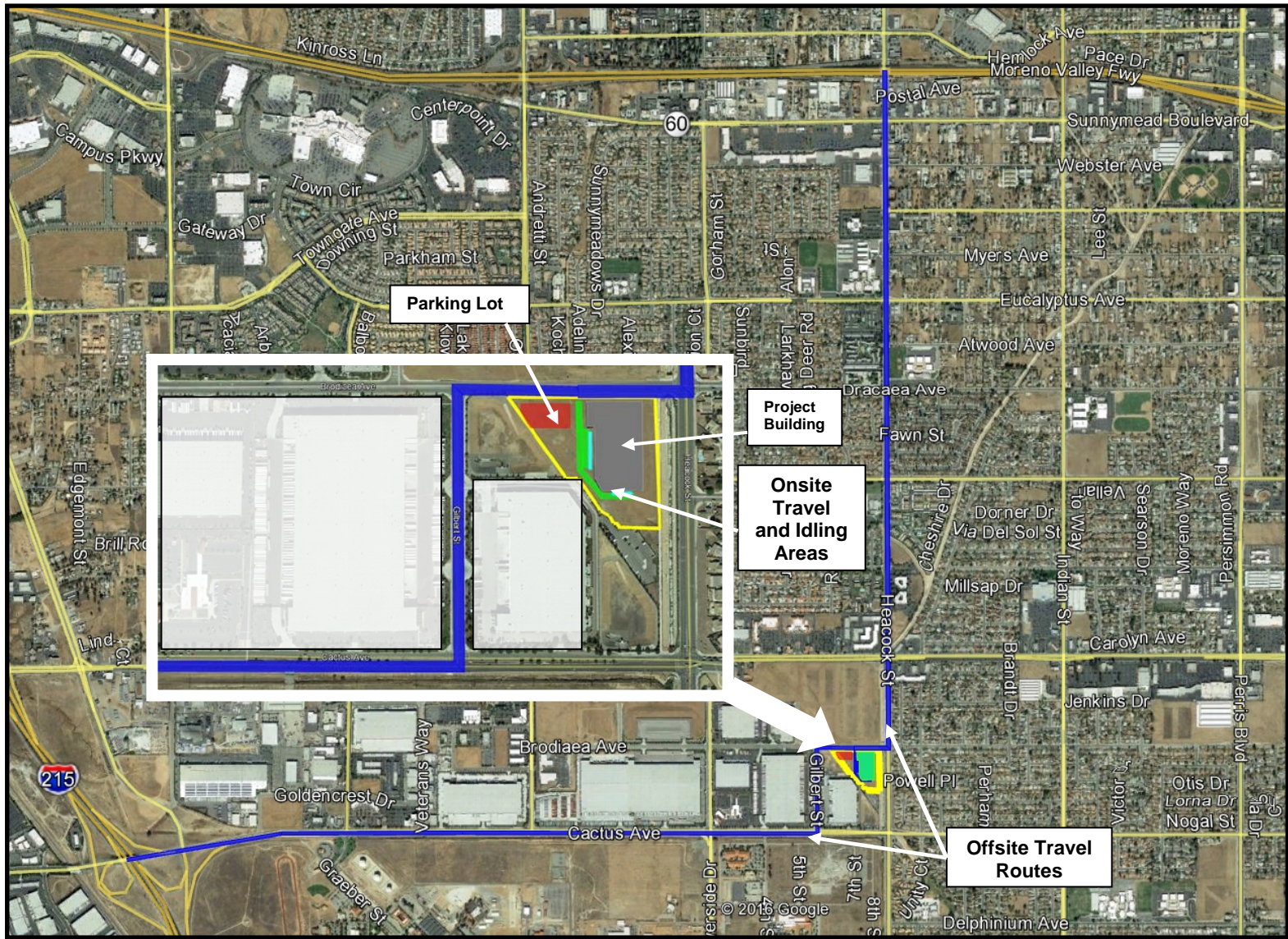
with the project expected to generate 32 trips per hour (trip rate of 0.32 trips per thousand square feet of building space).

Table 3: Motor Vehicle Trip Characteristics

Vehicle Class	Fleet Mix (%)	Total Daily Trips	Non-Diesel Daily Trips	Diesel Daily Trips
Light Duty Auto (LDA)	47.5	169	169	1
Light Duty Truck 1 (LDT1)	4.0	014	14	0
Light Duty Truck 2 (LDT2)	17.6	063	62	0
Medium Duty Truck (MDT)	11.2	140	39	1
<i>Subtotal</i>	<i>80.3</i>	<i>286</i>	<i>284</i>	<i>2</i>
Light Heavy Duty Truck 1 (LHDT1)	3.9	14	8	7
Light Heavy Duty Truck 2 (LHDT2)	1.3	4	2	2
Medium Heavy Duty Truck (MHDT)	4.5	16	2	14
Heavy Heavy Duty Truck (HHDT)	10.0	36	0	35
<i>Subtotal</i>	<i>19.7</i>	<i>70</i>	<i>12</i>	<i>58</i>
<i>Grand Total</i>	<i>100.0</i>	<i>356</i>	<i>296</i>	<i>60</i>
Note: Source: Transpogroup 2016 and EMFAC2014 for fleet mix for LDA, LDT, MDT, and LHDT, and Diesel/Non-diesel Split See Appendix A				

The project's mobile source TAC emissions were estimated using the ARB EMFAC2014 mobile source emission model for the South Coast Air basin and applying the vehicle speed and idling time assumptions as shown in Table 2 above.

The project was assumed to commence operation in 2018. The emission factors for DPM used in the health risk assessment are provided in Appendix A and were averaged over a 70-year and 40-year durations from 2018 to 2087 and 2018 to 2057, respectively to correspond to the 70-year exposure average and 40-year exposure durations for sensitive/residential and worker receptors. The need for average DPM emission estimates was done to account for the future reductions in DPM emissions forecasted by the EMFAC2014 model from motor vehicles, particularly heavy duty trucks as motor vehicles meet the mandated state mobile vehicle emission regulations. Note that the EMFAC2014 mobile source emission model does not provide emission factors beyond the year 2050. Therefore, DPM emissions for the years beyond 2050 (Residential: 2051 to 2087 and worker: 2051 to 2057) were set at the 2050 levels.



Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Exhibit 5 Locations of Operational Emission Sources

FEBRUARY 2017 | 5_sources

EIP/D SOLUTIONS, INC. • BRODIAEA SITE
HEALTH RISK ASSESSMENT REPORT

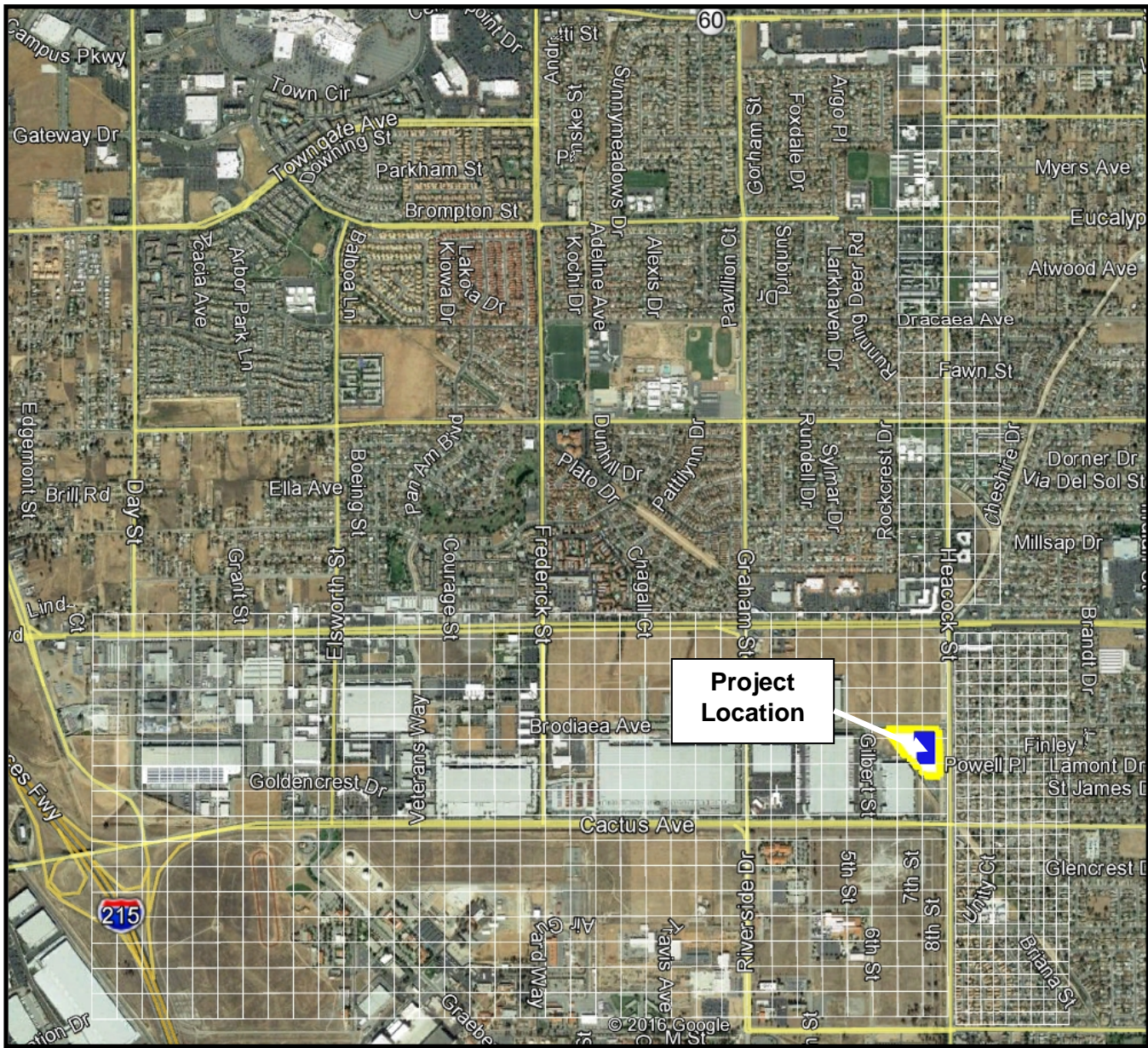


Exhibit 6 Receptor Locations

3.3 - Project-Level Health Risk Assessment Methodology

A health risk assessment (HRA) of toxic air contaminants is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a population. The State of California Office of Environmental Health Hazard Assessment (OEHHA) develops methods for conducting health risk assessments. As defined under the Air Toxics “Hot Spots” Information and Assessment Act of 1987 [“AB 2588” (Chapter 1252, Statutes of 1987), California Health and Safety Code Section 44306], “A health risk assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure” (OEHHA 1987).

The TACs emitted by the project that has the greatest potential to cause a health risk to the surrounding community is DPM from the operation of diesel-powered vehicles and the fire pump. Other TACs are associated with the emissions from gasoline-fueled vehicles were also included in this assessment.

3.3.1 - Estimation of Cancer Risks

Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). The following equations were used to calculate the potential excess lifetime cancer risk for the inhalation pathway is based on the guidance published by the SCAQMD (SCAQMD 2003).

$$\text{Risk}_{\text{inh}} = C_a \times \text{Inhalation Exposure Factor} \quad (\text{EQ-1})$$

Where:

Risk_{inh} = Cancer Risk; the incremental probability of an individual developing cancer as a result of inhalation exposure to a particular potential carcinogen (expressed as the probability of an individual developing cancer out of a population of 1 million people exposed to the carcinogen)

C_a = the calculated annual average air concentration of the TAC calculated by the air

Inhalation is the most important exposure pathway to impact human health from TACs and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = \text{CPF} \times \text{EF}_i \times \text{ED}_i / \text{AT} \quad (\text{EQ-2})$$

Where:

CPF = Inhalation cancer potency factor for the TAC; for DPM the CPF has a value of $1.1 \text{ (mg/kg-day)}^{-1}$

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time period over which exposure is averaged (days)

Equations 1 and 2 were then used to estimate cancer risks during the 70-year exposure and 40-year durations for sensitive/residential and worker receptors, respectively. Table 4 shows the SCAQMD-recommended parameters for the various cancer risk parameters shown in Equations 1 and 2 based on the type of receptor type.

Table 4: Exposure Assumptions for Cancer Risk—SCAQMD Guidance

Receptor	Exposure Frequency		Exposure Duration (years)	Daily Breathing Rate (DBR) (L/kg-day)	Cancer Potency Factor (mg/kg-day)
	Hours/day	Days/year			
Sensitive/Residential	24	350	70	302	1.1
Worker	24	250	40	149	1.1

Notes:
(L/kg-day) = liters per kilogram body weight per day
(mg/kg-day) [milligrams per kilogram per day
Source: SCAQMD 2003

Applying the exposure assumptions in Table 4 and Equations 1 and 2, the estimation of cancer risk can be simplified as follows for sensitive receptors and worker receptors:

$$\text{Cancer Risk}_{\text{Sensitive}} = C_{\text{DPM-70}} \times 318.5 \quad (\text{EQ-3})$$

$$\text{Cancer Risk}_{\text{Worker}} = C_{\text{DPM-40}} \times 64.1 \quad (\text{Eq-4})$$

Where:

$C_{\text{DPM-70}}$ = 70-year average DPM concentrations predicted by the air dispersion model

$C_{\text{DPM-40}}$ = 40-year average DPM concentrations predicted by the air dispersion model

It should be noted that exposures for separate subpopulations of sensitive receptors can be defined such as for school age children, adults, and non-school age children. However, the highest total risks are associated with the lifetime exposure of 70 years of age. Therefore, the HRA focused on this lifetime exposure duration for sensitive receptors.

Non-Cancer Health Risk Characterization*Chronic Non-Cancer Impacts*

Exposures to TACs such as DPM can also cause chronic (long-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system effects, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from DPM is expressed as a Hazard Index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the REL. A significant risk is defined by the SCAQMD as an HI of 1 or greater. When evaluating chronic non-cancer effects due to TAC exposures, a hazard quotient (HQ) is established for each individual TAC as follows and for each target organ¹ affected by the individual TAC:

$$HQ_i = C_{air}/REL_i \quad (EQ-5)$$

Where:

HQ_i = chronic hazard quotient for each TAC
 C_{air} = Annual average concentration of each TAC (µg/m³)
 REL = Chronic Reference Exposure Level (µg/m³)

To evaluate the potential for adverse non-cancer health effects from simultaneous exposure to multiple TACs, the HQs for all TACs that affect the same target organ are summed yielding an HI as follows:

$$HI_{CNCHI} = \sum HQ_i \quad (EQ-6)$$

Where:

HI_{CHI} = chronic hazard index for all TACs
 ΣHQ_i = sum of all chronic hazard quotients for each individual TAC affecting the same target organ

Chronic health effects were calculated based on annual average DPM concentrations from the operation of the project, since DPM is the most important TAC considered in this assessment. The California OEHHA has assigned a chronic non-cancer REL of 5 µg/m³ for DPM. DPM has effects on the respiratory system, which accounts for essentially all of the potential chronic non-cancer hazards from DPM. Therefore, the only HI calculated was for the respiratory system.

¹ A target organ is a biological organ(s) most adversely affected by exposure to a chemical substance and includes the respiratory system, cardiovascular system, eyes, nervous system, hematological system, immune system, reproductive system, developmental system, skin, and endocrine system

The form of Equation 6 for DPM used to estimate the chronic non-cancer hazard index becomes assuming DPM is the most important TAC:

$$HI_{\text{CNCHI-DPM}} = C_{\text{DPM}} / 5 \quad (\text{EQ-7})$$

Where:

$HI_{\text{CNCHI-DPM}}$ = the chronic non-cancer hazard index for DPM
 C_{DPM} = annual average air concentration of DPM estimated by the air dispersion model (assumed to be 2018, the opening year of the project)
 Chronic non-cancer reference exposure level for DPM is $5 \mu\text{g}/\text{m}^3$

Acute Non-Cancer Impacts

Exposures to toxics air contaminants can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. The California OEHHA has not defined a reference exposure level for DPM appropriate for estimating acute non-cancer hazards from DPM. Therefore, to estimate the potential acute non-cancer impacts from the project operation, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from the project's diesel and gasoline motor vehicles. For this purpose, use was made of emission source chemical speciation profiles for TOG that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles as shown in Table 5 and Table 6 based on the chemical source profiles developed by the ARB (ARB 2016). From this information, an estimate can be made of the maximum one-hour average concentration levels of the project's various TOG chemical species from which an acute non-cancer hazard index can be determined. Acute non-cancer health effects were calculated based on 1-hour maximum TOG concentrations from the project's diesel and gasoline emissions.

The acute non-cancer hazard index is calculated as follows.

$$HQ_i = C_{\text{air}} / \text{REL}_i \quad (\text{EQ-8})$$

Where:

HQ_i = acute hazard quotient for each TAC
 C_{air} = 1 hour maximum average concentration of each TAC ($\mu\text{g}/\text{m}^3$)
 REL = Acute Reference Exposure Level for each TAC ($\mu\text{g}/\text{m}^3$)

To evaluate the potential for adverse non-cancer health effects from simultaneous exposure to multiple TACs, the HQs for all TACs that affect the same target organ are summed yielding an HI as follows:

$$HI_{\text{AHI}} = \sum HQ_i \quad (\text{EQ-9})$$

Where:

HI_{CHI} = acute hazard index for all TACs

$\sum HQ_i$ = sum of all acute hazard quotients for each individual TAC affecting the same target organ

Table 5: Toxic Speciation Profile of TOG Due To Gasoline Tailpipe Emissions

TOG Compound ⁽¹⁾	ARB Gasoline TOG Speciation (%TOG) ⁽²⁾	Acute Non-Cancer REL ($\mu\text{g}/\text{m}^3$)	Unit Acute Non-Cancer Risk Weighted Factor ($\mu\text{g}/\text{m}^3$)
Acetaldehyde	0.28	470	5.96E-08
Acrolein	0.13	2.5	5.2e-04
Benzene	2.47	27	9.15E-04
1,3-Butadiene	0.53	660	8.03E-06
Formaldehyde	1.53	55	1.78E-04
Methanol	0.12	28,000	4.29E-06
Styrene	0.12	21,000	5.71E-08
Toluene	5.58	37,000	1.51E-06
M-Xylenes	3.45	22,000	1.56e-06
O-Xylene	1.20	22,000	5.45e-07
Total Hazard Index for Unit Air Concentration			1.70e-03
Acute Reference Exposure Level			581
Notes:			
⁽¹⁾ Based on the ARB TOG Speciation Profile Number 2108			
⁽²⁾ Only those TOG compounds for which an acute REL has been defined by the OEHHA have been included			
Source: ARB 2016, OEHHA 2016			

Table 6: Toxic Speciation Profile of TOG Due To Diesel Tailpipe Emissions

TOG Compound ^{(1),(2)}	ARB Diesel TOG Speciation (%TOG)	Acute Non-Cancer REL ($\mu\text{g}/\text{m}^3$)	Unit Acute Non-Cancer Risk Weighted Factor ($\mu\text{g}/\text{m}^3$)
Acetaldehyde	7.35	470	1.56E-04
Benzene	2.00	27	7.41E-04
1,3-Butadiene	0.19	660	2.88E-06
Formaldehyde	14.71	55	2.675E-03
Methanol	0.03	28,000	1.071E-08
Methyl Ethyl Ketone	1.48	13,000	1.138E-06
Styrene	0.06	21,000	2.857E-08
Toluene	1.47	37,000	3.973E-07
M-Xylenes	0.61	22,000	2.773E-07

Table 6 'cont			
O-Xylenes	0.34	22,000	1.545E-07
P-Xylene	0.19	22,000	4.545E-08
Total Hazard Index for Unit Air Concentration			3.58e-03
Acute Reference Exposure Level			280
Notes:			
⁽¹⁾ Based on the ARB TOG Speciation Profile Number 818			
⁽²⁾ Only those TOG compounds for which an acute REL has been defined by the OEHHA have been included			
Source: ARB 2016, OEHHA 2016			

Applying the information in Table 5 and Table 6 with Equations 7 and 8 yields the estimation of acute non-cancer hazard indices for gasoline and diesel vehicles. The estimation of the acute non-cancer hazard index was taken as the sum of the indices for gasoline and diesel. This is a conservative assumption given that the chemical components of the gasoline and diesel indices affect different target organs.

3.4 - Results of the Project-Level Health Risk Assessment

Table 7 summarizes the results of the project-level health risk assessment. The table presents the highest cancer risk and non-cancer hazards at the maximum impacted sensitive receptor. This receptor is located at the existing residences located to the east of the project across Heacock Street. As noted from this table, the project's operational TAC emissions do not result in an exceedance of the SCAQMD's health risk significance threshold for cancer of 10 in a million. The project's operational TAC emissions would result in non-cancer hazard indices of less 0.002 for both the chronic and acute non-cancer hazards and would, therefore, not exceed the SCAQMD's non-cancer hazard index significance threshold of 1.0.

Table 7: Summary of Project-Level Health Risk Assessment

Location ⁽¹⁾	Cancer Risk (per million)		Exceeds Significance Threshold?
	Maximum Lifetime Project Risk	Significance Threshold	
Maximum Impacted Sensitive Receptor	0.13	10	No
Maximum Impacted Worker Receptor	0.04	10	No
Location ⁽¹⁾	Chronic Non-Cancer Hazard Index		Exceeds Significance Threshold?
	Estimated Hazard Index	Significance Threshold	
Maximum Impacted Receptor	0.0002	1.0	No

Location ⁽¹⁾	Acute Non-Cancer Hazard Index		Exceeds Significance Threshold
	Estimated Hazard Index	Significance Threshold	
Maximum Impacted Receptor	0.002	1.0	No
Note: ⁽¹⁾ The maximum impacted receptor is located at an existing residence to the east of the project across Heacock Street. Source: see Appendix B.			

Note that as part of the preparation of the ISMND for the CBP, the previous health risk analysis of the CBP (Mestre Greve 2005) concluded that the operation of the CBP would not expose sensitive receptors to increased cancer or non-cancer risks that exceeded health significance thresholds recommended by the SCAQMD as a result of the operation of the CBP. The present health risk analysis further substantiates these results and does not identify any new health risk impact identified in either the ISMND or previous health risk analysis.

3.5 - Risk Assessment Uncertainty

There are substantial uncertainties involved in assessing the health risk of air pollutants. There are uncertainties in dispersion modeling, toxicological factors, and exposure assessment. The methodology described above for assessing health risks involving emission estimations, dispersion modeling, and toxicity risk factors have been developed to provide conservative results (in terms of over-predicting impacts). Some of the factors that result in conservative results are discussed below.

3.5.1 - Exposures Over 70-years

The SCAQMD recommends using the 70-year exposure duration for determining residential cancer risks. Although it is unlikely that people will reside at a single residence for 70 years, it is common that people will spend their entire lives in a major urban area. While residing in urban areas, it is very possible to be exposed to the emissions from other facilities. In order to help ensure that people do not accumulate an excess unacceptable cancer risk from cumulative exposure to stationary facilities at multiple residences, the SCAQMDD recommends the 70-year exposure duration for risk management decisions. However, it is important to note that a person who has resided in his or her current residence for less than 70 years will have a cancer risk less than what is calculated for a 70-year risk. Nonetheless, this assessment attempts to be conservative and provide a worst-case scenario for exposure.

SECTION 4: REFERENCES

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**Appendix A:
Health Risk Analysis Emissions Modeling Output**

Appendix A

Health Risk Analysis Emissions Modeling Output

70-year Average DPM Emissions	1
40-year Average DPM Emissions	10
DPM Emissions for 2018	19
TOG Emissions for 2018	27

**Brodiaea Site (Moreno Valley, CA)
Emission Assumptions**

2018 to 2087
DPM Emissions **70-year Exposure Duration**

Emission Factors

- 1) Vehicle Emissions
 - a) Truck and Auto Traffic
 - (1) EMFAC2014
 - (a) Calculations for SoCAB
 - (b) Truck Mix
 - Traffic Impact Study used to derive fleet mix
 - EMFAC2014 to derive the % of diesel truck vehicles
 - (d) Vehicle Travel Speed
 - Onsite Travel 5 mph
 - Offsite Travel 25 mph for heavy duty trucks
 - Offsite Travel 35 mph for cars and light trucks
 - (e) Truck Idle time: 15 minutes (truck idling only applies to LHDT1, LHDT2, MHDT, and HHDT diesel vehicles)
 - (f) Emission factors for DPM emissions
 - (g) Emissions calculated for 2018 to 2087

Traffic Allocation

- 1) Trip generation from the traffic study memorandum from Transogroup October 2016
- 2) Onsite travel emissions generated from diesel vehicles to loading dock areas according to the number of loading docks in each loading dock area
- 3) Onsite idling emissions generated only for diesel trucks and allocated according to the number of loading docks in each loading dock area

Emission Source Configuration

- 1) Offsite and onsite Vehicle traffic represented by a line source
- 2) Onsite idling represented as a kine source

Onsite Travel Links

Diesel Vehicles	Travel Distance (m)
Building 1 West	100
Building 1 South	189

Off site Travel Links

Diesel Vehicles	Travel Distance (m)
Project Entrance>Brodiaaea Ave>Gilbert St Cactus Ave>I215	3701

Other Input Parameters

Facility Operations for Warehouses (hr): 24

Brodiaea Site (Moreno Valley, CA)
Emissions Summary for
Travel and Idling

2018 to 2087
DPM

Onsite DSL Running Emissions

Location / AERMOD Source ID	Diesel Emissions (g/sec)
Building 1 - West Docks (ONWEST)	8.24E-07
Building 1 - South Docks (ONSOUTH)	4.45E-07
TOTAL	1.27E-06

Onsite Truck Idling - Diesel Only

Location	Diesel Emissions (g/sec)
Building 1 - West Docks (IDLE_WEST)	4.93E-06
Building 1 - South Docks (IDLE_SOUTH)	1.41E-06
TOTAL	6.33E-06

Offsite DSL Emissions / AERMOD Source ID	Diesel Emissions (g/sec)
Project to Interstate 215 (OFF2)	2.73E-05

Brodiaea Site (Moreno Valley, CA)

2018 to 2087

Vehicle Trip Allocation to Buildings

Building	Building Size Warehouse (sq-ft)
Building 1	99,978
Total	99978

Trip Generation

Trip Generation Rate 3.56 trips/TSF as per Traffic Study Memorandum from Transpogroup October 2016

Building	trips/day (Non-PCE)
Building 1	356
Total	356

Diesel Vehicle Allocation for Warehouse Building

	Transpogroup Vehicle Distribution	EMFAC2014 Vehicle Default	EMFAC2014 % Diesel	EMFAC2014 % GAS	Number of Daily Diesel Trips	Number of Daily GAS Trips	Total Number of Diesel+GAS Trips	% Total
LDA (Passenger Car)	80.30%	59.3%	0.9%	99.1%	2	168	169	47.6%
LDT1		4.9%	0.1%	99.9%	0	14	14	4.0%
LDT2		21.9%	0.2%	99.8%	0	62	63	17.6%
MDT		13.9%	1.5%	98.5%	1	39	40	11.2%
Subtotal		100.0%			2	284	286	
LHDT1 (2 axle truck)	5.20%	75.7%	44.3%	55.7%	6	8	14	3.9%
LHDT2		24.3%	61.3%	38.7%	3	2	5	1.3%
Subtotal		100.0%			9	10	19	
MHDT (3 axle truck)	4.50%		87.6%	12.4%	14	2	16	4.5%
HHDT (4+ axle truck)	10.00%		99.1%	0.9%	35	0	36	10.0%
	19.70%							
Total					60	295	356	100.0%

Vehicle Distribution taken from Transpogroup Traffic Memorandum October 2016.

Vehicle Default taken from EMFAC2014 for the SoCAB

% Diesel taken from EMFAC2014 for Riverside County

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site (Moreno Valley, CA)

Distribution of VMT in the South Coast Air Basin 2018

Auto	Daily DSL VMT	Daily GAS VMT	Total VMT	% Auto	% GAS	% DSL
2018 LDA	1855378	2.07E+08	2.09E+08	59.3%	99.1%	0.9%
2018 LDT1	18702	1.74E+07	1.74E+07	4.9%	99.9%	0.1%
2018 LDT2	126794	7.71E+07	7.72E+07	21.9%	99.8%	0.2%
2018 MDT	726780	4.84E+07	4.92E+07	13.9%	98.5%	1.5%
Subtotal	2727655	3.50E+08	3.53E+08	100.0%	99.2%	0.8%
Light Heavy Duty Truck						
2018 LHDT1	3142729.4	3943594	7086323	75.7%	55.7%	44.3%
2018 LHDT2	1396295.2	883276.3	2279572	24.3%	38.7%	61.3%
Subtotal	4539024.6	4826870	9365895	100.0%		
Heavy Duty Truck						
2018 T6	6685104.9	942543.5	7627648		12.4%	87.6%
2018 T7	10818544	94681.82	10913226		0.9%	99.1%

DPM

Location	Vehicle type	Number of Diesel Trips	% of Fleet
Brodiaea Site (Moreno Valley, CA)	LHDT1	6	10.7%
	LHDT2	3	4.7%
	MHDT	14	24.1%
	HHDT	35	60.5%
Total		58	100.0%

NOTE: % Fleet and % diesel vehicles derived from the project traffic memorandum from Transpogroup and EMFAC2014 for the SoCAB
 Vehicle trips derived from the project traffic memorandum from Transpogroup

Vehicle Trip Allocation - Diesel Vehicles

Vehicle trips are allocated to building loading docks according to the number of dock doors on the west and south sides of the building

Loading Dock Allocations:

- Building 1 - West 14 docks on west side
- Building 1 - South 4 docks on south side
- 18 Total

Total Trips to Building 1 - West 45
 Total Trips to Building 1 - South 13

Onsite Truck Travel Segments	Total Diesel Vehicle Trips	Number of Diesel Vehicle Trips Transiting to Building Dock Areas				
		LHDT1	LHDT2	MHDT	HHDT	
Building 1 - to west docks	45	5	2	11	27	45
Building 1 - to south docks	13	1	1	3	8	13
Total Number of Diesel Vehicle Trips	58	6	3	14	35	58

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site (Moreno Valley, CA)
Diesel Vehicle Emissions

DPM

2018 to 2087

Processes Modeled

- Diesel truck exhaust
- Diesel truck idling

Facility Operations:

Brodiaea (warehouse) 24 hrs/day, 52weeks/year

Onsite Roadway Links

DPM Emissions

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per day (in and out)	Link Length (m)	Link Length (mi)	Emissions Over Link (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Emissions for Each Link (g/sec)
Travel to Building 1 - West Docks	LHDT1	5	0.020	5	100	0.06	5.974E-03	1.32E-05	6.91E-08	8.24E-07
	LHDT2	5	0.004	2	100	0.06	5.588E-04	1.23E-06	6.47E-09	
	MHDT	5	0.071	11	100	0.06	4.830E-02	1.06E-04	5.59E-07	
	HHDT	5	0.010	27	100	0.06	1.636E-02	3.60E-05	1.89E-07	
Travel to Building 1 - South Docks	LHDT1	5	0.020	1	189	0.12	3.226E-03	7.11E-06	3.73E-08	4.45E-07
	LHDT2	5	0.004	1	189	0.12	3.017E-04	6.65E-07	3.49E-09	
	MHDT	5	0.071	3	189	0.12	2.608E-02	5.75E-05	3.02E-07	
	HHDT	5	0.010	8	189	0.12	8.832E-03	1.95E-05	1.02E-07	
TOTAL	LHDT1			6			9.200E-03	2.027E-05	1.065E-07	1.27E-06
	LHDT2			3			8.605E-04	1.895E-06	9.959E-09	
	MHDT			14			7.438E-02	1.638E-04	8.609E-07	
	HHDT			35			2.519E-02	5.548E-05	2.915E-07	
	Total			58			1.10E-01	2.41E-04	1.27E-06	

Diesel truck Idling Emissions

DPM Emissions

Idle Time (minutes)

15

Building/Location	Truck Type	Emission Factor (g/Idle-hour)	Idling Time (min)	# Vehicles	Emissions (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Idling Emissions by Dock Area (g/sec)
Idle at Building 1 - West	LHDT1	0.434	15	2	2.62E-01	5.77E-04	3.03E-06	4.93E-06
	LHDT2	0.499	15	1	1.34E-01	2.95E-04	1.55E-06	
	MHDT	0.013	15	5	1.74E-02	3.83E-05	2.01E-07	
	HHDT	0.004	15	14	1.24E-02	2.72E-05	1.43E-07	
Idle at Building 1 - South	LHDT1	0.434	15	1	7.48E-02	1.65E-04	8.66E-07	1.41E-06
	LHDT2	0.499	15	0	3.82E-02	8.42E-05	4.43E-07	
	MHDT	0.013	15	2	4.97E-03	1.09E-05	5.75E-08	
	HHDT	0.004	15	4	3.53E-03	7.78E-06	4.09E-08	
TOTAL Vehicles	LHDT1			3	3.37E-01	7.42E-04	3.90E-06	6.33E-06
	LHDT2			1	1.72E-01	3.79E-04	1.99E-06	
	MHDT			7	2.23E-02	4.92E-05	2.59E-07	
	HHDT			18	1.59E-02	3.50E-05	1.84E-07	
	Total			29	5.47E-01	1.21E-03	6.33E-06	

NOTES:

- Onsite diesel truck travel emissions as per CARB EMFAC2014 for SoCAB
- Onsite diesel truck Idle emissions as per CARB EMFAC20114 for Riverside County (SC)

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site (Moreno Valley, CA)

Offsite DSL Vehicle Travel Emissions

DPM 2018 to 2087

Total Number of Daily DSL Truck Trips

Vehicle Class	Daily DSL Trips	Daily DSL Trips (I215 to/from DRWY1)
LHDT1-DSL	6	6
LHDT2-DSL	3	3
MHDT-DSL	14	14
HHDT-DSL	35	35
Total	58	58

Travel Link DSL Vehicle Trips

Travel Link	Link Length (m)	LHDT1-DSL (trips/day)	LHDT2-DSL (trips/day)	MHDT-DSL (trips/day)	HHDT-DSL (trips/day)	Total (trips/day)
Project>Brodiaea Ave>Gilbert St>Cactus Ave>I215	3701	6	3	14	35	58

Emission Factors

Vehicle Class	Emission Factor @ 25 mph (g/mi)
LHDT1-DSL	0.015
LHDT2-DSL	0.003
MHDT-DSL	0.048
HHDT-DSL	0.007

Travel Link DSL Emissions

Travel Link	LHDT1-DSL (g/sec)	LHDT2-DSL (g/sec)	MHDT-DSL (g/sec)	HHDT-DSL (g/sec)	Total (g/sec)
Project>Brodiaea Ave>Gilbert St>Cactus Ave>I215	2.45E-06	2.24E-07	1.78E-05	6.81E-06	2.73E-05

EMFAC2014		South Coast Air Basin					Running Emissions (DPM as PM10 Exhaust)										Emission Factors in g/mi																			
Vehicle	Fuel	Speed (mph)	Running Emissions (DPM as PM10 Exhaust)										Emission Factors in g/mi																							
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	
LDA	DSL	5	0.0749	0.0641	0.0559	0.0487	0.0423	0.0360	0.0282	0.0234	0.0183	0.0135	0.0096	0.0070	0.0050	0.0043	0.0033	0.0030	0.0027	0.0025	0.00229	0.0021	0.002	0.0019	0.0018	0.0017	0.00169	0.00165	0.00162	0.0016	0.00157	0.0016	0.0015	0.00151	0.00151	0.00151
LDT1	DSL	5	0.5197	0.4840	0.4522	0.4273	0.3996	0.3682	0.3278	0.291	0.2563	0.1698	0.1210	0.0845	0.0603	0.0472	0.0370	0.0327	0.0285	0.0236	0.01997	0.0181	0.0172	0.01647	0.01571	0.01491	0.013987	0.01323	0.01256	0.0121	0.01175	0.0112	0.0108	0.0107	0.0107	
LHD1	DSL	5	0.0171	0.0154	0.0143	0.0135	0.0129	0.0123	0.0117	0.0112	0.0106	0.0098	0.0096	0.0095	0.0093	0.0092	0.0092	0.0091	0.0091	0.0091	0.00909	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091
LHD2	DSL	5	0.0864	0.0750	0.0675	0.0619	0.0474	0.0430	0.0390	0.0360	0.0329	0.0302	0.0278	0.0258	0.0241	0.0226	0.0213	0.0203	0.0195	0.0187	0.0180	0.01747	0.017	0.0166	0.01626	0.01597	0.0157	0.015571	0.01544	0.01534	0.01513	0.01519	0.0151	0.0151	0.0151	
MDV	DSL	5	0.0245	0.0221	0.0206	0.0187	0.0171	0.0150	0.0122	0.0107	0.0096	0.0077	0.0064	0.0054	0.0048	0.0043	0.0040	0.0037	0.0034	0.0032	0.00293	0.0027	0.0026	0.00243	0.0023	0.0022	0.002113	0.00205	0.00199	0.00191	0.00191	0.00191	0.00191	0.00191	0.00191	
T6	DSL	5	0.2205	0.1659	0.0619	0.0130	0.0119	0.0064	0.0064	0.0064	0.0063	0.0063	0.0062	0.0062	0.0062	0.0062	0.0061	0.0061	0.0060	0.0060	0.0060	0.00592	0.0059	0.0059	0.00583	0.00581	0.0058	0.005793	0.00577	0.00577	0.00578	0.00578	0.00578	0.00578	0.00578	0.00578
LDA	DSL	10	0.0569	0.0439	0.0389	0.0411	0.0387	0.0133	0.0133	0.0132	0.0130	0.0128	0.0126	0.0124	0.0119	0.0113	0.0111	0.0110	0.0110	0.0110	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111	0.0111
LDT1	DSL	10	0.3628	0.3409	0.3203	0.3028	0.2844	0.2618	0.2355	0.2161	0.1864	0.1253	0.0913	0.0654	0.0472	0.0374	0.0292	0.0261	0.0231	0.0193	0.01662	0.0154	0.0147	0.01413	0.01354	0.0128	0.012259	0.01173	0.01125	0.0109	0.01064	0.0102	0.0101	0.0099	0.0098	
LHD1	DSL	10	0.0143	0.0130	0.0122	0.0116	0.0112	0.0108	0.0104	0.0101	0.0096	0.0090	0.0088	0.0088	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086
MDV	DSL	10	0.0606	0.0561	0.0521	0.0487	0.0452	0.0419	0.0401	0.0371	0.0344	0.0319	0.0296	0.0275	0.0256	0.0241	0.0225	0.0212	0.0200	0.0189	0.01791	0.017	0.0162	0.01554	0.01493	0.0144	0.013959	0.01359	0.01323	0.0129	0.01262	0.0124	0.0121	0.0119	0.0116	
LDA	DSL	15	0.0152	0.0141	0.0133	0.0121	0.0112	0.0099	0.0083	0.0074	0.0067	0.0055	0.0048	0.0042	0.0038	0.0035	0.0032	0.0030	0.0027	0.0026	0.00238	0.0022	0.0021	0.00198	0.00188	0.0018	0.001733	0.00168	0.00163	0.0016	0.00157	0.00155	0.0015	0.0015	0.0015	
LDT1	DSL	15	0.1886	0.1424	0.0566	0.0116	0.0105	0.0057	0.0057	0.0057	0.0057	0.0056	0.0056	0.0055	0.0055	0.0055	0.0054	0.0054	0.0054	0.0054	0.0053	0.0053	0.0053	0.0053	0.00524	0.00522	0.0052	0.005198	0.00519	0.00519	0.0052	0.00518	0.0052	0.0052	0.0052	0.0052
LHD1	DSL	15	0.0444	0.0420	0.0373	0.0347	0.0324	0.0119	0.0118	0.0117	0.0115	0.0113	0.0109	0.0105	0.0095	0.0096	0.0094	0.0094	0.0093	0.0092	0.00909	0.00908	0.00907	0.00906	0.00905	0.00904	0.00903	0.00902	0.00901	0.00901	0.00901	0.00901	0.00901	0.00901	0.00901	0.00901
LDA	DSL	15	0.0429	0.0372	0.0328	0.0283	0.0248	0.0212	0.0169	0.0142	0.0113	0.0086	0.0064	0.0049	0.0037	0.0032	0.0026	0.0024	0.0022	0.0020	0.00185	0.0017	0.0016	0.00153	0.00146	0.0014	0.001369	0.00134	0.00131	0.0013	0.00128	0.00128	0.00128	0.00128	0.00128	
LDT2	DSL	15	0.2654	0.2500	0.2352	0.2233	0.2101	0.1937	0.1746	0.1606	0.1385	0.0938	0.0689	0.0497	0.0366	0.0286	0.0229	0.0207	0.0184	0.0156	0.01352	0.0126	0.0121	0.01167	0.01125	0.0107	0.010299	0.00989	0.00953	0.0093	0.0091	0.0088	0.0086	0.0085	0.0085	
LHD2	DSL	15	0.0114	0.0106	0.0100	0.0096	0.0093	0.0091	0.0088	0.0085	0.0082	0.0078	0.0077	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075
LDA	DSL	20	0.0332	0.0291	0.0257	0.0221	0.0194	0.0166	0.0132	0.0111	0.0089	0.0068	0.0051	0.0040	0.0031	0.0027	0.0022	0.0020	0.0019	0.0017	0.00157	0.0015	0.0014	0.0013	0.00124	0.0012	0.001165	0.00114	0.00112	0.0011	0.00109	0.0011	0.0011	0.0011	0.0011	
LDT1	DSL	20	0.2026	0.1910	0.1787	0.1702	0.1601	0.1476	0.1333	0.1227	0.1059	0.0718	0.0530	0.0384	0.0284	0.0223	0.0180	0.0163	0.0146	0.0125	0.0112	0.0102	0.0098	0.00954	0.00923	0.0088	0.008515	0.00821	0.00794	0.0078	0.00763	0.0074	0.0072	0.0072	0.0072	
LHD1	DSL	20	0.0346	0.0324	0.0304	0.0287	0.0269	0.0252	0.0241	0.0226	0.0212	0.0198	0.0186	0.0175	0.0165	0.0157	0.0149	0.0141	0.0134	0.0128	0.01226	0.0118	0.0113	0.01088	0.01053	0.0102	0.009955	0.00974	0.00953	0.0093	0.00917	0.009	0.0089	0.0087	0.0086	
MDV	DSL	20	0.0279	0.0258	0.0240	0.0225	0.0211	0.0198	0.0189	0.0178	0.0169	0.0160	0.0153	0.0147	0.0141	0.0137	0.0132	0.0128	0.0125	0.0121	0.01187	0.0116	0.0114	0.01121	0.01105	0.0109	0.010822	0.01075	0.01069	0.0106	0.0106	0.0106	0.0105	0.0105	0.0105	
LDA	DSL	20	0.0141	0.0133	0.0125	0.0119	0.0112	0.0099	0.0083	0.0074	0.0067	0.0055	0.0048	0.0042	0.0038	0.0035	0.0032	0.0030	0.0027	0.0026	0.00238	0.0022	0.0021	0.00198	0.00188	0.0018	0.001733	0.00168	0.00163	0.0016	0.00157	0.00155	0.0015	0.0015	0.0015	
LDT2	DSL	20	0.0441	0.0402	0.0265	0.0206	0.0205	0.0075	0.0076	0.0076	0.0075	0.0075	0.0074	0.0073	0.0073	0.0072	0.0072	0.0071	0.0071	0.0070	0.00699	0.0069	0.0069	0.00685	0.00685	0.00684	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683
LDA	DSL	25	0.0257	0.0226	0.0200	0.0173	0.0152	0.0130	0.0105	0.0088	0.0071	0.0055	0.0042	0.0033	0.0026	0.0023	0.0019	0.0017	0.0016	0.0014	0.00133	0.0012	0.0011	0.00111	0.00106	0.001	0.000996	0.00097	0.00096	0.0009	0.00093	0.0009	0.0009	0.0009	0.0009	0.0009
LDT1	DSL	25	0.1609	0.1513	0.1420	0.1343	0.1262	0.1161	0.1050	0.0964	0.0832	0.0563	0.0413	0.0299	0.0222	0.0176	0.0143	0.0129	0.0117	0.0101	0.00891	0.0084	0.0081	0.00785	0.00762	0.0073	0.007086	0.00686	0.00666	0.0065	0.00641	0.00625	0.0061	0.0061	0.0061	0.0061
LHD1	DSL	25	0.0076	0.0072	0.0068	0.0066	0.0064	0.0063	0.0062	0.0060	0.0059	0.0056	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0054	0.0054	0.00545	0.0054	0.0054	0.0054	0.0054	0.0054	0.00545	0.00547	0.00547	0.00547	0.00547	0.00547	0.00547	0.00547	0.00547	0.00547
LHD2	DSL	25	0.0233	0.0216	0.0202	0.0189	0.0177	0.0167	0.0158	0.0149	0.0142	0.0135	0.0129	0.0124	0.0120	0.0116	0.0112	0.0109	0.0106	0.0104	0.0104	0.0099	0.0098	0.0096	0.00947	0.0094	0.00937	0.009275	0.00921	0.0091	0.00909	0.00909	0.00909	0.00909	0.00909	0.00909
MDV	DSL	25	0.0099	0.0093	0.0088	0.0080	0.0074	0.0066	0.0056	0.0051	0.0046	0.0039	0.0034	0.0030	0.0027	0.0025	0.0023	0.0021	0.0020	0.0019	0.00173	0.0016	0.0015	0.00144	0.00137	0.0013	0.001264	0.00122	0.00119	0.00115	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111
T6	DSL	25	0.0894	0.0728	0.0423	0.0076	0.0070	0.0038	0.0038	0.0039	0.0039	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038	0.0037	0.0037	0.0037	0.00369	0.0037	0.0037	0.00365	0.00364	0.0036	0.003622	0.00362	0.00361	0.0036	0.00361	0.0036	0.0036	0.0036	0.0036	0.0036
LDA	DSL	30	0.0302	0.0278	0.0230	0.0206	0.0182	0.0078	0.0078	0.0077	0.0076	0.0075	0.0074	0.0073	0.0072	0.0071	0.0070	0.0069	0.0068	0.0068	0.00674	0.0067	0.0067	0.00669	0.00669	0.00667	0.006681	0.00668	0.00667	0.00667	0.00667	0.00667	0.00667	0.00667	0.00667	0.00667
LDT1	DSL	30	0.0209	0.0184	0.0163	0.0142	0.0124	0.0107	0.0086	0.0073	0.0059	0.0046	0.0035	0.0028	0.0022	0.0020	0.0017	0.00																		

Idling Emissions

EMFAC20014 Diesel PM10 Idling Emissions (Riverside County)

	LHDT1 (g/hr)	LHDT2 (g/hr)	MHDT (g/hr)	HHDT (g/hr)
2018	0.792	0.778	0.319	0.033
2019	0.786	0.772	0.265	0.029
2020	0.777	0.762	0.152	0.016
2021	0.765	0.749	0.019	0.014
2022	0.749	0.731	0.016	0.013
2023	0.732	0.713	0.007	0.008
2024	0.714	0.694	0.006	0.007
2025	0.695	0.675	0.005	0.007
2026	0.675	0.655	0.005	0.006
2027	0.653	0.636	0.004	0.006
2028	0.631	0.617	0.004	0.005
2029	0.608	0.599	0.003	0.005
2030	0.585	0.581	0.003	0.004
2031	0.561	0.564	0.003	0.004
2032	0.541	0.549	0.002	0.003
2033	0.522	0.535	0.002	0.003
2034	0.504	0.522	0.002	0.003
2035	0.486	0.509	0.002	0.002
2036	0.470	0.499	0.002	0.002
2037	0.455	0.489	0.002	0.002
2038	0.441	0.481	0.002	0.002
2039	0.428	0.473	0.002	0.002
2040	0.416	0.467	0.002	0.002
2041	0.406	0.462	0.002	0.002
2042	0.396	0.458	0.002	0.002
2043	0.388	0.454	0.001	0.002
2044	0.380	0.451	0.001	0.002
2045	0.373	0.449	0.001	0.002
2046	0.366	0.447	0.001	0.002
2047	0.360	0.446	0.001	0.002
2048	0.353	0.445	0.001	0.002
2049	0.348	0.444	0.001	0.002
2050	0.342	0.443	0.001	0.002
70-year Average 2018-2087	0.434	0.499	0.013	0.004

**Brodiaea Site Project (Moreno Valley, CA)
Emission Assumptions**

2018 to 2057 **40-year Exposure Duration**
DPM Emissions

Emission Factors

- 1) Vehicle Emissions
 - a) Truck and Auto Traffic
 - (1) EMFAC2014
 - (a) Calculations for SoCAB
 - (b) Truck Mix
 - Traffic Memorandum from Transpogroup used to derive fleet mix
 - EMFAC2014 to derive the % of diesel truck vehicles
 - (d) Vehicle Travel Speed
 - Onsite Travel 5 mph
 - Offsite Travel 25 mph for heavy duty trucks
 - Offsite Travel 35 mph for cars and light trucks
 - (e) Truck Idle time: 15 minutes (truck idling only applies to LHDT1, LHDT2, MHDT, and HHDT diesel vehicles)
 - (f) Emission factors for DPM emissions
 - (g) Emissions calculated for 2018 to 2087

Traffic Allocation

- 1) Trip generation from the traffic study memorandum from Transogroup October 2016
- 2) Onsite travel emssions generated from diesel vehicles to loading dock areas according to the number of loading docks in each loading dock area
- 3) Onsite idling emissions generated only for diesel trucks and allocated accodding to the number of loading docks in each loading dock area

Emission Source Configuration

- 1) Offsite and onsite Vehicle traffic represented by a line source
- 2) Onsite idling represented as a kine source

Onsite Travel Links

Diesel Vehicles	Travel Distance (m)
Building 1 West	100
Building 1 South	189

Off site Travel Links

Diesel Vehicles	Travel Distance (m)
Project Entrance>Brodiaea Ave>Gilbert St Cactus Ave>I215	3701

Other Input Parameters

Facility Operations for Warehouses (hr): 24

Brodiaea Site Project (Moreno Valley, CA)
Emissions Summary for
Travel and Idling

2018 to 2057
DPM

Onsite DSL Running Emissions

Location / AERMOD Source ID	Diesel Emissions (g/sec)
Building 1 - West Docks (ONWEST)	1.10E-06
Building 1 - South Docks (ONSOUTH)	5.92E-07
Total	1.69E-06

Onsite Truck Idling - Diesel Only

Location	Diesel Emissions (g/sec)
Building 1 - West Docks (IDLE_WEST)	5.73E-06
Building 1 - South Docks (IDLE_SOUTH)	1.64E-06
TOTAL	7.37E-06

Offsite DSL Emissions / AERMOD Source ID	Diesel Emissions (g/sec)
Project to Interstate 215 (OFF2)	3.45E-05

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)
Vehicle Trip Allocation to Buildings

2018 to 2057

Building	Building Size Warehouse (sq-ft)
Building 1	99,978
Total	99,978

Trip Generation

Trip Generation Rate 3.56 trips/TSF as per Traffic Study Memorandum from Transpogroup October 2016

Building	trips/day (Non-PCE)
Building 1	356
Total	356

Diesel Vehicle Allocation for Warehouse Building

	Transpogroup Vehicle Distribution	EMFAC2014 Vehicle Default	EMFAC2014 % Diesel	EMFAC2014 % GAS	Number of Daily Diesel Trips	Number of Daily GAS Trips	Total Number of Diesel+GAS Trips	% Total
LDA (Passenger Car)	80.30%	59.3%	0.9%	99.1%	2	168	169	47.6%
LDT1		4.9%	0.1%	99.9%	0	14	14	4.0%
LDT2		21.9%	0.2%	99.8%	0	62	63	17.6%
MDT		13.9%	1.5%	98.5%	1	39	40	11.2%
Subtotal		100.0%			2	284	286	
LHDT1 (2 axle truck)	5.20%	75.7%	44.3%	55.7%	6	8	14	3.9%
LHDT2		24.3%	61.3%	38.7%	3	2	5	1.3%
Subtotal		100.0%			9	10	19	
MHDT (3 axle truck)	4.50%		87.6%	12.4%	14	2	16	4.5%
HHDT (4+ axle truck)	10.00%		99.1%	0.9%	35	0	36	10.0%
	19.70%							
Total					60	295	356	100.0%

Vehicle Distribution taken from Transpogroup Traffic Memorandum October 2016.

Vehicle Default taken from EMFAC2014 for the SoCAB

% Diesel taken from EMFAC2014 for Riverside County

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site (Moreno Valley, CA)

Distribution of VMT in the South Coast Air Basin 2018

Auto	Daily DSL VMT	Daily GAS VMT	Total VMT	% Auto	% GAS	% DSL
2018 LDA	1855378	2.07E+08	2.09E+08	59.3%	99.1%	0.9%
2018 LDT1	18701.99	17356142	17374844	4.9%	99.9%	0.1%
2018 LDT2	126794.4	77072757	77199552	21.9%	99.8%	0.2%
2018 MDT	726780.4	48439049	49165829	13.9%	98.5%	1.5%
Subtotal	2727655	3.5E+08	3.53E+08	100.0%	99.2%	0.8%
Light Heavy Duty Truck						
2018 LHDT1	3142729	3943594	7086323	75.7%	55.7%	44.3%
2018 LHDT2	1396295	883276.3	2279572	24.3%	38.7%	61.3%
Subtotal	4539025	4826870	9365895	100.0%		
Heavy Duty Truck						
2018 T6	6685105	942543.5	7627648		12.4%	87.6%
2018 T7	10818544	94681.82	10913226		0.9%	99.1%



Location	Vehicle type	Number of Diesel Trips	% of Fleet
Brodiaea Site Project (Moreno Valley, CA)	LHDT1	6	10.7%
	LHDT2	3	4.7%
	MHDT	14	24.1%
	HHDT	35	60.5%
Total		58	100.0%

NOTE: % Fleet and % diesel vehicles derived from the project traffic memorandum from Transpogroup and EMFAC2014 for the SoCAB
 Vehicle trips derived from the project traffic memorandum from Transpogroup



Vehicle Trip Allocation - Diesel Vehicles

Vehicle trips are allocated to building loading docks according to the number of dock doors on the west and south sides of the building

Loading Dock Allocations:

Building 1 - West 14 docks on west side
 Building 1 - South 4 docks on south side
 18 Total

Total Trips to Building 1 - West 45
 Total Trips to Building 1 - South 13

Onsite Truck Travel Segments	Total Diesel Vehicle Trips	Number of Diesel Vehicle Trips Transiting to Building Dock Areas				
		LHDT1	LHDT2	MHDT	HHDT	
Building 1 - to west docks	45	5	2	11	27	45
Building 1 - to south docks	13	1	1	3	8	13
Total Number of Diesel Vehicle Trips	58	6	3	14	35	58



Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)
Diesel Vehicle Emissions

2018 to 2057

DPM

Processes Modeled

- Diesel truck exhaust
- Diesel truck idling

Facility Operations:

Brodiaea (warehouse) 24 hrs/day, 52weeks/year

Onsite Roadway Links

DPM Emissions

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per day (in and out)	Link Length (m)	Link Length (mi)	Emissions Over Link (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Emissions for Each Link (g/sec)
Travel to Building 1 - West Docks	LHDT1	5	0.024	5	100	0.06	7.067E-03	1.56E-05	8.18E-08	1.10E-06
	LHDT2	5	0.006	2	100	0.06	7.953E-04	1.75E-06	9.20E-09	
	MHDT	5	0.100	11	100	0.06	6.764E-02	1.49E-04	7.83E-07	
	HHDT	5	0.011	27	100	0.06	1.922E-02	4.23E-05	2.22E-07	
Travel to Building 1 - South Docks	LHDT1	5	0.024	1	189	0.12	3.816E-03	8.41E-06	4.42E-08	5.92E-07
	LHDT2	5	0.006	1	189	0.12	4.295E-04	9.46E-07	4.97E-09	
	MHDT	5	0.100	3	189	0.12	3.652E-02	8.05E-05	4.23E-07	
	HHDT	5	0.011	8	189	0.12	1.038E-02	2.29E-05	1.20E-07	
TOTAL	LHDT1			6			1.088E-02	2.397E-05	1.260E-07	1.69E-06
	LHDT2			3			1.225E-03	2.698E-06	1.418E-08	
	MHDT			14			1.042E-01	2.294E-04	1.206E-06	
	HHDT			35			2.960E-02	6.519E-05	3.425E-07	
	Total			58			1.46E-01	3.21E-04	1.69E-06	

Diesel truck Idling Emissions

DPM Emissions

Idle Time (minutes)

15

Building/Location	Truck Type	Emission Factor (g/Idle-hour)	Idling Time (min)	# Vehicles	Emissions (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Idling Emissions by Dock Area (g/sec)
Idle at Building 1 - West	LHDT1	0.502	15	2	3.03E-01	6.68E-04	3.51E-06	5.73E-06
	LHDT2	0.541	15	1	1.45E-01	3.20E-04	1.68E-06	
	MHDT	0.021	15	5	2.90E-02	6.39E-05	3.36E-07	
	HHDT	0.005	15	14	1.77E-02	3.90E-05	2.05E-07	
Idle at Building 1 - South	LHDT1	0.502	15	1	8.67E-02	1.91E-04	1.00E-06	1.64E-06
	LHDT2	0.541	15	0	4.15E-02	9.14E-05	4.80E-07	
	MHDT	0.021	15	2	8.29E-03	1.83E-05	9.60E-08	
	HHDT	0.005	15	4	5.06E-03	1.11E-05	5.85E-08	
TOTAL Vehicles	LHDT1			3	3.90E-01	8.59E-04	4.51E-06	7.37E-06
	LHDT2			1	1.87E-01	4.11E-04	2.16E-06	
	MHDT			7	3.73E-02	8.22E-05	4.32E-07	
	HHDT			18	2.27E-02	5.01E-05	2.63E-07	
	Total			29	6.37E-01	1.40E-03	7.37E-06	

NOTES:

- Onsite diesel truck travel emissions as per CARB EMFAC2014 for SoCAB
- Onsite diesel truck Idle emissions as per CARB EMFAC20114 for Riverside County (SC)

Offsite DSL Vehicle Travel Emissions

DPM 2018 to 2057

Total Number of Daily DSL Truck Trips

Vehicle Class	Daily DSL Trips	Daily DSL Trips (I215 to/from DRWY1)	
LHDT1-DSL	6	6	
LHDT2-DSL	3	3	
MHDT-DSL	14	14	
HHDT-DSL	35	35	
Total	58	58	

Travel Link DSL Vehicle Trips

Travel Link	Link Length (m)	LHDT1-DSL (trips/day)	LHDT2-DSL (trips/day)	MHDT-DSL (trips/day)	HHDT-DSL (trips/day)	Total (trips/day)
Project Entrance>Brodaiea St>Gilbert>Cactus>I215	3701	6	3	14	35	58

Emission Factors

Vehicle Class	Emission Factor @ 25 mph (g/mi)
LHDT1-DSL	0.017
LHDT2-DSL	0.004
MHDT-DSL	0.063
HHDT-DSL	0.008

Travel Link DSL Emissions

Operations 24 hours/day

Travel Link	LHDT1-DSL (g/sec)	LHDT2-DSL (g/sec)	MHDT-DSL (g/sec)	HHDT-DSL (g/sec)	Total (g/sec)
Project Entrance>Brodaiea St>Gilbert>Cactus>I215	2.76E-06	3.09E-07	2.35E-05	7.93E-06	3.45E-05

EMFAC2014 South Coast Air Basin		Running Emissions DPM (as PM10 Exhaust)										Emission Factors in g/mi																									
Vehicle	Fuel	Speed (mph)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050		
LDA	DSL	5	0.0749	0.0641	0.0559	0.0487	0.0423	0.0360	0.0282	0.0234	0.0183	0.0135	0.0096	0.0070	0.0050	0.0043	0.0033	0.0030	0.0027	0.0025	0.00229	0.0021	0.002	0.0019	0.0018	0.0017	0.001689	0.00165	0.00162	0.0016	0.00157	0.0016	0.0015	0.0015	0.0015	0.0015	
LDA	DSL	5	0.1597	0.4840	0.4522	0.4273	0.3996	0.3662	0.3278	0.2991	0.2563	0.1698	0.1210	0.0845	0.0603	0.0472	0.0370	0.0327	0.0285	0.0236	0.01997	0.0181	0.0172	0.0167	0.0164	0.01571	0.0147	0.013987	0.01323	0.01266	0.0121	0.01175	0.0112	0.0108	0.0107	0.0107	
LDA	DSL	5	0.0171	0.0154	0.0143	0.0135	0.0129	0.0123	0.0117	0.0112	0.0106	0.0098	0.0096	0.0095	0.0093	0.0092	0.0092	0.0092	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	0.0091	
LHD1	DSL	5	0.0854	0.0720	0.0659	0.0565	0.0487	0.0419	0.0341	0.0287	0.0244	0.044	0.0407	0.0374	0.0344	0.0287	0.0266	0.0248	0.0232	0.0218	0.02053	0.0194	0.0184	0.01747	0.0167	0.016	0.015464	0.015	0.014544	0.0141	0.01376	0.0134	0.0131	0.0128	0.0125	0.0125	
LHD2	DSL	5	0.0646	0.0575	0.0519	0.0474	0.0430	0.0390	0.0360	0.0329	0.0302	0.0278	0.0258	0.0241	0.0226	0.0213	0.0203	0.0195	0.0187	0.0180	0.01747	0.017	0.0166	0.01625	0.01597	0.0157	0.015571	0.01544	0.01534	0.0153	0.01519	0.0151	0.0151	0.0151	0.0151	0.0151	
MDV	DSL	5	0.0245	0.0221	0.0206	0.0187	0.0171	0.0150	0.0122	0.0107	0.0096	0.0077	0.0064	0.0054	0.0048	0.0043	0.0040	0.0037	0.0034	0.0032	0.00293	0.0027	0.0026	0.00243	0.0023	0.0022	0.00213	0.00205	0.00199	0.0019	0.00191	0.0019	0.0019	0.0018	0.0018	0.0018	
MDV	DSL	5	0.2205	0.1659	0.0619	0.0130	0.0119	0.0084	0.0064	0.0064	0.0063	0.0063	0.0062	0.0062	0.0061	0.0061	0.0060	0.0060	0.0060	0.0059	0.00583	0.00581	0.0058	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	0.00577	
T7	DSL	5	0.0500	0.0482	0.0439	0.0411	0.0387	0.0133	0.0133	0.0132	0.0130	0.0128	0.0126	0.0124	0.0121	0.0119	0.0117	0.0116	0.0114	0.0113	0.0112	0.0111	0.0111	0.01107	0.01106	0.011	0.011041	0.01104	0.01103	0.011	0.01102	0.011	0.011	0.011	0.011	0.011	0.011
LDA	DSL	10	0.0569	0.0490	0.0430	0.0368	0.0321	0.0274	0.0213	0.0178	0.0141	0.0106	0.0076	0.0058	0.0043	0.0038	0.0030	0.0028	0.0025	0.0023	0.00213	0.002	0.0019	0.00176	0.00168	0.0016	0.001571	0.00154	0.00151	0.0015	0.00147	0.0015	0.0014	0.0014	0.0014	0.0014	0.0014
LDT1	DSL	10	0.3628	0.3409	0.3203	0.3028	0.2844	0.2618	0.2355	0.2161	0.1864	0.1253	0.0913	0.0654	0.0472	0.0374	0.0327	0.0285	0.0236	0.01997	0.0181	0.0172	0.0167	0.0164	0.01571	0.0147	0.013987	0.01323	0.01266	0.0121	0.01175	0.0112	0.0108	0.0107	0.0107	0.0107	
LDT2	DSL	10	0.143	0.130	0.1222	0.1116	0.1018	0.0104	0.0101	0.0096	0.0090	0.0088	0.0088	0.0088	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086
LHD1	DSL	10	0.0606	0.0561	0.0521	0.0487	0.0452	0.0419	0.0401	0.0371	0.0344	0.0319	0.0296	0.0275	0.0256	0.0241	0.0225	0.0212	0.0200	0.0189	0.01791	0.017	0.0162	0.01554	0.01493	0.0144	0.013959	0.01359	0.01323	0.0129	0.01262	0.0124	0.0121	0.0119	0.0116	0.0116	
LHD2	DSL	10	0.0472	0.0427	0.0391	0.0361	0.0333	0.0307	0.0291	0.0270	0.0252	0.0236	0.0222	0.0210	0.0200	0.0192	0.0184	0.0178	0.0172	0.0166	0.01617	0.0158	0.0154	0.01515	0.01491	0.0147	0.014572	0.01446	0.01437	0.0143	0.01425	0.0142	0.0142	0.0141	0.0141	0.0141	
MDV	DSL	10	0.0152	0.0141	0.0133	0.0121	0.0112	0.0099	0.0083	0.0074	0.0067	0.0055	0.0048	0.0042	0.0038	0.0035	0.0032	0.0030	0.0027	0.0026	0.00238	0.0022	0.0021	0.00198	0.00188	0.0018	0.001733	0.00168	0.00163	0.0016	0.00157	0.0015	0.0015	0.0015	0.0015	0.0015	
T6	DSL	10	0.1886	0.1424	0.0566	0.0116	0.0105	0.0057	0.0057	0.0057	0.0057	0.0056	0.0056	0.0055	0.0055	0.0055	0.0054	0.0054	0.0054	0.0053	0.00531	0.0053	0.0053	0.00528	0.0052	0.005198	0.00519	0.00519	0.00519	0.00519	0.00519	0.00519	0.00519	0.00519	0.00519	0.00519	
T7	DSL	10	0.0444	0.0420	0.0373	0.0347	0.0324	0.0119	0.0119	0.0117	0.0115	0.0113	0.0111	0.0109	0.0106	0.0104	0.0103	0.0101	0.0100	0.0099	0.0098	0.0097	0.00969	0.00968	0.0097	0.00969	0.00968	0.00967	0.00965	0.00964	0.0096	0.0096	0.0096	0.0096	0.0096	0.0096	
LDA	DSL	15	0.0429	0.0372	0.0328	0.0283	0.0248	0.0212	0.0168	0.0142	0.0113	0.0086	0.0064	0.0049	0.0037	0.0032	0.0026	0.0020	0.0015	0.0012	0.00105	0.00104	0.00102	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101
LDA	DSL	15	0.2654	0.2500	0.2352	0.2233	0.2101	0.1937	0.1746	0.1606	0.1385	0.0938	0.0689	0.0497	0.0366	0.0286	0.0229	0.0207	0.0184	0.0156	0.01322	0.0126	0.0121	0.01167	0.01125	0.0107	0.010299	0.00989	0.00953	0.0093	0.0091	0.0088	0.0086	0.0085	0.0085	0.0085	
LDT2	DSL	15	0.0114	0.0106	0.0100	0.0096	0.0093	0.0091	0.0088	0.0085	0.0082	0.0078	0.0077	0.0076	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.00746	0.0075	0.0075	0.00747	0.00748	0.0075	0.007484	0.00749	0.00749	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	0.0075	
LHD1	DSL	15	0.0450	0.0423	0.0396	0.037	0.0346	0.0322	0.0295	0.0275	0.0257	0.0240	0.0225	0.0211	0.0198	0.0187	0.0177	0.0167	0.0159	0.0152	0.01449	0.0139	0.0133	0.01284	0.01241	0.012	0.011724	0.01146	0.01129	0.011	0.01079	0.0107	0.0105	0.0103	0.0101	0.0101	
LHD2	DSL	15	0.0358	0.0330	0.0305	0.0284	0.0264	0.0246	0.0227	0.0214	0.0202	0.0191	0.0182	0.0174	0.0167	0.0161	0.0156	0.0151	0.0147	0.0143	0.01394	0.0136	0.0134	0.01316	0.01297	0.0128	0.012698	0.01261	0.01254	0.0125	0.01244	0.0124	0.0124	0.0124	0.0124	0.0124	
MDV	DSL	15	0.0152	0.0141	0.0133	0.0121	0.0112	0.0099	0.0083	0.0074	0.0067	0.0055	0.0048	0.0042	0.0038	0.0035	0.0032	0.0030	0.0027	0.0026	0.00238	0.0022	0.0021	0.00198	0.00188	0.0018	0.001733	0.00168	0.00163	0.0016	0.00157	0.0015	0.0015	0.0015	0.0015	0.0015	
T6	DSL	15	0.1388	0.1083	0.0501	0.0097	0.0089	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	0.0047	0.0047	0.0047	0.0047	0.0047	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046
T7	DSL	15	0.0410	0.0384	0.0332	0.0305	0.0281	0.0099	0.0100	0.0099	0.0098	0.0097	0.0096	0.0095	0.0093	0.0092	0.0091	0.0090	0.0089	0.0088	0.00873	0.0087	0.0087	0.00868	0.00868	0.0087	0.008687	0.00866	0.00862	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086	0.0086
LDA	DSL	20	0.0332	0.0291	0.0257	0.0221	0.0194	0.0166	0.0132	0.0111	0.0089	0.0068	0.0051	0.0040	0.0031	0.0027	0.0022	0.0020	0.0019	0.0017	0.00157	0.0015	0.0014	0.00134	0.00124	0.0012	0.001165	0.00114	0.00112	0.0011	0.00109	0.0011	0.0011	0.0011	0.0011	0.0011	
LDA	DSL	20	0.2026	0.1910	0.1797	0.1702	0.1601	0.1476	0.1333	0.1227	0.1059	0.0718	0.0530	0.0384	0.0284	0.0223	0.0180	0.0163	0.0146	0.0125	0.01092	0.0102	0.0098	0.00954	0.00923	0.0088	0.008515	0.00821	0.00794	0.00768	0.00763	0.0074	0.0072	0.0072	0.0072	0.0072	
LDT2	DSL	20	0.0092	0.0087	0.0083	0.0079	0.0077	0.0075	0.0073	0.0072	0.0069	0.0066	0.0065	0.0065	0.0064	0.0064	0.0064	0.0064	0.0064	0.0064	0.00636	0.0064	0.0064	0.00637	0.00638	0.0064	0.006385	0.00639	0.00639	0.0064	0.0064	0.0064	0.0064	0.0064	0.0064	0.0064	0.0064
LHD1	DSL	20	0.0346	0.0324	0.0304	0.0287	0.0269	0.0252	0.0241	0.0226	0.0212	0.0198	0.0186	0.0175	0.0165	0.0157	0.0149	0.0141	0.0134	0.0128	0.01228	0.0118	0.0113	0.01088	0.01053	0.0102	0.009955	0.00974	0.00953	0.0093	0.00917	0.009	0.0089	0.0087	0.0086	0.0086	
LHD2	DSL	20	0.0279	0.0258	0.0240	0.0225	0.0211	0.0198	0.0189	0.0178	0.0169	0.0160	0.0153	0.0147	0.0141	0.0137	0.0132	0.0128	0.0125	0.0121	0.01187	0.0114	0.0114	0.01121	0.01105	0.0109	0.010822	0.01075	0.01069	0.0106	0.0106	0.0106	0.0105	0.0105	0.0105	0.0105	
LDT1	DSL	20	0.0121	0.0113	0.0108	0.0098	0.0090	0.0080</																													

2018	0.792	0.778	0.319	0.033
2019	0.796	0.772	0.265	0.029
2020	0.777	0.762	0.152	0.016
2021	0.765	0.749	0.019	0.014
2022	0.749	0.731	0.016	0.013
2023	0.732	0.713	0.007	0.008
2024	0.714	0.694	0.006	0.007
2025	0.695	0.675	0.005	0.007
2026	0.675	0.655	0.005	0.006
2027	0.653	0.636	0.004	0.006
2028	0.631	0.617	0.004	0.005
2029	0.608	0.599	0.003	0.005
2030	0.585	0.581	0.003	0.004
2031	0.561	0.564	0.003	0.004
2032	0.541	0.549	0.002	0.003
2033	0.522	0.535	0.002	0.003
2034	0.504	0.522	0.002	0.003
2035	0.496	0.509	0.002	0.002
2036	0.470	0.499	0.002	0.002
2037	0.455	0.489	0.002	0.002
2038	0.441	0.491	0.002	0.002
2039	0.428	0.473	0.002	0.002
2040	0.416	0.467	0.002	0.002
2041	0.406	0.462	0.002	0.002
2042	0.396	0.458	0.002	0.002
2043	0.388	0.454	0.001	0.002
2044	0.380	0.451	0.001	0.002
2045	0.373	0.449	0.001	0.002
2046	0.366	0.447	0.001	0.002
2047	0.360	0.446	0.001	0.002
2048	0.353	0.445	0.001	0.002
2049	0.348	0.444	0.001	0.002
2050	0.342	0.443	0.001	0.002
40-year Average 2018-2057	0.502	0.541	0.021	0.005

**Brodiaea Site Project (Moreno Valley, CA)
Emission Assumptions**

**2018
DPM Emissions**

Emission Factors

1) Vehicle Emissions

a) Truck and Auto Traffic

(1) EMFAC2014

(a) Calculations for SoCAB

(b) Truck Mix

Traffic Impact Study used to derive fleet mix
EMFAC2014 to derive the % of diesel truck vehicles

(d) Vehicle Travel Speed

Onsite Travel 5 mph
Offsite Travel 25 mph for heavy duty trucks
Offsite Travel 35 mph for cars and light trucks

(e) Truck Idle time:

15 minutes (truck idling only applies to LHDT1, LHDT2, MHDT, and HHDT diesel vehicles)

(f) Emission factors for DPM emissions

(g) Emissions calculated for 2018 to 2087

Traffic Allocation

- 1) Trip generation from the traffic study memorandum from Transogroup October 2016
- 2) Onsite travel emissions generated from diesel vehicles to loading dock areas according to the number of loading docks in each loading dock area
- 3) Onsite idling emissions generated only for diesel trucks and allocated according to the number of loading docks in each loading dock area

Emission Source Configuration

- 1) Offsite and onsite Vehicle traffic represented by a line source
- 2) Onsite idling represented as a line source

Onsite Travel Links

Diesel Vehicles

	Travel Distance (m)
Building 1 West	100
Building 1 South	189

Off site Travel Links

Diesel Vehicles

	Travel Distance (m)
Project Entrance>Brodiaea St>Gilbert St Cactus Ave>I215	3701

Other Input Parameters

Facility Operations for Warehouses (hr):	24
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Brodiaea Site Project (Moreno Valley, CA)
Emissions Summary for
Travel and Idling

2018
DPM

Onsite DSL Running Emissions

Location / AERMOD Source ID	Diesel Emissions (g/sec)
Building 1 - West Docks (ONWEST)	3.11E-06
Building 1 - South Docks (ONSOUTH)	1.68E-06
Total	4.80E-06

Onsite Truck Idling - Diesel Only

Location	Diesel Emissions (g/sec)
Building 1 - West Docks (IDLE_WEST)	1.43E-05
Building 1 - South Docks (IDLE_SOUTH)	4.08E-06
TOTAL	1.84E-05

Offsite DSL Emissions / AERMOD Source ID	Diesel Emissions (g/sec)
Project to Interstate 215 (OFF2)	6.82E-05

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)
Vehicle Trip Allocation to Buildings

2018

Building	Building Size Warehouse (sq-ft)
Building 1	99,978
Total	99,978

Trip Generation

Trip Generation Rate 3.56 trips/TSF as per Traffic Study Memorandum from Transpogroup October 2016

Building	trips/day (Non-PCE)
Building 1	356
Total	356

Diesel Vehicle Allocation for Warehouse Building

	Transpogroup Vehicle Distribution	EMFAC2014 Vehicle Default	EMFAC2014 % Diesel	EMFAC2014 % GAS	Number of Daily Diesel Trips	Number of Daily GAS Trips	Total Number of Diesel+GAS Trips	% Total
LDA (Passenger Car)	80.30%	59.3%	0.9%	99.1%	2	168	169	47.6%
LDT1		4.9%	0.1%	99.9%	0	14	14	4.0%
LDT2		21.9%	0.2%	99.8%	0	62	63	17.6%
MDT		13.9%	1.5%	98.5%	1	39	40	11.2%
Subtotal		100.0%			2	284	286	
LHDT1 (2 axle truck)	5.20%	75.7%	44.3%	55.7%	6	8	14	3.9%
LHDT2		24.3%	61.3%	38.7%	3	2	5	1.3%
Subtotal		100.0%			9	10	19	
MHDT (3 axle truck)	4.50%		87.6%	12.4%	14	2	16	4.5%
HHDT (4+ axle truck)	10.00%		99.1%	0.9%	35	0	36	10.0%
	19.70%							
Total					60	295	356	100.0%

Vehicle Distribution taken from Transpogroup Traffic Memorandum October 2016.

Vehicle Default taken from EMFAC2014 for the SoCAB

% Diesel taken from EMFAC2014 for Riverside County

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)

Distribution of VMT in the South Coast Air Basin 2018

Auto	Daily DSL		Daily GAS		% Auto	% GAS	% DSL
	VMT	VMT	VMT	VMT			
2018 LDA	1855378	207297400	2.09E+08	59.3%	99.1%	0.9%	
2018 LDT1	18701.99	17356142	17374844	4.9%	99.9%	0.1%	
2018 LDT2	126794.4	77072757	77199552	21.9%	99.8%	0.2%	
2018 MDT	726780.4	48439049	49165829	13.9%	98.5%	1.5%	
Subtotal	2727655	350165347	3.53E+08	100.0%	99.2%	0.8%	
Light Heavy Duty Truck							
2018 LHDT1	3142729	3943593.6	7086323	75.7%	55.7%	44.3%	
2018 LHDT2	1396295	883276.34	2279572	24.3%	38.7%	61.3%	
Subtotal	4539025	4826870	9365895	100.0%			
Heavy Duty Truck							
2018 T6	6685105	942543.49	7627648		12.4%	87.6%	
2018 T7	10818544	94681.824	10913226		0.9%	99.1%	

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea



Location	Vehicle type	Number of Diesel Trips	% of Fleet
Brodiaea Site Project (Moreno Valley, CA)	LHDT1	6	10.7%
	LHDT2	3	4.7%
	MHDT	14	24.1%
	HHDT	35	60.5%
Total		58	100.0%

NOTE: % Fleet and % diesel vehicles derived from the project traffic memorandum from Transpogroup and EMFAC2014 for the SoCAB
 Vehicle trips derived from the project traffic memorandum from Transpogroup



Vehicle Trip Allocation - Diesel Vehicles

Vehicle trips are allocated to building loading docks according to the number of dock doors on the west and south sides of the building

Loading Dock Allocations:

Building 1 - West 14 docks on west side
 Building 1 - South 4 docks on south side
 18 Total

Total Trips to Building 1 - West 45
 Total Trips to Building 1 - South 13

Onsite Truck Travel Segments	Total Diesel Vehicle Trips	Number of Diesel Vehicle Trips Transiting to Building Dock Areas				
		LHDT1	LHDT2	MHDT	HHDT	
Building 1 - to west docks	45	5	2	11	27	45
Building 1 - to south docks	13	1	1	3	8	13
Total Number of Diesel Vehicle Trips	58	6	3	14	35	58



Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Processes Modeled

Diesel truck exhaust
 Diesel truck idling

Facility Operations:
 Brodiaea (warehouse) 24 hrs/day, 52weeks/year

Onsite Roadway Links

DPM Emissions

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per day (in and out)	Link Length (m)	Link Length (mi)	Emissions Over Link (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Emissions for Each Link (g/sec)
Travel to Building 1 - West Docks	LHDT1	5	0.085	5	100	0.06	2.561E-02	5.64E-05	2.96E-07	3.11E-06
	LHDT2	5	0.085	2	100	0.06	8.611E-03	1.90E-05	9.97E-08	
	MHDT	5	0.220	11	100	0.06	1.495E-01	3.29E-04	1.73E-06	
	HHDT	5	0.050	27	100	0.06	8.532E-02	1.88E-04	9.88E-07	
Travel to Building 1 - South Docks	LHDT1	5	0.085	1	189	0.12	1.383E-02	3.05E-05	1.60E-07	1.68E-06
	LHDT2	5	0.065	1	189	0.12	4.650E-03	1.02E-05	5.38E-08	
	MHDT	5	0.220	3	189	0.12	8.079E-02	1.78E-04	9.35E-07	
	HHDT	5	0.050	8	189	0.12	4.607E-02	1.01E-04	5.33E-07	
TOTAL	LHDT1			6			3.944E-02	8.688E-05	4.565E-07	4.80E-06
	LHDT2			3			1.326E-02	2.921E-05	1.535E-07	
	MHDT			14			2.303E-01	5.073E-04	2.665E-06	
	HHDT			35			1.314E-01	2.894E-04	1.521E-06	
	Total			58			4.14E-01	9.13E-04	4.80E-06	

Diesel truck Idling Emissions

DPM Emissions Idle Time (minutes) 15

Building/Location	Truck Type	Emission Factor (g/Idle-hour)	Idling Time (min)	# Vehicles	Emissions (g/day)	Daily Emissions (lbs/day)	Average Emissions (g/sec)	Total Idling Emissions by Dock Area (g/sec)
Idle at Building 1 - West	LHDT1	0.792	15	2	4.78E-01	1.05E-03	5.54E-06	1.43E-05
	LHDT2	0.778	15	1	2.09E-01	4.60E-04	2.41E-06	
	MHDT	0.319	15	5	4.35E-01	9.57E-04	5.03E-06	
	HHDT	0.033	15	14	1.13E-01	2.50E-04	1.31E-06	
Idle at Building 1 - South	LHDT1	0.792	15	1	1.37E-01	3.01E-04	1.58E-06	4.08E-06
	LHDT2	0.778	15	0	5.96E-02	1.31E-04	6.90E-07	
	MHDT	0.319	15	2	1.24E-01	2.74E-04	1.44E-06	
	HHDT	0.033	15	4	3.24E-02	7.13E-05	3.75E-07	
TOTAL Vehicles	LHDT1			3	6.15E-01	1.35E-03	7.12E-06	1.84E-05
	LHDT2			1	2.68E-01	5.91E-04	3.10E-06	
	MHDT			7	5.59E-01	1.23E-03	6.47E-06	
	HHDT			18	1.46E-01	3.21E-04	1.69E-06	
	Total			29	1.59E+00	3.50E-03	1.84E-05	

NOTES:
 Onsite diesel truck travel emissions as per CARB EMFAC2014 for SoCAB
 Onsite diesel truck idle emissions as per CARB EMFAC2014 for Riverside County (SC)

Brodiaea Site Project (Moreno Valley, CA)

Offsite DSL Vehicle Travel Emissions

DPM

2018

Total Number of Daily DSL Truck Trips

Vehicle Class	Daily DSL Trips	Daily DSL Trips (I215 to/from DRWY1)
LHDT1-DSL	6	6
LHDT2-DSL	3	3
MHDT-DSL	14	14
HHDT-DSL	35	35
Total	58	58

Travel Link DSL Vehicle Trips

Travel Link	Link Length (m)	LHDT1-DSL (trips/day)	LHDT2-DSL (trips/day)	MHDT-DSL (trips/day)	HHDT-DSL (trips/day)	Total (trips/day)
Project Entrance>Brodiaea St>Gilbert>Cactus>I215	3701	6	3	14	35	58

Emission Factors

Vehicle Class	Emission Factor @ 25 mph (g/mi)
LHDT1-DSL	0.029
LHDT2-DSL	0.023
MHDT-DSL	0.089
HHDT-DSL	0.030

Travel Link DSL Emissions

Operations 24 hours/day

Travel Link	LHDT1-DSL (g/sec)	LHDT2-DSL (g/sec)	MHDT-DSL (g/sec)	HHDT-DSL (g/sec)	Total (g/sec)
Project Entrance>Brodiaea St>Gilbert>Cactus>I215	4.76E-06	1.71E-06	3.34E-05	2.84E-05	6.82E-05

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

EMFAC2014 South Coast Air Basin Running Emissions DPM (as PM10 Exhaust)
Emission Factors in g/mi

Vehicle	Fuel	Speed (mph)	2018
LDA	DSL	5	0.0749
LDT1	DSL	5	0.5197
LDT2	DSL	5	0.0171
LHD1	DSL	5	0.0854
LHD2	DSL	5	0.0646
MDV	DSL	5	0.0245
T6	DSL	5	0.2205
T7	DSL	5	0.0500
LDA	DSL	10	0.0569
LDT1	DSL	10	0.3628
LDT2	DSL	10	0.0143
LHD1	DSL	10	0.0606
LHD2	DSL	10	0.0472
MDV	DSL	10	0.0195
T6	DSL	10	0.1886
T7	DSL	10	0.0444
LDA	DSL	15	0.0429
LDT1	DSL	15	0.2654
LDT2	DSL	15	0.0114
LHD1	DSL	15	0.0450
LHD2	DSL	15	0.0358
MDV	DSL	15	0.0152
T6	DSL	15	0.1388
T7	DSL	15	0.0410
LDA	DSL	20	0.0332
LDT1	DSL	20	0.2026
LDT2	DSL	20	0.0092
LHD1	DSL	20	0.0346
LHD2	DSL	20	0.0279
MDV	DSL	20	0.0121
T6	DSL	20	0.1041
T7	DSL	20	0.0441
LDA	DSL	25	0.0257
LDT1	DSL	25	0.1609
LDT2	DSL	25	0.0076
LHD1	DSL	25	0.0288
LHD2	DSL	25	0.0233
MDV	DSL	25	0.0099
T6	DSL	25	0.0894
T7	DSL	25	0.0302
LDA	DSL	30	0.0209
LDT1	DSL	30	0.1337
LDT2	DSL	30	0.0065
LHD1	DSL	30	0.0247
LHD2	DSL	30	0.0200
MDV	DSL	30	0.0084
T6	DSL	30	0.0822
T7	DSL	30	0.0277
LDA	DSL	35	0.0174
LDT1	DSL	35	0.1162
LDT2	DSL	35	0.0057
LHD1	DSL	35	0.0222
LHD2	DSL	35	0.0180
MDV	DSL	35	0.0074
T6	DSL	35	0.0789
T7	DSL	35	0.0249
UBUS	DSL	35	0.1288
LDA	GAS	35	0.0017
LDT1	GAS	35	0.0031
LDT2	GAS	35	0.0016
LHD1	GAS	35	0.0014
LHD2	GAS	35	0.0010
MCY	GAS	35	0.0017
MDV	GAS	35	0.0018
MH	GAS	35	0.0021
OBUS	GAS	35	0.0007
SBUS	GAS	35	0.0009
T6	GAS	35	0.0010
T7	GAS	35	0.0008
UBUS	GAS	35	0.0015

Idling Emissions

EMFAC20014 Diesel PM10 Idling Emissions (Riverside County)				
	LHDT1 (g/hr)	LHDT2 (g/hr)	MHDT (g/hr)	HHDT (g/hr)
2018	0.792	0.778	0.319	0.033

Brodiaea Site Project (Moreno Valley, CA)

2018
TOG Emissions

Emission Assumptions

Emission Factors

1) Vehicle Emissions

a) Truck and Auto Traffic
(1) EMFAC2014

(a) Calculations for SoCAB
(b) Truck Mix

Traffic Memorandum from Transpogroup used to derive fleet mix
EMFAC2014 to derive the % of diesel truck vehicles

(d) Vehicle Travel Speed

Onsite Travel 5 mph
Offsite Travel 25 mph for heavy duty trucks
Offsite Travel 35 mph for cars and light trucks

(e) Truck Idle time:

15 minutes (truck idling only applies to LHDT1, LHDT2, MHDT, and HHDT diesel vehicles)

(f) Emission factors for

TOG emissions

(g) Emissions calculated for

2018

Traffic Allocation

- 1) Trip generation from the traffic study memorandum from Transogroup October 2016
- 2) Onsite travel emissions generated from diesel vehicles to loading dock areas according to the number of loading docks in each loading dock area
- 3) Onsite idling emissions generated only for diesel trucks and allocated according to the number of loading docks in each loading dock area

Emission Source Configuration

- 1) Offsite and onsite Vehicle traffic represented by a line source
- 2) Onsite idling represented as a kine source

Onsite Truck Travel Segments

Segment

Building 1 West
Building 1 South

Segment Travel Distance (m)

100
189

Offsite Vehicle Travel Segments

Segment

Project>Brodiaaea Ave>
Gilbert St>Cactus Ave>I215

Segment Travel Distance (m)

3701

Project>Brodiaaea Ave>Heacock St>SR60

3205

Other Input Parameters

Facility Operations (hr/day):

24

Brodiaea Site Project (Moreno Valley, CA)

2018 Pollutant: TOG

Total Travel Exhaust Emissions to Warehouse Building

		AERMOD Source ID	Diesel Vehicles (g/sec)	GAS Vehicles (g/sec)
Travel to Building				
Building 1 - West Docks		ONWEST	1.77E-04	3.90E-05
Building 1 - South Docks		ONSOUTH	9.55E-05	2.11E-05

Truck Idling Emission Sources at Warehouse Building

		AERMOD Source IDs	Diesel Vehicles Emissions (g/sec)	GAS Vehicles Emissions (g/sec)
Truck Idling at Building				
Building 1 - West Docks		IDLE_WEST	1.50E+01	7.25E-04
Building 1 - South Docks		IDLE_SOUTH	6.19E-05	2.07E-04

Parking Lot Emissions at Warehouse Building

AERMOD Source ID	Diesel Vehicles (g/m2-sec)	Gasoline Vehicles (g/m2-sec)
Parking Lot	1.22E-10	3.60E-08

Offsite Vehicle Emissions

		AERMOD Source ID	Travel Diesel Exhaust Emissions (g/sec)	Travel GAS Exhaust Emissions (g/sec)
Roadway Segment				
Project to SR60		OFF1	1.19E-03	6.47E-04
Project to Interstate 215		OFF2	1.34E-03	9.03E-04

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)
Vehicle Fleet Mix

2018

	Building Size (sq-ft)	ITE Peak Hour Trip Rate (trips/TSF)	Total Peak Hour Trips (Trips/hr)	
Building 1 - Warehouse	99,978	0.32	32	Trip rate provided by Transpogroup October 2016
Total	99,978		32	

Vehicle Fleet for High Cube Warehouse (Building 1)

Vehicle Distribution	EMFAC2014 Vehicle Mix	EMFAC2011 % Diesel	Number of Peak Hour Diesel Trips	Number of Peak Hour GAS Trips	Total Number of Peak Hour Trips	% Diesel Trips	% GAS Trips	Total Trips
LDA (Passenger Car)	58.8%	0.76%	0	15	15	0.36%	46.87%	
LDT1	5.1%	0.12%	0	1	1	0.00%	4.07%	
LDT2	21.6%	0.14%	0	6	6	0.02%	17.36%	
MDT	14.5%	1.15%	0	4	4	0.00%	11.61%	
SubTotal	80.3%	100.0%	0	26	26	0.39%	79.91%	80.30%
LHDT1 (2 axle truck)	77.4%	39.7%	1	1	1	1.60%	2.43%	
LHDT2	22.6%	57.8%	0	0	0	0.68%	0.50%	
Subtotal	5.2%	100.0%	1	1	2	2.28%	2.92%	5.20%
MHDT (3 axle truck)	4.5%	100.0%	1	0	1	3.90%	0.60%	4.50%
HHDT (4+ axle truck)	10.0%	100.0%	3	0	3	9.91%	0.09%	10.00%
Total	100.0%		5	27	32	16.48%	83.52%	100.00%

Vehicle Fleet Mix taken from EMFAC2014 for the SoCAB in 2018 and ITE trip rates for trucks
 % Diesel taken from EMFAC2014 for the SoCAB in 2018

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA)

2018

Trip Distribution by Building

Vehicle Allocation - Number of Peak Hour Heavy Duty Truck Trips

Allocation of Warehouse trips to building docks (based on the number of docks in each area of the building)

		% Total Docks
Building 1 West Dock Area	14 docks	78%
Building 1 South Dock Area	4 docks	22%
Total	18 docks	

Building 1:
 78% Heavy Duty Trucks travel to Building 1 West Docks from entrance on Brodiaaea Avenue
 22% Heavy Duty Trucks travel to Building 1 South Docks from entrance on Brodiaaea Avenue

Building	LHDT1-DSL	LHDT2-DSL	MHDT-DSL	HHDT-DSL	Total
Building 1- West Docks	0	0	1	2	4
Building 1 - South Docks	0	0	0	1	1
Total	1	0	1	3	5

Building	LHDT1-GAS	LHDT2-GAS	MHDT-GAS	HHDT-GAS	Total
Building 1- West Docks	1	0	0	0	1
Building 1 - South Docks	0	0	0	0	0
Total	1	0	0	0	1

Trip Distribution by Building

Vehicle Allocation - Number of Peak Hour Non-Heavy Duty Truck Vehicles Trips

Allocation of Warehouse trips: all vehicles assumed to aprk in the parking lot on the west side of the building

Building 1: 100% Passenger Cars and Light and Medium Duty Trucks Vehicles travel to Building 1 West Parking Lot from the entrance form Broadiaea Avenue

Building	LDA-DSL	LDT1-DSL	LDT2-DSL	MDT-DSL	Total
Building 1- West Parking Lot	0	0	0	0	0
Building	LDA-GAS	LDT1-GAS	LDT2-GAS	MDT-GAS	Total
Building 1- West Parking Lot	15	1	6	4	26

Brodiaea Site Project (Moreno Valley, CA)
Diesel Vehicle Emissions

2018 TOG

Processes Modeled

Diesel vehicle exhaust
 Diesel vehicle idling

Facility Operations

High Cube

1 hrs/day, 52weeks/year

Roadway Links Modeled

TOG Emissions

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per Hour (in and out)	Link Length (m)	Link Length (mi)	Ave Emissions Over Link (g/hr)	Ave Emissions (lbs/hr)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
Travel to Building 1 - West Docks Heavy Duty Diesel Trucks	LHDT1	0	0.881	0	100	0.06	2.176E-02	4.79E-05	6.044E-06	1.77E-04
	LHDT2	0	0.847	0	100	0.06	8.894E-03	1.96E-05	2.471E-06	
	MHDT	0	1.828	1	100	0.06	1.102E-01	2.43E-04	3.061E-05	
	HHDT	0	3.235	2	100	0.06	4.957E-01	1.09E-03	1.377E-04	
Travel to Building 1 - South Docks Heavy Duty Diesel Trucks	LHDT1	0	0.881	0	189	0.12	1.175E-02	2.59E-05	3.264E-06	9.55E-05
	LHDT2	0	0.847	0	189	0.12	4.803E-03	1.06E-05	1.334E-06	
	MHDT	0	1.828	0	189	0.12	5.951E-02	1.31E-04	1.653E-05	
	HHDT	0	3.235	1	189	0.12	2.677E-01	5.90E-04	7.435E-05	
Travel to Building 1 - West Docks Heavy Duty GAS Trucks	LHDT1	0	2.585	1	100	0.06	9.692E-02	2.13E-04	2.692E-05	3.90E-05
	LHDT2	0	1.713	0	100	0.06	1.315E-02	2.90E-05	3.654E-06	
	MHDT	0	2.254	0	100	0.06	2.091E-02	4.60E-05	5.807E-06	
	HHDT	0	6.846	0	100	0.06	9.430E-03	2.08E-05	2.619E-06	
Travel to Building 1 - South Docks Heavy Duty GAS Trucks	LHDT1	0	2.585	0	189	0.12	5.234E-02	1.15E-04	1.454E-05	2.11E-05
	LHDT2	0	1.713	0	189	0.12	7.103E-03	1.56E-05	1.973E-06	
	MHDT	0	2.254	0	189	0.12	1.129E-02	2.49E-05	3.136E-06	
	HHDT	0	6.846	0	189	0.12	5.092E-03	1.12E-05	1.414E-06	

Truck Idling Emissions

TOG Emissions

Idle Time (minutes/day)

15

minutes

Building/Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	# Idling Vehicles/hr	Emissions (g/hr)	Emissions (lb/hr)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
Idle at Building 1 - West Docks	LHDT1-DSL	3.612	15	0	1.80E-01	3.95E-04	4.99E-05	2.17E-04
	LHDT2-DSL	3.612	15	0	7.63E-02	1.68E-04	2.12E-05	
	MHDT-DSL	1.076	15	0	1.31E-01	2.87E-04	3.63E-05	
	HHDT-DSL	1.276	15	1	3.93E-01	8.66E-04	1.09E-04	
Idle at Building 1 - South Docks	LHDT1-DSL	3.612	15	0	5.13E-02	1.13E-04	1.42E-05	6.19E-05
	LHDT2-DSL	3.612	15	0	2.18E-02	4.80E-05	6.06E-06	
	MHDT-DSL	1.076	15	0	3.73E-02	8.21E-05	1.04E-05	
	HHDT-DSL	1.276	15	0	1.12E-01	2.48E-04	3.12E-05	
Idle at Building 1 - West Docks	LHDT1-GAS	22.248	15	0	1.68E+00	3.70E-03	4.66E-04	7.25E-04
	LHDT2-GAS	22.625	15	0	3.50E-01	7.70E-04	9.71E-05	
	MHDT-GAS	31.052	15	0	5.80E-01	1.28E-03	1.61E-04	
	HHDT-GAS	1.276	15	0	3.54E-03	7.79E-06	9.82E-07	
Idle at Building 1 - South Docks	LHDT1-GAS	22.248	15	0	4.80E-01	1.06E-03	1.33E-04	2.07E-04
	LHDT2-GAS	22.625	15	0	9.99E-02	2.20E-04	2.77E-05	
	MHDT-GAS	31.052	15	0	1.66E-01	3.65E-04	4.60E-05	
	HHDT-GAS	1.276	15	0	1.01E-03	2.23E-06	2.81E-07	

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Site Project (Moreno Valley, CA) 2018

Estimation of Parking Lot Emissions TOG

Parking Lot Usage
Vehicles accessing the parking lot assumed to be worker vehicles, or small delivery trucks or vans

Vehicle Classes
Vehicle classes accessing the parking lots: LDA, LDT1, LDT2, and MDT

Trip Generation
Peak Hour Trip Generation (LDA/LDT/MDT Vehicle): 26 trips/hr

Vehicle Mix
EMFAC2014 shows the following VMT percentages by vehicle class and fuel type South Coast Air Basin

Vehicle Class	Daily VMT-DSL	Daily VMT-GAS	Total Daily VMT	% Total
LDA	1,855,378	207,000,000	208,855,378	59.2%
LDT1	18,702	17,356,142	17,374,844	4.9%
LDT2	126,794	77,072,757	77,199,551	21.9%
MDT	726,780	48,439,049	49,165,829	13.9%
Total	2,727,655	349,867,948	352,595,603	100.0%

Vehicle Trips
Peak Hour trips

Vehicle Class	Daily Trips
LDA	15
LDT1	1
LDT2	6
MDT	4
Total	26

Vehicles Mix
The project's worker, customer, and small delivery truck vehicle trips were allocated as shown below.

Vehicle Class	% Diesel Vehicles	Peak Hour DSL Trips	Peak Hour GAS Trips	Total Trips
LDA	0.90%	0	15	15
LDT1	0.11%	0	1	1
LDT2	0.16%	0	6	6
MDT	1.50%	0	4	4
Total		0	25	26

Vehicle Emission Factors Includes Running Exhaust + Running Loss
Vehicle Speed: 5 mph

Vehicle Class	DSL Emission Factor (g/mi)	Gas Emission Factor (g/mi)
LDA	0.267	0.406
LDT1	0.859	1.732
LDT2	0.294	0.682
MDT	0.244	1.026

Vehicle Trip Length
Average distance from Driveway entrance from Brodiaea Avenue to Center of the Parking Lot: 30 m

Parking Lot Area
Area 2266 square meters

Parking Lot Emissions
Emissions (g/sec-m2) = Emission Factor (g/mi) x mile/trip x trips/hr / area of the parking lot x conversion factors

Operations 1 hours/day for Peak Hour

Vehicle Class	DSL Emissions (g/hr)	GAS Emissions (g/hr)	Total Emissions (g/sec-m2)
LDA	6.78E-04	1.14E-01	1.41E-08
LDT1	2.18E-05	4.08E-02	5.01E-09
LDT2	5.08E-05	7.14E-02	8.76E-09
MDT	2.44E-04	6.75E-02	8.30E-09
Total	9.95E-04	2.94E-01	3.61E-08

Total Emissions (g/sec-m2)

DSL Emissions 1.22E-10
GAS Emissions 3.60E-08

Brodiaea Site Project (Moreno Valley, CA) 2018 TOG Emissions

Project Operations 1 hours/day

Offsite Diesel Truck Roadway Emissions (trip percentages provided by the client)

Segment ID	Description	% total Trips
OFF2T	Project Entrance>Gilbert St>Cactus >I215	100%

Assumes a vehicle speed of 25 mph

Segment ID: OFF2T -DSL

Travel Distance: 3701 meters
Operations: 1 hours/day

Vehicle Class	Daily Trips (trips/hr)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/hr)	Emissions (g/sec)
LHDT1-DSL	1	0.195	2.30	0.23	6.36E-05
LHDT2-DSL	0	0.155	2.30	0.08	2.15E-05
MHDT-DSL	1	0.296	2.30	0.85	2.36E-04
HHDT-DSL	3	0.427	2.30	3.11	8.64E-04
Total	5				1.18E-03

Segment ID: OFF2T-GAS

Travel Distance: 3701 meters
Operations: 1 hours/day

Vehicle Class	Daily Trips (trips/hr)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/hr)	Emissions (g/sec)
LHDT1-GAS	1	0.195	2.30	0.35	9.66E-05
LHDT2-GAS	0	0.155	2.30	0.06	1.57E-05
MHDT-GAS	0	0.296	2.30	0.13	3.63E-05
HHDT-GAS	0	0.427	2.30	0.03	7.77E-06
Total	1				1.56E-04

Offsite Non-Heavy Duty Diesel Vehicle Roadway Segments (assumption)

Segment ID	Description	% Total Trips
WOFF1	Project Entrance>Heacock St>SR60	50%
WOFF2	Project Entrance?Gilbert>Cactus>I215	50%

Offsite Non-Heavy Duty Vehicle Roadway Segment Trips

Segment	LDA-DSL (trips/hr)	LDT1-DSL (trips/hr)	LDT2-DSL (trips/hr)	MDT-DSL (trips/hr)	LDA-GAS (trips/hr)	LDT1-GAS (trips/hr)	LDT2-GAS (trips/hr)	MDT-GAS (trips/hr)	LHDT1-GAS (trips/hr)	LHDT2-GAS (trips/hr)	MHDT-GAS (trips/hr)	HHDT-GAS (trips/hr)	Total (trips/hr)
OFF1A	0	0	0	0	7	1	3	2	0	0	0	0	13
OFF2A	0	0	0	0	7	1	3	2	0	0	0	0	13

Offsite Segment ID - OFF1A Emission Factor @ 35 mph for LDA, LDT, MDT)

Segment	Segment Length (m)	Segment Length (mi)	Emission Factor (g/mi)	Emissions (g/hr)	Operations (hours/day)	Emissions (g/sec)	GAS (g/sec)	Diesel (g/sec)
LDA-DSL	3205	1.99	0.025	2.92E-03	1	8.12E-07		
LDT1-DSL	3205	1.99	0.172	2.64E-04	1	7.33E-08	6.47E-04	1.13E-06
LDT2-DSL	3205	1.99	0.018	1.38E-04	1	3.84E-08		
MDT-DSL	3205	1.99	0.018	7.61E-04	1	2.11E-07		
LDA-GAS	3205	1.99	0.059	8.80E-01	1	2.44E-04		
LDT1-GAS	3205	1.99	0.260	3.37E-01	1	9.37E-05		
LDT2-GAS	3205	1.99	0.100	5.51E-01	1	1.53E-04		
MDT-GAS	3205	1.99	0.153	5.61E-01	1	1.56E-04		
Total						6.48E-04		

Offsite Segment ID - OFF2A Emission Factor @ 35 mph for LDA, LDT, MDT and 25 mph for LHDT, MHDT, HHDT)

Segment	Segment Length (m)	Segment Length (mi)	Emission Factor (g/mi)	Emissions (g/hr)	Operations (hours/day)	Emissions (g/sec)	GAS (g/sec)	Diesel (g/sec)
LDA-DSL	3701	2.30	0.025	3.37E-03	1	9.37E-07	7.47E-04	1.31E-06
LDT1-DSL	3701	2.30	0.172	3.05E-04	1	8.47E-08		
LDT2-DSL	3701	2.30	0.018	1.60E-04	1	4.43E-08		
MDT-DSL	3701	2.30	0.018	8.79E-04	1	2.44E-07		
LDA-GAS	3701	2.30	0.059	1.02E+00	1	2.82E-04		
LDT1-GAS	3701	2.30	0.260	3.89E-01	1	1.08E-04		
LDT2-GAS	3701	2.30	0.100	6.37E-01	1	1.77E-04		
MDT-GAS	3701	2.30	0.153	6.47E-01	1	1.80E-04		
Total						7.48E-04		

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

**Brodaiea Site Project (Moreno Valley, CA)
TOG**

2018

**EMFAC2014 Running Diesel Exhaust Emissions
in units of grams/mile**

		Exhaust Emission Factor (g/mi)				Exhaust Emission Factor (g/mi)				Running	Running Loss (g/mi)			
		5 mph	15 mph	25 mph	35 mph	5 mph	15 mph	25 mph	35 mph	Loss (g/hr)	5 mph	15 mph	25 mph	35 mph
LDA	DSL	0.267	0.105	0.037	0.0254	0.2667	0.1052	0.0373	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000
LDT1	DSL	0.859	0.404	0.233	0.1718	0.8594	0.4036	0.2326	0.1718	0.0000	0.0000	0.0000	0.0000	0.0000
LDT2	DSL	0.294	0.110	0.029	0.0180	0.2944	0.1099	0.0288	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000
LHD1	DSL	0.881	0.396	0.195	0.1389	0.8809	0.3956	0.1948	0.1389	0.0000	0.0000	0.0000	0.0000	0.0000
LHD2	DSL	0.847	0.360	0.155	0.1079	0.8469	0.3602	0.1546	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000
MDV	DSL	0.244	0.091	0.027	0.0178	0.2438	0.0912	0.0270	0.0178	0.0000	0.0000	0.0000	0.0000	0.0000
MH	DSL	1.308	0.491	0.157	0.1061	1.3078	0.4906	0.1566	0.1061	0.0000	0.0000	0.0000	0.0000	0.0000
OBUS	DSL	0.928	0.482	0.246	0.1400	0.9280	0.4815	0.2459	0.1400	0.0000	0.0000	0.0000	0.0000	0.0000
SBUS	DSL	0.941	0.405	0.154	0.0936	0.9415	0.4046	0.1541	0.0936	0.0000	0.0000	0.0000	0.0000	0.0000
T6	DSL	1.828	0.760	0.296	0.1912	1.8282	0.7599	0.2958	0.1912	0.0000	0.0000	0.0000	0.0000	0.0000
T7	DSL	3.235	1.140	0.427	0.2685	3.2353	1.1401	0.4266	0.2685	0.0000	0.0000	0.0000	0.0000	0.0000
UBUS	DSL	23.182	8.861	2.836	1.8689	23.1817	8.8614	2.8361	1.8689	0.0000	0.0000	0.0000	0.0000	0.0000
LDA	GAS	0.406	0.149	0.085	0.0589	0.1646	0.0681	0.0367	0.0244	1.2070	0.2414	0.0805	0.0483	0.0345
LDT1	GAS	1.732	0.622	0.368	0.2602	0.4757	0.2034	0.1163	0.0807	6.2840	1.2568	0.4189	0.2514	0.1795
LDT2	GAS	0.682	0.246	0.143	0.0997	0.2322	0.0965	0.0527	0.0355	2.2490	0.4498	0.1499	0.0900	0.0643
LHD1	GAS	2.585	0.919	0.543	0.3846	0.5241	0.2321	0.1308	0.0903	10.3020	2.0604	0.6868	0.4121	0.2943
LHD2	GAS	1.713	0.602	0.355	0.2505	0.2813	0.1247	0.0683	0.0460	7.1590	1.4318	0.4773	0.2864	0.2045
MCY	GAS	16.210	7.252	4.084	2.8168	15.7760	7.1071	3.9968	2.7547	2.1720	0.4344	0.1448	0.0869	0.0621
MDV	GAS	1.026	0.382	0.220	0.1534	0.4661	0.1953	0.1079	0.0733	2.8020	0.5604	0.1868	0.1121	0.0801
MH	GAS	8.949	3.131	1.868	1.3312	1.2945	0.5794	0.3367	0.2378	38.2710	7.6542	2.5514	1.5308	1.0935
OBUS	GAS	1.309	0.492	0.277	0.1892	0.6155	0.2611	0.1382	0.0901	3.4680	0.6936	0.2312	0.1387	0.0991
SBUS	GAS	2.822	1.017	0.579	0.3992	0.8914	0.3730	0.1929	0.1234	9.6540	1.9308	0.6436	0.3862	0.2758
T6	GAS	2.254	0.872	0.488	0.3328	1.1599	0.5075	0.2695	0.1766	5.4690	1.0938	0.3646	0.2188	0.1563
T7	GAS	6.846	2.744	1.466	0.9647	6.0148	2.4669	1.2997	0.8460	4.1540	0.8308	0.2769	0.1662	0.1187
UBUS	GAS	4.811	1.968	1.004	0.7004	3.1164	1.4032	0.6651	0.4584	8.4720	1.6944	0.5648	0.3389	0.2421

**EMFAC2014 Idling Emissions
in units of grams/idle-hour**

Vehicle Class	Fuel	Vehicle Speed (mph)	TOG (g/hr)
LDA	DSL	Idle	
LDT1	DSL	Idle	
LDT2	DSL	Idle	
MDV	DSL	Idle	
LHD1	DSL	Idle	3.612
LHD2	DSL	Idle	3.612
T6	DSL	Idle	1.076
T7	DSL	Idle	1.276
LDA	GAS	Idle	
LDT1	GAS	Idle	
LDT2	GAS	Idle	
MDT	GAS	Idle	
LHD1	GAS	Idle	22.248
LHD2	GAS	Idle	22.625
T6	GAS	Idle	31.052
T7	GAS	Idle	34.228

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodaiea

**Appendix B:
Health Risk Analysis AERMOD Modeling Output**

Appendix B

Health Risk Analysis AERMOD Modeling Output

SCAQMD/OEHHA Cancer Risk Guidance1

70-year Cancer Risk Estimates2

40-year Cancer Risk Estimates3

Chronic Non-Cancer Hazard Index4

Acute Non-Cancer Hazard Index5

AERMOD Model Output for 1 hour and Annual Averages with
Unit Emissions9

SCAQMD/OEHHA Cancer Risk Guidance

Cancer Risk = Concentration_{DPM} x CPF x DBR x ED x EF / AT

Concentration_{DPM} = Average DPM concentration estimated from AERMOD air dispersion model (ug/m3)

CPF = cancer potency factor; the CPF for DPM is 1.1 (mg/kg-day)⁻¹

DBR = daily breathing rate: the DBR is 302 (liters/kg-day)

ED = exposure duration: 70 years
40 years for workers

EF = exposure frequency: 350 days per year for sensitive/residential receptors
250 days per year for workers

AT = averaging time: 25550 days

Cancer Risk = Concentration_{DPM} x 318.5 in units of risk/million) for residents

Cancer Risk = Concentration_{DPM} x 64.2 in units of risk/million) for workers

Brodiaea Warehouse Project (Moreno Valley, CA)

Sample Output

Estimation of Cancer Risks for Residential Receptors

X (m)	Y (m)	Onsite-West Unit Emissions (ug/m3)	70-year Onsite-West Actual Emissions (ug/m3)	Onsite-South Unit Emissions (ug/m3)	70-year Onsite-South Actual Emissions (ug/m3)	Idle-West Unit Emissions (ug/m3)	70-year Idle-West Actual Emissions (ug/m3)	Idle-South Unit Emissions (ug/m3)	70-year Idle-South Actual Emissions (ug/m3)	Offsite (OFF2) Unit Emissions (ug/m3)	70-year Offsite Actual Emissions (ug/m3)	70-year Total Actual Emissions (ug/m3)	70-year Cancer Risk (/million)
477500	3751425	1.5070	0.000001	1.6038	0.0000	1.5584	0.0000	1.7343	0.0000	0.9691	0.0000	0.00004	0.01226
477550	3751425	1.4834	0.000001	1.5784	0.0000	1.5340	0.0000	1.7089	0.0000	0.9353	0.0000	0.00004	0.01191
477600	3751425	1.4571	0.000001	1.5498	0.0000	1.5066	0.0000	1.6794	0.0000	0.9023	0.0000	0.00004	0.01156
477650	3751425	1.4303	0.000001	1.5202	0.0000	1.4786	0.0000	1.6483	0.0000	0.8710	0.0000	0.00004	0.01121
477700	3751425	1.3997	0.000001	1.4865	0.0000	1.4465	0.0000	1.6122	0.0000	0.8399	0.0000	0.00003	0.01087
477750	3751425	1.3675	0.000001	1.4510	0.0000	1.4127	0.0000	1.5737	0.0000	0.8099	0.0000	0.00003	0.01052
477800	3751425	1.3341	0.000001	1.4141	0.0000	1.3776	0.0000	1.5334	0.0000	0.7810	0.0000	0.00003	0.01018
477850	3751425	1.2998	0.000001	1.3763	0.0000	1.3415	0.0000	1.4917	0.0000	0.7532	0.0000	0.00003	0.00985
477900	3751425	1.2649	0.000001	1.3378	0.0000	1.3048	0.0000	1.4492	0.0000	0.7264	0.0000	0.00003	0.00953
477950	3751425	1.2301	0.000001	1.2994	0.0000	1.2683	0.0000	1.4066	0.0000	0.7009	0.0000	0.00003	0.00922
477500	3751475	1.6253	0.000001	1.7353	0.0000	1.6835	0.0000	1.8839	0.0000	1.0226	0.0000	0.00004	0.01304
477550	3751475	1.5980	0.000001	1.7056	0.0000	1.6552	0.0000	1.8541	0.0000	0.9847	0.0000	0.00004	0.01264
477600	3751475	1.5676	0.000001	1.6722	0.0000	1.6233	0.0000	1.8194	0.0000	0.9479	0.0000	0.00004	0.01224
477650	3751475	1.5345	0.000001	1.6357	0.0000	1.5886	0.0000	1.7806	0.0000	0.9123	0.0000	0.00004	0.01185
477700	3751475	1.4992	0.000001	1.5966	0.0000	1.5515	0.0000	1.7385	0.0000	0.8779	0.0000	0.00004	0.01146
477750	3751475	1.4622	0.000001	1.5556	0.0000	1.5126	0.0000	1.6938	0.0000	0.8448	0.0000	0.00003	0.01107
477800	3751475	1.4239	0.000001	1.5132	0.0000	1.4723	0.0000	1.6470	0.0000	0.8130	0.0000	0.00003	0.01070
477850	3751475	1.3848	0.000001	1.4698	0.0000	1.4310	0.0000	1.5989	0.0000	0.7825	0.0000	0.00003	0.01033
477900	3751475	1.3452	0.000001	1.4258	0.0000	1.3893	0.0000	1.5500	0.0000	0.7533	0.0000	0.00003	0.00997
477950	3751475	1.3068	0.000001	1.3832	0.0000	1.3488	0.0000	1.5023	0.0000	0.7258	0.0000	0.00003	0.00963
477500	3751525	1.7569	0.000001	1.8822	0.0000	1.8229	0.0000	2.0524	0.0000	1.0803	0.0000	0.00004	0.01389
477550	3751525	1.7250	0.000001	1.8474	0.0000	1.7897	0.0000	2.0172	0.0000	1.0376	0.0000	0.00004	0.01344
477600	3751525	1.6896	0.000001	1.8083	0.0000	1.7526	0.0000	1.9763	0.0000	0.9964	0.0000	0.00004	0.01299
477650	3751525	1.6511	0.000001	1.7656	0.0000	1.7121	0.0000	1.9306	0.0000	0.9567	0.0000	0.00004	0.01254
477700	3751525	1.6102	0.000001	1.7200	0.0000	1.6690	0.0000	1.8810	0.0000	0.9185	0.0000	0.00004	0.01211
477750	3751525	1.5675	0.000001	1.6724	0.0000	1.6239	0.0000	1.8286	0.0000	0.8819	0.0000	0.00004	0.01168
477800	3751525	1.5240	0.000001	1.6239	0.0000	1.5780	0.0000	1.7748	0.0000	0.8470	0.0000	0.00004	0.01126
477850	3751525	1.4792	0.000001	1.5739	0.0000	1.5306	0.0000	1.7189	0.0000	0.8135	0.0000	0.00003	0.01085
477900	3751525	1.4340	0.000001	1.5235	0.0000	1.4828	0.0000	1.6624	0.0000	0.7816	0.0000	0.00003	0.01045
477950	3751525	1.3899	0.000001	1.4744	0.0000	1.4363	0.0000	1.6071	0.0000	0.7514	0.0000	0.00003	0.01007
477500	3751575	1.9062	0.000002	2.0501	0.0000	1.9816	0.0000	2.2463	0.0000	1.1436	0.0000	0.00005	0.01484
477550	3751575	1.8688	0.000002	2.0090	0.0000	1.9426	0.0000	2.2045	0.0000	1.0955	0.0000	0.00004	0.01433
477600	3751575	1.8272	0.000002	1.9627	0.0000	1.8988	0.0000	2.1557	0.0000	1.0491	0.0000	0.00004	0.01382
477650	3751575	1.7822	0.000001	1.9124	0.0000	1.8513	0.0000	2.1013	0.0000	1.0046	0.0000	0.00004	0.01331
477700	3751575	1.7346	0.000001	1.8590	0.0000	1.8009	0.0000	2.0427	0.0000	0.9620	0.0000	0.00004	0.01282
477750	3751575	1.6862	0.000001	1.8047	0.0000	1.7497	0.0000	1.9824	0.0000	0.9218	0.0000	0.00004	0.01234
477800	3751575	1.6360	0.000001	1.7483	0.0000	1.6966	0.0000	1.9193	0.0000	0.8832	0.0000	0.00004	0.01187
477850	3751575	1.5844	0.000001	1.6904	0.0000	1.6418	0.0000	1.8541	0.0000	0.8463	0.0000	0.00004	0.01141
477900	3751575	1.5326	0.000001	1.6324	0.0000	1.5869	0.0000	1.7885	0.0000	0.8112	0.0000	0.00003	0.01097
477950	3751575	1.4811	0.000001	1.5750	0.0000	1.5325	0.0000	1.7233	0.0000	0.7779	0.0000	0.00003	0.01055
477500	3751625	2.0794	0.000002	2.2460	0.0000	2.1662	0.0000	2.4743	0.0000	1.2146	0.0000	0.00005	0.01592
477550	3751625	2.0356	0.000002	2.1974	0.0000	2.1203	0.0000	2.4245	0.0000	1.1600	0.0000	0.00005	0.01533
477600	3751625	1.9852	0.000002	2.1410	0.0000	2.0671	0.0000	2.3644	0.0000	1.1070	0.0000	0.00005	0.01474
477650	3751625	1.9320	0.000002	2.0811	0.0000	2.0108	0.0000	2.2991	0.0000	1.0568	0.0000	0.00004	0.01417
477700	3751625	1.8770	0.000002	2.0189	0.0000	1.9524	0.0000	2.2302	0.0000	1.0094	0.0000	0.00004	0.01361
477750	3751625	1.8189	0.000001	1.9533	0.0000	1.8907	0.0000	2.1566	0.0000	0.9640	0.0000	0.00004	0.01306
477800	3751625	1.7596	0.000001	1.8863	0.0000	1.8277	0.0000	2.0809	0.0000	0.9209	0.0000	0.00004	0.01253
477850	3751625	1.6999	0.000001	1.8190	0.0000	1.7642	0.0000	2.0044	0.0000	0.8802	0.0000	0.00004	0.01202
477900	3751625	1.6412	0.000001	1.7528	0.0000	1.7018	0.0000	1.9288	0.0000	0.8419	0.0000	0.00004	0.01153
477950	3751625	1.5830	0.000001	1.6876	0.0000	1.6401	0.0000	1.8541	0.0000	0.8056	0.0000	0.00003	0.01106
477500	3751675	2.2769	0.000002	2.4711	0.0000	2.3776	0.0000	2.7390	0.0000	1.2926	0.0000	0.00005	0.01713
477550	3751675	2.2238	0.000002	2.4118	0.0000	2.3217	0.0000	2.6775	0.0000	1.2297	0.0000	0.00005	0.01645

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Warehouse Project (Moreno Valley, CA)

Estimation of Cancer Risks for Worker Receptors

X (m)	Y (m)	Onsite-West		40-year Onsite-West		Onsite-South		40-year Onsite-South		Idle-West		40-year Idle-West		Idle-South		40-year Idle-South		Offsite Unit Emissions (ug/m3)	40-year Offsite Actual Emissions (ug/m3)	40-year Total Actual Emissions (ug/m3)	40-year Cancer Risk (/million)
		Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)								
477500	3751425	1.507	0.000	1.604	0.000	1.558	0.000	1.734	0.000	0.969	0.000	0.000	0.000	0.000	0.000	0.969	0.000	0.000	0.000	0.00307	
477550	3751425	1.483	0.000	1.578	0.000	1.534	0.000	1.709	0.000	0.935	0.000	0.000	0.000	0.000	0.000	0.935	0.000	0.000	0.000	0.00298	
477600	3751425	1.457	0.000	1.550	0.000	1.507	0.000	1.679	0.000	0.902	0.000	0.000	0.000	0.000	0.000	0.902	0.000	0.000	0.000	0.00289	
477650	3751425	1.430	0.000	1.520	0.000	1.479	0.000	1.648	0.000	0.871	0.000	0.000	0.000	0.000	0.000	0.871	0.000	0.000	0.000	0.00281	
477700	3751425	1.400	0.000	1.487	0.000	1.446	0.000	1.612	0.000	0.840	0.000	0.000	0.000	0.000	0.000	0.840	0.000	0.000	0.000	0.00272	
477750	3751425	1.367	0.000	1.451	0.000	1.413	0.000	1.574	0.000	0.810	0.000	0.000	0.000	0.000	0.000	0.810	0.000	0.000	0.000	0.00263	
477800	3751425	1.334	0.000	1.414	0.000	1.378	0.000	1.533	0.000	0.781	0.000	0.000	0.000	0.000	0.000	0.781	0.000	0.000	0.000	0.00255	
477850	3751425	1.300	0.000	1.376	0.000	1.342	0.000	1.492	0.000	0.753	0.000	0.000	0.000	0.000	0.000	0.753	0.000	0.000	0.000	0.00246	
477900	3751425	1.265	0.000	1.338	0.000	1.305	0.000	1.449	0.000	0.726	0.000	0.000	0.000	0.000	0.000	0.726	0.000	0.000	0.000	0.00238	
477950	3751425	1.230	0.000	1.299	0.000	1.268	0.000	1.407	0.000	0.701	0.000	0.000	0.000	0.000	0.000	0.701	0.000	0.000	0.000	0.00230	
477500	3751475	1.625	0.000	1.735	0.000	1.684	0.000	1.884	0.000	1.023	0.000	0.000	0.000	0.000	0.000	1.023	0.000	0.000	0.000	0.00326	
477550	3751475	1.598	0.000	1.706	0.000	1.655	0.000	1.854	0.000	0.985	0.000	0.000	0.000	0.000	0.000	0.985	0.000	0.000	0.000	0.00316	
477600	3751475	1.568	0.000	1.672	0.000	1.623	0.000	1.819	0.000	0.948	0.000	0.000	0.000	0.000	0.000	0.948	0.000	0.000	0.000	0.00306	
477650	3751475	1.534	0.000	1.636	0.000	1.589	0.000	1.781	0.000	0.912	0.000	0.000	0.000	0.000	0.000	0.912	0.000	0.000	0.000	0.00296	
477700	3751475	1.499	0.000	1.597	0.000	1.552	0.000	1.739	0.000	0.878	0.000	0.000	0.000	0.000	0.000	0.878	0.000	0.000	0.000	0.00287	
477750	3751475	1.462	0.000	1.556	0.000	1.513	0.000	1.694	0.000	0.845	0.000	0.000	0.000	0.000	0.000	0.845	0.000	0.000	0.000	0.00277	
477800	3751475	1.424	0.000	1.513	0.000	1.472	0.000	1.647	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.00267	
477850	3751475	1.385	0.000	1.470	0.000	1.431	0.000	1.599	0.000	0.783	0.000	0.000	0.000	0.000	0.000	0.783	0.000	0.000	0.000	0.00258	
477900	3751475	1.345	0.000	1.426	0.000	1.389	0.000	1.550	0.000	0.753	0.000	0.000	0.000	0.000	0.000	0.753	0.000	0.000	0.000	0.00249	
477950	3751475	1.307	0.000	1.383	0.000	1.349	0.000	1.502	0.000	0.726	0.000	0.000	0.000	0.000	0.000	0.726	0.000	0.000	0.000	0.00241	
477500	3751525	1.757	0.000	1.882	0.000	1.823	0.000	2.052	0.000	1.080	0.000	0.000	0.000	0.000	0.000	1.080	0.000	0.000	0.000	0.00348	
477550	3751525	1.725	0.000	1.847	0.000	1.790	0.000	2.017	0.000	1.038	0.000	0.000	0.000	0.000	0.000	1.038	0.000	0.000	0.000	0.00336	
477600	3751525	1.690	0.000	1.808	0.000	1.753	0.000	1.976	0.000	0.996	0.000	0.000	0.000	0.000	0.000	0.996	0.000	0.000	0.000	0.00325	
477650	3751525	1.651	0.000	1.766	0.000	1.712	0.000	1.931	0.000	0.957	0.000	0.000	0.000	0.000	0.000	0.957	0.000	0.000	0.000	0.00314	
477700	3751525	1.610	0.000	1.720	0.000	1.669	0.000	1.881	0.000	0.918	0.000	0.000	0.000	0.000	0.000	0.918	0.000	0.000	0.000	0.00303	
477750	3751525	1.567	0.000	1.672	0.000	1.624	0.000	1.829	0.000	0.882	0.000	0.000	0.000	0.000	0.000	0.882	0.000	0.000	0.000	0.00292	
477800	3751525	1.524	0.000	1.624	0.000	1.578	0.000	1.775	0.000	0.847	0.000	0.000	0.000	0.000	0.000	0.847	0.000	0.000	0.000	0.00281	
477850	3751525	1.479	0.000	1.574	0.000	1.531	0.000	1.719	0.000	0.814	0.000	0.000	0.000	0.000	0.000	0.814	0.000	0.000	0.000	0.00271	
477900	3751525	1.434	0.000	1.524	0.000	1.483	0.000	1.662	0.000	0.782	0.000	0.000	0.000	0.000	0.000	0.782	0.000	0.000	0.000	0.00261	
477950	3751525	1.390	0.000	1.474	0.000	1.436	0.000	1.607	0.000	0.751	0.000	0.000	0.000	0.000	0.000	0.751	0.000	0.000	0.000	0.00252	
477500	3751575	1.906	0.000	2.050	0.000	1.982	0.000	2.246	0.000	1.144	0.000	0.000	0.000	0.000	0.000	1.144	0.000	0.000	0.000	0.00371	
477550	3751575	1.869	0.000	2.009	0.000	1.943	0.000	2.204	0.000	1.095	0.000	0.000	0.000	0.000	0.000	1.095	0.000	0.000	0.000	0.00358	
477600	3751575	1.827	0.000	1.963	0.000	1.899	0.000	2.156	0.000	1.049	0.000	0.000	0.000	0.000	0.000	1.049	0.000	0.000	0.000	0.00345	
477650	3751575	1.782	0.000	1.912	0.000	1.851	0.000	2.101	0.000	1.005	0.000	0.000	0.000	0.000	0.000	1.005	0.000	0.000	0.000	0.00333	
477700	3751575	1.735	0.000	1.859	0.000	1.801	0.000	2.043	0.000	0.962	0.000	0.000	0.000	0.000	0.000	0.962	0.000	0.000	0.000	0.00320	
477750	3751575	1.686	0.000	1.805	0.000	1.750	0.000	1.982	0.000	0.922	0.000	0.000	0.000	0.000	0.000	0.922	0.000	0.000	0.000	0.00308	
477800	3751575	1.636	0.000	1.748	0.000	1.697	0.000	1.919	0.000	0.883	0.000	0.000	0.000	0.000	0.000	0.883	0.000	0.000	0.000	0.00297	
477850	3751575	1.584	0.000	1.690	0.000	1.642	0.000	1.854	0.000	0.846	0.000	0.000	0.000	0.000	0.000	0.846	0.000	0.000	0.000	0.00285	
477900	3751575	1.533	0.000	1.632	0.000	1.587	0.000	1.788	0.000	0.811	0.000	0.000	0.000	0.000	0.000	0.811	0.000	0.000	0.000	0.00274	
477950	3751575	1.481	0.000	1.575	0.000	1.532	0.000	1.723	0.000	0.778	0.000	0.000	0.000	0.000	0.000	0.778	0.000	0.000	0.000	0.00263	
477500	3751625	2.079	0.000	2.246	0.000	2.166	0.000	2.474	0.000	1.215	0.000	0.000	0.000	0.000	0.000	1.215	0.000	0.000	0.000	0.00398	
477550	3751625	2.036	0.000	2.197	0.000	2.120	0.000	2.425	0.000	1.160	0.000	0.000	0.000	0.000	0.000	1.160	0.000	0.000	0.000	0.00383	
477600	3751625	1.985	0.000	2.141	0.000	2.067	0.000	2.364	0.000	1.107	0.000	0.000	0.000	0.000	0.000	1.107	0.000	0.000	0.000	0.00368	
477650	3751625	1.932	0.000	2.081	0.000	2.011	0.000	2.299	0.000	1.057	0.000	0.000	0.000	0.000	0.000	1.057	0.000	0.000	0.000	0.00354	
477700	3751625	1.877	0.000	2.019	0.000	1.952	0.000	2.230	0.000	1.009	0.000	0.000	0.000	0.000	0.000	1.009	0.000	0.000	0.000	0.00340	
477750	3751625	1.819	0.000	1.953	0.000	1.891	0.000	2.157	0.000	0.964	0.000	0.000	0.000	0.000	0.000	0.964	0.000	0.000	0.000	0.00326	
477800	3751625	1.760	0.000	1.886	0.000	1.828	0.000	2.081	0.000	0.921	0.000	0.000	0.000	0.000	0.000	0.921	0.000	0.000	0.000	0.00313	
477850	3751625	1.700	0.000	1.819	0.000	1.764	0.000	2.004	0.000	0.880	0.000	0.000	0.000	0.000	0.000	0.880	0.000	0.000	0.000	0.00300	
477900	3751625	1.641	0.000	1.753	0.000	1.702	0.000	1.929	0.000	0.842	0.000	0.000	0.000	0.000	0.000	0.842	0.000	0.000	0.000	0.00288	
477950	3751625	1.583	0.000	1.688	0.000	1.640	0.000	1.854	0.000	0.806	0.000	0.000	0.000	0.000	0.000	0.806	0.000	0.000	0.000	0.00276	
477500	3751675	2.277	0.000	2.471	0.000	2.378	0.000	2.739	0.000	1.293	0.000	0.000	0.000	0.000	0.000	1.293	0.000	0.000	0.000	0.00428	

Brodiaea Warehouse Project (Moreno Valley, CA)

Sample Output

Estimation of Chronic Non-Cancer Hazards

Chronic Non-Cancer HI = DPM Concentration / REL for DPM

Cronic Non-Cancer REL fpr DPM 5 ug/m3

X (m)	Y (m)	2018 Onsite-West		2018 Onsite-South		2018 Idle-West		2018 Idle-South		2018 Offsite		2018 Total		2018 Chronic Hazard Index
		Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Unit Emissions (ug/m3)	Actual Emissions (ug/m3)	Actual Emissions (ug/m3)	Actual Emissions (ug/m3)	
477500	3751425.4	1.5070	0.0000	1.6038	0.0000	1.5340	0.0000	1.7343	0.0000	0.9691	0.0001	0.0001	0.0001	0.00002
477550	3751425.4	1.4834	0.0000	1.5784	0.0000	1.5066	0.0000	1.7089	0.0000	0.9353	0.0001	0.0001	0.0001	0.00002
477600	3751425.4	1.4571	0.0000	1.5498	0.0000	1.4786	0.0000	1.6794	0.0000	0.9023	0.0001	0.0001	0.0001	0.00002
477650	3751425.4	1.4303	0.0000	1.5202	0.0000	1.4465	0.0000	1.6483	0.0000	0.8710	0.0001	0.0001	0.0001	0.00002
477700	3751425.4	1.3997	0.0000	1.4865	0.0000	1.4127	0.0000	1.6122	0.0000	0.8399	0.0001	0.0001	0.0001	0.00002
477750	3751425.4	1.3675	0.0000	1.4510	0.0000	1.3776	0.0000	1.5737	0.0000	0.8099	0.0001	0.0001	0.0001	0.00002
477800	3751425.4	1.3341	0.0000	1.4141	0.0000	1.3415	0.0000	1.5334	0.0000	0.7810	0.0001	0.0001	0.0001	0.00002
477850	3751425.4	1.2998	0.0000	1.3763	0.0000	1.3048	0.0000	1.4917	0.0000	0.7532	0.0001	0.0001	0.0001	0.00002
477900	3751425.4	1.2649	0.0000	1.3378	0.0000	1.2683	0.0000	1.4492	0.0000	0.7264	0.0001	0.0001	0.0001	0.00002
477950	3751425.4	1.2301	0.0000	1.2994	0.0000	1.2335	0.0000	1.4066	0.0000	0.7009	0.0001	0.0001	0.0001	0.00002
477500	3751475.4	1.6253	0.0000	1.7353	0.0000	1.6552	0.0000	1.8839	0.0000	1.0226	0.0001	0.0001	0.0001	0.00002
477550	3751475.4	1.5980	0.0000	1.7056	0.0000	1.6233	0.0000	1.8541	0.0000	0.9847	0.0001	0.0001	0.0001	0.00002
477600	3751475.4	1.5676	0.0000	1.6722	0.0000	1.5886	0.0000	1.8194	0.0000	0.9479	0.0001	0.0001	0.0001	0.00002
477650	3751475.4	1.5345	0.0000	1.6357	0.0000	1.5515	0.0000	1.7806	0.0000	0.9123	0.0001	0.0001	0.0001	0.00002
477700	3751475.4	1.4992	0.0000	1.5966	0.0000	1.5126	0.0000	1.7385	0.0000	0.8779	0.0001	0.0001	0.0001	0.00002
477750	3751475.4	1.4622	0.0000	1.5556	0.0000	1.4723	0.0000	1.6938	0.0000	0.8448	0.0001	0.0001	0.0001	0.00002
477800	3751475.4	1.4239	0.0000	1.5132	0.0000	1.4310	0.0000	1.6470	0.0000	0.8130	0.0001	0.0001	0.0001	0.00002
477850	3751475.4	1.3848	0.0000	1.4698	0.0000	1.3893	0.0000	1.5989	0.0000	0.7825	0.0001	0.0001	0.0001	0.00002
477900	3751475.4	1.3452	0.0000	1.4258	0.0000	1.3488	0.0000	1.5500	0.0000	0.7533	0.0001	0.0001	0.0001	0.00002
477950	3751475.4	1.3068	0.0000	1.3832	0.0000	1.3029	0.0000	1.5023	0.0000	0.7258	0.0001	0.0001	0.0001	0.00002
477500	3751525.4	1.7569	0.0000	1.8822	0.0000	1.7897	0.0000	2.0524	0.0000	1.0803	0.0001	0.0001	0.0001	0.00002
477550	3751525.4	1.7250	0.0000	1.8474	0.0000	1.7526	0.0000	2.0172	0.0000	1.0376	0.0001	0.0001	0.0001	0.00002
477600	3751525.4	1.6896	0.0000	1.8083	0.0000	1.7121	0.0000	1.9763	0.0000	0.9964	0.0001	0.0001	0.0001	0.00002
477650	3751525.4	1.6511	0.0000	1.7656	0.0000	1.6690	0.0000	1.9306	0.0000	0.9567	0.0001	0.0001	0.0001	0.00002
477700	3751525.4	1.6102	0.0000	1.7200	0.0000	1.6239	0.0000	1.8810	0.0000	0.9185	0.0001	0.0001	0.0001	0.00002
477750	3751525.4	1.5675	0.0000	1.6724	0.0000	1.5780	0.0000	1.8286	0.0000	0.8819	0.0001	0.0001	0.0001	0.00002
477800	3751525.4	1.5240	0.0000	1.6239	0.0000	1.5306	0.0000	1.7748	0.0000	0.8470	0.0001	0.0001	0.0001	0.00002
477850	3751525.4	1.4792	0.0000	1.5739	0.0000	1.4828	0.0000	1.7189	0.0000	0.8135	0.0001	0.0001	0.0001	0.00002
477900	3751525.4	1.4340	0.0000	1.5235	0.0000	1.4363	0.0000	1.6624	0.0000	0.7816	0.0001	0.0001	0.0001	0.00002
477950	3751525.4	1.3899	0.0000	1.4744	0.0000	1.3816	0.0000	1.6071	0.0000	0.7514	0.0001	0.0001	0.0001	0.00002
477500	3751575.4	1.9062	0.0000	2.0501	0.0000	1.9426	0.0000	2.2463	0.0000	1.1436	0.0001	0.0001	0.0001	0.00002
477550	3751575.4	1.8688	0.0000	2.0090	0.0000	1.8988	0.0000	2.2045	0.0000	1.0955	0.0001	0.0001	0.0001	0.00002
477600	3751575.4	1.8272	0.0000	1.9627	0.0000	1.8513	0.0000	2.1557	0.0000	1.0491	0.0001	0.0001	0.0001	0.00002
477650	3751575.4	1.7822	0.0000	1.9124	0.0000	1.8009	0.0000	2.1013	0.0000	1.0046	0.0001	0.0001	0.0001	0.00002
477700	3751575.4	1.7346	0.0000	1.8590	0.0000	1.7497	0.0000	2.0427	0.0000	0.9620	0.0001	0.0001	0.0001	0.00002
477750	3751575.4	1.6862	0.0000	1.8047	0.0000	1.6966	0.0000	1.9824	0.0000	0.9218	0.0001	0.0001	0.0001	0.00002
477800	3751575.4	1.6360	0.0000	1.7483	0.0000	1.6418	0.0000	1.9193	0.0000	0.8832	0.0001	0.0001	0.0001	0.00002
477850	3751575.4	1.5844	0.0000	1.6904	0.0000	1.5869	0.0000	1.8541	0.0000	0.8463	0.0001	0.0001	0.0001	0.00002
477900	3751575.4	1.5326	0.0000	1.6324	0.0000	1.5325	0.0000	1.7885	0.0000	0.8112	0.0001	0.0001	0.0001	0.00002
477950	3751575.4	1.4811	0.0000	1.5750	0.0000	1.4662	0.0000	1.7233	0.0000	0.7779	0.0001	0.0001	0.0001	0.00002
477500	3751625.4	2.0794	0.0000	2.2460	0.0000	2.1203	0.0000	2.4743	0.0000	1.2146	0.0001	0.0001	0.0001	0.00003
477550	3751625.4	2.0356	0.0000	2.1974	0.0000	2.0671	0.0000	2.4245	0.0000	1.1600	0.0001	0.0001	0.0001	0.00003
477600	3751625.4	1.9852	0.0000	2.1410	0.0000	2.0108	0.0000	2.3644	0.0000	1.1070	0.0001	0.0001	0.0001	0.00002
477650	3751625.4	1.9320	0.0000	2.0811	0.0000	1.9524	0.0000	2.2991	0.0000	1.0568	0.0001	0.0001	0.0001	0.00002
477700	3751625.4	1.8770	0.0000	2.0189	0.0000	1.8907	0.0000	2.2302	0.0000	1.0094	0.0001	0.0001	0.0001	0.00002
477750	3751625.4	1.8189	0.0000	1.9533	0.0000	1.8277	0.0000	2.1566	0.0000	0.9640	0.0001	0.0001	0.0001	0.00002

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Warehouse Project (Moreno Valley, CA)

Sample Output

Estimation of Acute Non-Cancer Hazard Index from Gasoline and Diesel Vehicles

X (m)	Y (m)	Acute Non-Cancer Hazard Index from Gasoline	Acute Non-Cancer Hazard Index from Diesel	Total Acute non-Cancer Hazard Index
477500	3751425.43	0.0000	0.0001	0.00010
477550	3751425.43	0.0000	0.0001	0.00009
477600	3751425.43	0.0000	0.0001	0.00009
477650	3751425.43	0.0000	0.0001	0.00009
477700	3751425.43	0.0000	0.0000	0.00009
477750	3751425.43	0.0000	0.0000	0.00008
477800	3751425.43	0.0000	0.0000	0.00008
477850	3751425.43	0.0000	0.0000	0.00008
477900	3751425.43	0.0000	0.0000	0.00008
477950	3751425.43	0.0000	0.0000	0.00007
477500	3751475.43	0.0000	0.0001	0.00010
477550	3751475.43	0.0000	0.0001	0.00010
477600	3751475.43	0.0000	0.0001	0.00010
477650	3751475.43	0.0000	0.0001	0.00009
477700	3751475.43	0.0000	0.0001	0.00009
477750	3751475.43	0.0000	0.0001	0.00009
477800	3751475.43	0.0000	0.0000	0.00008
477850	3751475.43	0.0000	0.0000	0.00008
477900	3751475.43	0.0000	0.0000	0.00008
477950	3751475.43	0.0000	0.0000	0.00008
477500	3751525.43	0.0000	0.0001	0.00011
477550	3751525.43	0.0000	0.0001	0.00011
477600	3751525.43	0.0000	0.0001	0.00010
477650	3751525.43	0.0000	0.0001	0.00010
477700	3751525.43	0.0000	0.0001	0.00009
477750	3751525.43	0.0000	0.0001	0.00009
477800	3751525.43	0.0000	0.0001	0.00009
477850	3751525.43	0.0000	0.0000	0.00009
477900	3751525.43	0.0000	0.0000	0.00008
477950	3751525.43	0.0000	0.0000	0.00008
477500	3751575.43	0.0001	0.0001	0.00012
477550	3751575.43	0.0000	0.0001	0.00011
477600	3751575.43	0.0000	0.0001	0.00011
477650	3751575.43	0.0000	0.0001	0.00010
477700	3751575.43	0.0000	0.0001	0.00010
477750	3751575.43	0.0000	0.0001	0.00010
477800	3751575.43	0.0000	0.0001	0.00009
477850	3751575.43	0.0000	0.0001	0.00009
477900	3751575.43	0.0000	0.0000	0.00009
477950	3751575.43	0.0000	0.0000	0.00009
477500	3751625.43	0.0001	0.0001	0.00013
477550	3751625.43	0.0001	0.0001	0.00012
477600	3751625.43	0.0000	0.0001	0.00011
477650	3751625.43	0.0000	0.0001	0.00011
477700	3751625.43	0.0000	0.0001	0.00011
477750	3751625.43	0.0000	0.0001	0.00010
477800	3751625.43	0.0000	0.0001	0.00010
477850	3751625.43	0.0000	0.0001	0.00009
477900	3751625.43	0.0000	0.0001	0.00009
477950	3751625.43	0.0000	0.0001	0.00009
477500	3751675.43	0.0001	0.0001	0.00014
477550	3751675.43	0.0001	0.0001	0.00013
477600	3751675.43	0.0001	0.0001	0.00012
477650	3751675.43	0.0000	0.0001	0.00012
477700	3751675.43	0.0000	0.0001	0.00011
477750	3751675.43	0.0000	0.0001	0.00011
477800	3751675.43	0.0000	0.0001	0.00010
477850	3751675.43	0.0000	0.0001	0.00010

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Warehouse Project (Moreno Valley, CA)

Estimate of Acute Non-Cancer Hazard Index - Operation

Diesel Exhaust TOG Profile and Estimate of Acute Non-Cancer Hazard Index
 Only those chemicals that have an acute REL are listed

1-hour TOG_DSL Unit Concentration: 1.00 ug/m3

Toxic Compound	ARB Speciation 818 (%TOG)	Acute REL (ug/m3)	Acute Non-Cancer Hazard Quotient
Acetaldehyde	7.350%	470	1.564E-04
Benzene	2.000%	27	7.407E-04
Formaldehyde	14.710%	55	2.675E-03
Methyl Alcohol	0.030%	28000	1.071E-08
MethlethylKetone	1.480%	13000	1.138E-06
Styrene	0.060%	21000	2.857E-08
Toluene	1.470%	37000	3.973E-07
M-Xylenes	0.610%	22000	2.773E-07
O-Xylene	0.340%	22000	1.545E-07
P-Xylene	0.100%	22000	4.545E-08
1-3 Butadiene	0.190%	660	2.879E-06

Acute Hazard Index from TOG_DSL	0.00358
Acute Hazard REL from TOG_DSL	280

Gasoline Exhaust TOG Profile and Estimate of Acute Non-Cancer Hazard Index
 Only those chemicals that have an acute REL are listed

1-hour TOG_GAS Unit Concentration: 1.00 ug/m3

Toxic Compound	ARB Speciation 2108 (%TOG)	Acute REL (ug/m3)	Acute Non-Cancer Hazard Quotient	
Acetaldehyde	0.28%	470	5.96E-06	5.95745E-08
Acrolein	0.13%	2.5	5.20E-04	0.0000052
Benzene	2.47%	27	9.15E-04	9.14815E-06
Formaldehyde	1.53%	55	2.78E-04	2.78182E-06
Methyl Alcohol	0.12%	28000	4.29E-08	4.28571E-10
MethlethylKetone	0.02%	13000	1.54E-08	1.53846E-10
Styrene	0.12%	21000	5.71E-08	5.71429E-10
Toluene	5.58%	37000	1.51E-06	1.50811E-08
M-Xylene	3.45%	22000	1.57E-06	1.56818E-08
O-Xylene	1.20%	22000	5.45E-07	5.45455E-09
1-3 Butadiene	0.53%	660	8.03E-06	8.0303E-08

Acute Hazard Index TOG_GAS	0.0017	1.73072E-05
Acute Hazard REL from TOG_GAS	581	

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Warehouse Project (Moreno Valley, CA)

Sample Output

Estimation of Acute Non-Cancer Hazard Index - 1 hour Concentrations of TOG from Gasoline Vehicles (TOGG)

Acute Non-Cancer Hazard Index = TOG-1hr / Reference Exposure Level

The composite REL for TOG-Gasoline is 581 ug/m3

Table with 19 columns: X (m), Y (m), Onsite-West Unit Emissions (ug/m3), TOGG Onsite-West Actual Emissions (ug/m3), TOGG Onsite-South Unit Emissions (ug/m3), TOGG Onsite-South Actual Emissions (ug/m3), Idle-West Unit Emissions (ug/m3), TOGG Idle-West Actual Emissions (ug/m3), Idle-South Unit Emissions (ug/m3), TOGG Idle-South Actual Emissions (ug/m3), TOGG Parking Lot Unit Emissions (ug/m3), TOGG Parking Lot Actual Emissions (ug/m3), OFF1 Offsite Unit Emissions (ug/m3), TOGG OFF1 Offsite Actual Emissions (ug/m3), TOGG OFF2 Offsite Unit Emissions (ug/m3), TOGG OFF2 Offsite Actual Emissions (ug/m3), TOGG Total Actual Emissions (ug/m3), TOGG Acute Non-Cancer Hazard Index. Rows list various TOGG IDs and their corresponding emission values.

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea Warehouse Project (Moreno Valley, CA)

Sample Output

Estimation of Acute Non-Cancer Hazard Index - 1 hour Concentrations of TOG from Diesel Vehicles (TOGD)

Acute Non-Cancer Hazard Index = TOG-1hr / Reference Exposure Level

The composite REL for TOG-Gasoline is 280 ug/m3

X (m)	Y (m)	TOGD		TOGD		TOGD		TOGD		TOGD		TOGD		TOGD		TOGD		TOGD		TOGD Acute Non-Cancer Hazard Index
		Onsite-West Unit Emissions (ug/m3)	Onsite-West Actual Emissions (ug/m3)	Onsite-South Unit Emissions (ug/m3)	Onsite-South Actual Emissions (ug/m3)	Idle-West Unit Emissions (ug/m3)	Idle-West Actual Emissions (ug/m3)	Idle-South Unit Emissions (ug/m3)	Idle-South Actual Emissions (ug/m3)	Parking Lot Unit Emissions (ug/m3)	Parking Lot Actual Emissions (ug/m3)	OFF1 Offsite Unit Emissions (ug/m3)	OFF1 Offsite Actual Emissions (ug/m3)	OFF2 Offsite Unit Emissions (ug/m3)	OFF2 Offsite Actual Emissions (ug/m3)	Actual Emissions (ug/m3)	Actual Emissions (ug/m3)			
477500	3751425	11.2297	0.0020	12.0224	0.0011	11.6728	0.0025	13.1525	0.0008	194437.6274	0.0000	4.41427	0.0052	2.63253	0.0035	0.015			0.0001	
477550	3751425	10.4397	0.0018	11.2589	0.0011	10.9133	0.0024	12.8265	0.0008	192747.2791	0.0000	4.43395	0.0053	2.61513	0.0035	0.015			0.0001	
477600	3751425	9.7829	0.0017	10.3058	0.0010	10.0908	0.0022	11.7733	0.0007	189273.1257	0.0000	4.59913	0.0055	2.60239	0.0035	0.015			0.0001	
477650	3751425	9.1323	0.0016	9.6458	0.0009	9.4532	0.0020	10.7788	0.0007	188719.5194	0.0000	4.88118	0.0058	2.57819	0.0035	0.015			0.0001	
477700	3751425	8.9898	0.0014	8.5552	0.0008	8.3995	0.0018	9.8324	0.0006	181763.5311	0.0000	4.8987	0.0058	2.52526	0.0034	0.014			0.0000	
477750	3751425	8.3332	0.0015	8.7723	0.0008	8.5598	0.0019	9.1508	0.0006	178511.782	0.0000	4.67934	0.0055	2.44875	0.0033	0.014			0.0000	
477800	3751425	8.3494	0.0015	8.7671	0.0008	8.5841	0.0019	9.3697	0.0006	175774.2912	0.0000	4.28617	0.0051	2.40477	0.0032	0.013			0.0000	
477850	3751425	8.0184	0.0014	8.3828	0.0008	8.2415	0.0018	9.1417	0.0006	171871.4592	0.0000	4.11214	0.0049	2.37167	0.0032	0.013			0.0000	
477900	3751425	7.7380	0.0014	8.1062	0.0008	7.9498	0.0017	8.7016	0.0005	167074.2345	0.0000	3.99313	0.0047	2.34067	0.0031	0.012			0.0000	
477950	3751425	7.5475	0.0013	7.9418	0.0008	7.7604	0.0017	8.4263	0.0005	165046.2514	0.0000	3.78492	0.0045	2.30947	0.0031	0.012			0.0000	
477500	3751475	12.1193	0.0021	13.0490	0.0012	12.6675	0.0027	14.4301	0.0009	205869.3879	0.0000	4.59882	0.0055	2.76994	0.0037	0.016			0.0001	
477550	3751475	11.1340	0.0020	12.0825	0.0012	11.7097	0.0025	13.9423	0.0009	202863.453	0.0000	4.61475	0.0055	2.76273	0.0037	0.016			0.0001	
477600	3751475	10.3350	0.0018	10.9243	0.0010	10.6864	0.0023	12.6349	0.0008	200460.4309	0.0000	4.85545	0.0058	2.73784	0.0037	0.015			0.0001	
477650	3751475	9.4697	0.0017	10.0308	0.0010	9.8235	0.0021	11.3521	0.0007	197932.8065	0.0000	5.11295	0.0061	2.68917	0.0036	0.015			0.0001	
477700	3751475	8.6895	0.0015	9.1747	0.0009	8.9256	0.0019	10.1688	0.0006	193158.7521	0.0000	5.08435	0.0060	2.61403	0.0035	0.015			0.0001	
477750	3751475	8.9513	0.0016	9.4385	0.0009	9.2109	0.0020	9.9732	0.0006	189304.7037	0.0000	4.80957	0.0057	2.54322	0.0034	0.014			0.0001	
477800	3751475	8.8000	0.0016	9.2461	0.0009	9.0591	0.0020	10.0085	0.0006	184840.0721	0.0000	4.36335	0.0052	2.50746	0.0034	0.014			0.0000	
477850	3751475	8.3349	0.0015	8.7781	0.0008	8.5785	0.0019	9.5513	0.0006	179489.5619	0.0000	4.22506	0.0050	2.47208	0.0033	0.013			0.0000	
477900	3751475	8.1009	0.0014	8.4785	0.0008	8.3260	0.0018	9.2037	0.0006	176947.7356	0.0000	4.06511	0.0048	2.4352	0.0033	0.013			0.0000	
477950	3751475	8.0401	0.0014	8.4458	0.0008	8.2686	0.0018	9.0529	0.0006	171850.6505	0.0000	3.83035	0.0045	2.40917	0.0032	0.012			0.0000	
477500	3751525	13.1458	0.0023	14.2171	0.0014	13.7787	0.0030	15.8824	0.0010	219532.4136	0.0000	4.78629	0.0057	2.93271	0.0039	0.017			0.0001	
477550	3751525	11.9278	0.0021	13.0027	0.0012	12.5815	0.0027	15.1859	0.0009	214861.7688	0.0000	4.79702	0.0057	2.91471	0.0039	0.017			0.0001	
477600	3751525	10.8727	0.0019	11.5340	0.0011	11.2708	0.0024	13.5665	0.0008	211905.0349	0.0000	5.13944	0.0061	2.8716	0.0039	0.016			0.0001	
477650	3751525	9.7914	0.0017	10.4019	0.0010	10.1797	0.0022	11.9355	0.0007	207199.4625	0.0000	5.36511	0.0064	2.79876	0.0038	0.016			0.0001	
477700	3751525	9.4688	0.0017	10.0222	0.0010	9.7474	0.0021	10.4766	0.0006	203133.294	0.0000	5.28181	0.0063	2.70089	0.0036	0.015			0.0001	
477750	3751525	9.5704	0.0017	10.1058	0.0010	9.8651	0.0021	10.8277	0.0007	199891.8028	0.0000	4.94386	0.0059	2.66088	0.0036	0.015			0.0001	
477800	3751525	9.2208	0.0016	9.6906	0.0009	9.5035	0.0021	10.6322	0.0007	194674.3838	0.0000	4.4394	0.0053	2.62134	0.0035	0.014			0.0001	
477850	3751525	8.8469	0.0016	9.3112	0.0009	9.1129	0.0020	10.0702	0.0006	189023.5812	0.0000	4.33526	0.0051	2.58457	0.0035	0.014			0.0000	
477900	3751525	8.6285	0.0015	9.1160	0.0009	8.8931	0.0019	9.7526	0.0006	184873.2665	0.0000	4.13322	0.0049	2.5542	0.0034	0.013			0.0000	
477950	3751525	8.4708	0.0015	9.1025	0.0009	8.7783	0.0019	9.6132	0.0006	179373.8142	0.0000	3.86493	0.0046	2.52467	0.0034	0.013			0.0000	
477500	3751575	14.2843	0.0025	15.5231	0.0015	15.0165	0.0033	17.5367	0.0011	233406.9628	0.0000	4.98848	0.0059	3.11206	0.0042	0.018			0.0001	
477550	3751575	12.7836	0.0023	14.0033	0.0013	13.5250	0.0029	16.5711	0.0010	229360.6026	0.0000	4.99213	0.0059	3.07607	0.0041	0.018			0.0001	
477600	3751575	11.4199	0.0020	12.1607	0.0012	11.8698	0.0026	14.5678	0.0009	228250.3799	0.0000	5.44876	0.0065	3.06684	0.0040	0.017			0.0001	
477650	3751575	10.0880	0.0018	10.7488	0.0010	10.5118	0.0023	12.5191	0.0008	219826.658	0.0000	5.63449	0.0067	2.9027	0.0039	0.016			0.0001	
477700	3751575	10.2820	0.0018	10.9085	0.0010	10.6081	0.0023	11.5270	0.0007	216354.0007	0.0000	5.4874	0.0065	2.83568	0.0038	0.016			0.0001	
477750	3751575	10.1908	0.0018	10.7729	0.0010	10.5224	0.0023	11.7165	0.0007	211112.6201	0.0000	5.07896	0.0060	2.79225	0.0037	0.016			0.0001	
477800	3751575	9.6219	0.0017	10.1907	0.0010	9.9328	0.0022	11.2197	0.0007	204642.9163	0.0000	4.57129	0.0054	2.75848	0.0037	0.015			0.0001	
477850	3751575	9.3147	0.0016	9.8547	0.0009	9.6001	0.0021	10.7316	0.0007	201479.7705	0.0000	4.44303	0.0053	2.72174	0.0036	0.014			0.0001	
477900	3751575	9.2143	0.0016	9.7154	0.0009	9.4987	0.0021	10.5170	0.0007	195341.5202	0.0000	4.19832	0.0050	2.68308	0.0036	0.014			0.0000	
477950	3751575	9.4329	0.0017	10.1110	0.0010	9.7789	0.0021	10.7386	0.0007	188226.81	0.0000	3.89423	0.0046	2.64199	0.0035	0.014			0.0000	
477500	3751625	15.5462	0.0027	16.9844	0.0016	16.3963	0.0036	19.4277	0.0012	250552.2546	0.0000	5.21791	0.0062	3.31551	0.0044	0.020			0.0001	
477550	3751625	13.6995	0.0024	15.0856	0.0014	14.5412	0.0031	18.1128	0.0011	245646.3973	0.0000	5.27082	0.0063	3.25313	0.0044	0.019			0.0001	
477600	3751625	11.9937	0.0021	12.8235	0.0012	12.5023	0.0027	15.6373	0.0010	241433.7868	0.0000	5.78555	0.0069	3.14422	0.0042	0.018			0.0001	
477650	3751625	10.8896	0.0019	11.6013	0.0011	11.2383	0.0024	13.1178	0.0008	234529.1034	0.0000	5.92143	0.0070	3.04057	0.0040	0.017			0.0001	
477700	3751625	11.1477	0.0020	11.8528	0.0011	11.5277	0.0025	12.7318	0.0008	229968.3471	0.0000	5.70004	0.0068	2.99576	0.0040	0.017			0.0001	
477750	3751625	10.7686	0.0019	11.3912	0.0011	11.1362	0.0024	12.5886	0.0008	223329.5474	0.0000	5.21399	0.0062	2.95283	0.0040	0.016			0.0001	
477800	3751625	10.2667	0.0018	10.8676	0.0010	10.6092	0.0023	11.8623	0.0007	216448.9632	0.0000	4.71907	0.0056	2.90829	0.0039	0.015			0.0001	
477850	3751625	10.0113	0.0018	10.6281	0.0010	10.3483	0.0022	11.4882	0.0007	210661.6811	0.0000	4.53649	0.0054	2.8613	0.0038	0.015			0.0001	
477900	3751625	10.0328	0.0018	10.8305	0.0010	10.4297	0.0023	11.4904	0.0007	203619.6724	0.0000	4.25397	0.0050	2.8129	0.0038	0.015			0.0001	
477950	3751625	10.3980	0.0018	11.0976	0.0011	10.7734	0.0023	11.9312	0.0007	198347.1607	0.0000	3.92541	0.0047	2.7609	0.0037	0.014			0.0001	
477500	3751675	16.9492	0.0030	18.6271	0.0018	17.9396	0.0039	21.6053	0.0013	266537.5798	0.0000	5.45915	0.0065	3.52677	0.0047	0.021			0.0001	

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea

Brodiaea_HRA

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 ♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

 **Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 491 Source(s),
 for Total of 1 Urban Area(s):

Urban Population = 2000000.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: UNITEMIS

**Model Calculates 1 Short Term Average(s) of: 1-HR
 and Calculates PERIOD Averages

**This Run Includes: 491 Source(s); 8 Source Group(s); and 1040 Receptor(s)

with: 0 POINT(s), including
 0 POINTCAP(s) and 0 POINTHOR(s)
 and: 490 VOLUME source(s)
 and: 1 AREA type source(s)
 and: 0 LINE source(s)
 and: 0 OPENPIT source(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor
 Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
 Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
 Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
 m for Missing Hours
 b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 250.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
 Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 4.3 MB of RAM.

**Detailed Error/Message File: Brodiaea_HRA.err

**File for Summary of Results: Brodiaea_HRA.sum

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

Brodiaea_HRA

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE RELEASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE (METERS)	EMMISSION RATE SCALAR VARY BY
L0001757	0	0.71429E-01	477340.7	3752542.5	474.0	3.66	1.70	0.85	YES	
L0001758	0	0.71429E-01	477340.7	3752538.8	474.0	3.66	1.70	0.85	YES	
L0001759	0	0.71429E-01	477340.7	3752535.1	474.0	3.66	1.70	0.85	YES	
L0001760	0	0.71429E-01	477340.7	3752531.5	474.0	3.66	1.70	0.85	YES	
L0001761	0	0.71429E-01	477340.7	3752527.8	474.0	3.66	1.70	0.85	YES	
L0001762	0	0.71429E-01	477340.7	3752524.2	474.0	3.66	1.70	0.85	YES	
L0001763	0	0.71429E-01	477340.7	3752520.5	474.0	3.66	1.70	0.85	YES	
L0001764	0	0.71429E-01	477340.7	3752516.9	474.0	3.66	1.70	0.85	YES	
L0001765	0	0.71429E-01	477340.7	3752513.2	474.0	3.66	1.70	0.85	YES	
L0001766	0	0.71429E-01	477340.7	3752509.5	474.0	3.66	1.70	0.85	YES	
L0001767	0	0.71429E-01	477340.7	3752505.9	474.0	3.66	1.70	0.85	YES	
L0001768	0	0.71429E-01	477340.7	3752502.2	473.9	3.66	1.70	0.85	YES	
L0001769	0	0.71429E-01	477340.7	3752498.6	473.7	3.66	1.70	0.85	YES	
L0001770	0	0.71429E-01	477340.7	3752494.9	473.6	3.66	1.70	0.85	YES	
L0001771	0	0.12500E+00	477373.8	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001772	0	0.12500E+00	477377.5	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001773	0	0.12500E+00	477381.2	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001774	0	0.12500E+00	477384.8	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001775	0	0.12500E+00	477388.5	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001776	0	0.12500E+00	477392.1	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001777	0	0.12500E+00	477395.8	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001778	0	0.12500E+00	477399.4	3752457.9	473.0	3.66	1.70	0.85	YES	
L0001779	0	0.71429E-01	477325.5	3752584.5	474.0	3.66	3.40	0.43	YES	
L0001780	0	0.71429E-01	477325.8	3752577.2	474.0	3.66	3.40	0.43	YES	
L0001781	0	0.71429E-01	477326.0	3752569.9	474.0	3.66	3.40	0.43	YES	
L0001782	0	0.71429E-01	477326.3	3752562.6	474.0	3.66	3.40	0.43	YES	
L0001783	0	0.71429E-01	477326.5	3752555.2	474.0	3.66	3.40	0.43	YES	
L0001784	0	0.71429E-01	477326.8	3752547.9	474.0	3.66	3.40	0.43	YES	
L0001785	0	0.71429E-01	477333.5	3752545.4	474.0	3.66	3.40	0.43	YES	
L0001786	0	0.71429E-01	477335.0	3752539.3	474.0	3.66	3.40	0.43	YES	
L0001787	0	0.71429E-01	477335.0	3752532.0	474.0	3.66	3.40	0.43	YES	
L0001788	0	0.71429E-01	477334.9	3752524.6	474.0	3.66	3.40	0.43	YES	
L0001789	0	0.71429E-01	477334.8	3752517.3	474.0	3.66	3.40	0.43	YES	
L0001790	0	0.71429E-01	477334.8	3752510.0	474.0	3.66	3.40	0.43	YES	
L0001791	0	0.71429E-01	477334.7	3752502.7	473.9	3.66	3.40	0.43	YES	
L0001792	0	0.71429E-01	477334.6	3752495.4	473.6	3.66	3.40	0.43	YES	
L0001793	0	0.38462E-01	477325.5	3752584.6	474.0	3.66	3.40	0.43	YES	
L0001794	0	0.38462E-01	477325.6	3752577.3	474.0	3.66	3.40	0.43	YES	
L0001795	0	0.38462E-01	477325.7	3752570.0	474.0	3.66	3.40	0.43	YES	
L0001796	0	0.38462E-01	477325.8	3752562.7	474.0	3.66	3.40	0.43	YES	

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE RELEASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE (METERS)	EMMISSION RATE SCALAR VARY BY
L0001797	0	0.38462E-01	477325.9	3752555.4	474.0	3.66	3.40	0.43	YES	
L0001798	0	0.38462E-01	477326.0	3752548.0	474.0	3.66	3.40	0.43	YES	
L0001799	0	0.38462E-01	477326.1	3752540.7	474.0	3.66	3.40	0.43	YES	
L0001800	0	0.38462E-01	477326.2	3752533.4	474.0	3.66	3.40	0.43	YES	
L0001801	0	0.38462E-01	477326.3	3752526.1	474.0	3.66	3.40	0.43	YES	
L0001802	0	0.38462E-01	477326.4	3752518.8	474.0	3.66	3.40	0.43	YES	
L0001803	0	0.38462E-01	477326.5	3752511.5	474.0	3.66	3.40	0.43	YES	
L0001804	0	0.38462E-01	477326.6	3752504.2	473.9	3.66	3.40	0.43	YES	
L0001805	0	0.38462E-01	477326.7	3752496.8	473.7	3.66	3.40	0.43	YES	
L0001806	0	0.38462E-01	477328.3	3752490.1	473.4	3.66	3.40	0.43	YES	
L0001807	0	0.38462E-01	477333.0	3752484.4	473.3	3.66	3.40	0.43	YES	
L0001808	0	0.38462E-01	477337.7	3752478.8	473.1	3.66	3.40	0.43	YES	
L0001809	0	0.38462E-01	477342.3	3752473.2	473.0	3.66	3.40	0.43	YES	
L0001810	0	0.38462E-01	477347.0	3752467.5	473.0	3.66	3.40	0.43	YES	
L0001811	0	0.38462E-01	477351.6	3752461.9	473.0	3.66	3.40	0.43	YES	
L0001812	0	0.38462E-01	477356.3	3752456.3	473.0	3.66	3.40	0.43	YES	
L0001813	0	0.38462E-01	477362.8	3752454.6	473.0	3.66	3.40	0.43	YES	
L0001814	0	0.38462E-01	477370.2	3752454.6	473.0	3.66	3.40	0.43	YES	
L0001815	0	0.38462E-01	477377.5	3752454.6	473.0	3.66	3.40	0.43	YES	
L0001816	0	0.38462E-01	477384.8	3752454.6	473.0	3.66	3.40	0.43	YES	
L0001817	0	0.38462E-01	477392.1	3752454.6	473.0	3.66	3.40	0.43	YES	

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L0001818	0	0.38462E-01	477399.4	3752454.6	473.0	3.66	3.40	0.43	YES
L0002500	0	0.39526E-02	477316.1	3752602.9	474.2	3.66	6.80	0.43	YES
L0002501	0	0.39526E-02	477301.5	3752603.2	474.2	3.66	6.80	0.43	YES
L0002502	0	0.39526E-02	477286.9	3752603.4	474.1	3.66	6.80	0.43	YES
L0002503	0	0.39526E-02	477272.2	3752603.7	474.0	3.66	6.80	0.43	YES
L0002504	0	0.39526E-02	477257.6	3752604.0	474.0	3.66	6.80	0.43	YES
L0002505	0	0.39526E-02	477243.0	3752604.3	474.0	3.66	6.80	0.43	YES
L0002506	0	0.39526E-02	477228.4	3752604.6	474.0	3.66	6.80	0.43	YES
L0002507	0	0.39526E-02	477213.7	3752604.9	474.0	3.66	6.80	0.43	YES
L0002508	0	0.39526E-02	477199.1	3752605.2	474.0	3.66	6.80	0.43	YES
L0002509	0	0.39526E-02	477184.5	3752605.5	473.9	3.66	6.80	0.43	YES
L0002510	0	0.39526E-02	477169.8	3752605.7	473.5	3.66	6.80	0.43	YES
L0002511	0	0.39526E-02	477155.2	3752606.0	473.3	3.66	6.80	0.43	YES
L0002512	0	0.39526E-02	477153.2	3752593.6	473.0	3.66	6.80	0.43	YES
L0002513	0	0.39526E-02	477153.3	3752578.9	473.0	3.66	6.80	0.43	YES
L0002514	0	0.39526E-02	477153.4	3752564.3	473.0	3.66	6.80	0.43	YES
L0002515	0	0.39526E-02	477153.6	3752549.7	472.9	3.66	6.80	0.43	YES
L0002516	0	0.39526E-02	477153.7	3752535.1	472.8	3.66	6.80	0.43	YES
L0002517	0	0.39526E-02	477153.8	3752520.4	472.8	3.66	6.80	0.43	YES

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17

*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	BASE RELEASE X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY
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L0002518	0	0.39526E-02	477153.9	3752505.8	472.8	3.66	6.80	0.43	YES
L0002519	0	0.39526E-02	477154.1	3752491.2	472.8	3.66	6.80	0.43	YES
L0002520	0	0.39526E-02	477154.2	3752476.5	472.8	3.66	6.80	0.43	YES
L0002521	0	0.39526E-02	477154.3	3752461.9	472.8	3.66	6.80	0.43	YES
L0002522	0	0.39526E-02	477154.4	3752447.3	472.8	3.66	6.80	0.43	YES
L0002523	0	0.39526E-02	477154.6	3752432.6	472.8	3.66	6.80	0.43	YES
L0002524	0	0.39526E-02	477154.7	3752418.0	472.8	3.66	6.80	0.43	YES
L0002525	0	0.39526E-02	477154.8	3752403.4	472.5	3.66	6.80	0.43	YES
L0002526	0	0.39526E-02	477154.9	3752388.8	472.1	3.66	6.80	0.43	YES
L0002527	0	0.39526E-02	477155.1	3752374.1	472.0	3.66	6.80	0.43	YES
L0002528	0	0.39526E-02	477155.2	3752359.5	472.0	3.66	6.80	0.43	YES
L0002529	0	0.39526E-02	477155.3	3752344.9	472.0	3.66	6.80	0.43	YES
L0002530	0	0.39526E-02	477155.4	3752330.2	472.0	3.66	6.80	0.43	YES
L0002531	0	0.39526E-02	477155.6	3752315.6	472.0	3.66	6.80	0.43	YES
L0002532	0	0.39526E-02	477155.7	3752301.0	472.0	3.66	6.80	0.43	YES
L0002533	0	0.39526E-02	477155.8	3752286.4	471.7	3.66	6.80	0.43	YES
L0002534	0	0.39526E-02	477156.0	3752271.7	471.2	3.66	6.80	0.43	YES
L0002535	0	0.39526E-02	477156.1	3752257.1	471.0	3.66	6.80	0.43	YES
L0002536	0	0.39526E-02	477156.2	3752242.5	471.0	3.66	6.80	0.43	YES
L0002537	0	0.39526E-02	477156.3	3752227.8	471.0	3.66	6.80	0.43	YES
L0002538	0	0.39526E-02	477152.7	3752216.9	471.0	3.66	6.80	0.43	YES
L0002539	0	0.39526E-02	477138.1	3752217.0	471.0	3.66	6.80	0.43	YES
L0002540	0	0.39526E-02	477123.4	3752217.1	471.0	3.66	6.80	0.43	YES
L0002541	0	0.39526E-02	477108.8	3752217.2	471.0	3.66	6.80	0.43	YES
L0002542	0	0.39526E-02	477094.2	3752217.2	471.0	3.66	6.80	0.43	YES
L0002543	0	0.39526E-02	477079.6	3752217.3	471.0	3.66	6.80	0.43	YES
L0002544	0	0.39526E-02	477064.9	3752217.4	471.0	3.66	6.80	0.43	YES
L0002545	0	0.39526E-02	477050.3	3752217.5	471.0	3.66	6.80	0.43	YES
L0002546	0	0.39526E-02	477035.7	3752217.5	471.0	3.66	6.80	0.43	YES
L0002547	0	0.39526E-02	477021.0	3752217.6	471.0	3.66	6.80	0.43	YES
L0002548	0	0.39526E-02	477006.4	3752217.7	471.0	3.66	6.80	0.43	YES
L0002549	0	0.39526E-02	476991.8	3752217.8	471.0	3.66	6.80	0.43	YES
L0002550	0	0.39526E-02	476977.1	3752217.8	471.0	3.66	6.80	0.43	YES
L0002551	0	0.39526E-02	476962.5	3752217.9	471.0	3.66	6.80	0.43	YES
L0002552	0	0.39526E-02	476947.9	3752218.0	471.0	3.66	6.80	0.43	YES
L0002553	0	0.39526E-02	476933.2	3752218.1	471.2	3.66	6.80	0.43	YES
L0002554	0	0.39526E-02	476918.6	3752218.2	471.4	3.66	6.80	0.43	YES
L0002555	0	0.39526E-02	476904.0	3752218.2	471.4	3.66	6.80	0.43	YES
L0002556	0	0.39526E-02	476889.4	3752218.3	471.4	3.66	6.80	0.43	YES
L0002557	0	0.39526E-02	476874.7	3752218.4	471.4	3.66	6.80	0.43	YES

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17

*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

Brodiaea_HRA

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	(GRAMS/SEC) X	BASE RELEASE Y	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0002558	0	0.39526E-02	476860.1	3752218.5	471.4	3.66	6.80	0.43	YES
L0002559	0	0.39526E-02	476845.5	3752218.5	471.4	3.66	6.80	0.43	YES
L0002560	0	0.39526E-02	476830.8	3752218.6	471.4	3.66	6.80	0.43	YES
L0002561	0	0.39526E-02	476816.2	3752218.7	471.4	3.66	6.80	0.43	YES
L0002562	0	0.39526E-02	476801.6	3752218.8	471.4	3.66	6.80	0.43	YES
L0002563	0	0.39526E-02	476786.9	3752218.8	471.4	3.66	6.80	0.43	YES
L0002564	0	0.39526E-02	476772.3	3752218.9	471.4	3.66	6.80	0.43	YES
L0002565	0	0.39526E-02	476757.7	3752219.0	471.4	3.66	6.80	0.43	YES
L0002566	0	0.39526E-02	476743.1	3752219.1	471.4	3.66	6.80	0.43	YES
L0002567	0	0.39526E-02	476728.4	3752219.1	471.4	3.66	6.80	0.43	YES
L0002568	0	0.39526E-02	476713.8	3752219.2	471.4	3.66	6.80	0.43	YES
L0002569	0	0.39526E-02	476699.2	3752219.3	471.6	3.66	6.80	0.43	YES
L0002570	0	0.39526E-02	476684.5	3752219.4	471.9	3.66	6.80	0.43	YES
L0002571	0	0.39526E-02	476669.9	3752219.4	472.0	3.66	6.80	0.43	YES
L0002572	0	0.39526E-02	476655.3	3752219.5	472.0	3.66	6.80	0.43	YES
L0002573	0	0.39526E-02	476640.6	3752219.6	472.0	3.66	6.80	0.43	YES
L0002574	0	0.39526E-02	476626.0	3752219.7	472.0	3.66	6.80	0.43	YES
L0002575	0	0.39526E-02	476611.4	3752219.7	472.0	3.66	6.80	0.43	YES
L0002576	0	0.39526E-02	476596.8	3752219.8	472.0	3.66	6.80	0.43	YES
L0002577	0	0.39526E-02	476582.1	3752219.9	472.0	3.66	6.80	0.43	YES
L0002578	0	0.39526E-02	476567.5	3752220.0	472.0	3.66	6.80	0.43	YES
L0002579	0	0.39526E-02	476552.9	3752220.0	472.0	3.66	6.80	0.43	YES
L0002580	0	0.39526E-02	476538.2	3752220.1	472.0	3.66	6.80	0.43	YES
L0002581	0	0.39526E-02	476523.6	3752220.2	472.0	3.66	6.80	0.43	YES
L0002582	0	0.39526E-02	476509.0	3752220.3	472.0	3.66	6.80	0.43	YES
L0002583	0	0.39526E-02	476494.3	3752220.4	472.0	3.66	6.80	0.43	YES
L0002584	0	0.39526E-02	476479.7	3752220.4	472.0	3.66	6.80	0.43	YES
L0002585	0	0.39526E-02	476465.1	3752220.5	472.0	3.66	6.80	0.43	YES
L0002586	0	0.39526E-02	476450.5	3752220.6	472.0	3.66	6.80	0.43	YES
L0002587	0	0.39526E-02	476435.8	3752220.7	472.0	3.66	6.80	0.43	YES
L0002588	0	0.39526E-02	476421.2	3752220.7	472.0	3.66	6.80	0.43	YES
L0002589	0	0.39526E-02	476406.6	3752220.8	472.0	3.66	6.80	0.43	YES
L0002590	0	0.39526E-02	476391.9	3752220.9	472.0	3.66	6.80	0.43	YES
L0002591	0	0.39526E-02	476377.3	3752221.0	472.0	3.66	6.80	0.43	YES
L0002592	0	0.39526E-02	476362.7	3752221.0	472.0	3.66	6.80	0.43	YES
L0002593	0	0.39526E-02	476348.0	3752221.1	472.0	3.66	6.80	0.43	YES
L0002594	0	0.39526E-02	476333.4	3752221.2	472.0	3.66	6.80	0.43	YES
L0002595	0	0.39526E-02	476318.8	3752221.3	472.0	3.66	6.80	0.43	YES
L0002596	0	0.39526E-02	476304.2	3752221.3	472.0	3.66	6.80	0.43	YES
L0002597	0	0.39526E-02	476289.5	3752221.4	472.0	3.66	6.80	0.43	YES

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	(GRAMS/SEC) X	BASE RELEASE Y	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0002598	0	0.39526E-02	476274.9	3752221.5	472.0	3.66	6.80	0.43	YES
L0002599	0	0.39526E-02	476260.3	3752221.6	472.0	3.66	6.80	0.43	YES
L0002600	0	0.39526E-02	476245.6	3752221.6	472.0	3.66	6.80	0.43	YES
L0002601	0	0.39526E-02	476231.0	3752221.7	472.0	3.66	6.80	0.43	YES
L0002602	0	0.39526E-02	476216.4	3752221.8	472.0	3.66	6.80	0.43	YES
L0002603	0	0.39526E-02	476201.7	3752221.9	472.0	3.66	6.80	0.43	YES
L0002604	0	0.39526E-02	476187.1	3752221.9	472.0	3.66	6.80	0.43	YES
L0002605	0	0.39526E-02	476172.5	3752222.0	472.0	3.66	6.80	0.43	YES
L0002606	0	0.39526E-02	476157.8	3752222.1	472.0	3.66	6.80	0.43	YES
L0002607	0	0.39526E-02	476143.2	3752222.2	472.0	3.66	6.80	0.43	YES
L0002608	0	0.39526E-02	476128.6	3752222.2	472.0	3.66	6.80	0.43	YES
L0002609	0	0.39526E-02	476114.0	3752222.3	472.0	3.66	6.80	0.43	YES
L0002610	0	0.39526E-02	476099.3	3752222.4	472.0	3.66	6.80	0.43	YES
L0002611	0	0.39526E-02	476084.7	3752222.5	472.0	3.66	6.80	0.43	YES
L0002612	0	0.39526E-02	476070.1	3752222.6	472.0	3.66	6.80	0.43	YES
L0002613	0	0.39526E-02	476055.4	3752222.6	472.0	3.66	6.80	0.43	YES
L0002614	0	0.39526E-02	476040.8	3752222.7	472.0	3.66	6.80	0.43	YES
L0002615	0	0.39526E-02	476026.2	3752222.8	472.0	3.66	6.80	0.43	YES
L0002616	0	0.39526E-02	476011.5	3752222.9	472.0	3.66	6.80	0.43	YES
L0002617	0	0.39526E-02	475996.9	3752222.9	472.0	3.66	6.80	0.43	YES

Brodiaea_HRA										
L0002618	0	0.39526E-02	475982.3	3752223.0	472.0	3.66	6.80	0.43	YES	
L0002619	0	0.39526E-02	475967.7	3752223.1	472.0	3.66	6.80	0.43	YES	
L0002620	0	0.39526E-02	475953.0	3752223.2	472.0	3.66	6.80	0.43	YES	
L0002621	0	0.39526E-02	475938.4	3752223.2	472.0	3.66	6.80	0.43	YES	
L0002622	0	0.39526E-02	475923.8	3752223.3	472.0	3.66	6.80	0.43	YES	
L0002623	0	0.39526E-02	475909.1	3752223.4	472.0	3.66	6.80	0.43	YES	
L0002624	0	0.39526E-02	475894.5	3752223.5	472.0	3.66	6.80	0.43	YES	
L0002625	0	0.39526E-02	475879.9	3752223.5	472.0	3.66	6.80	0.43	YES	
L0002626	0	0.39526E-02	475865.2	3752223.6	472.0	3.66	6.80	0.43	YES	
L0002627	0	0.39526E-02	475850.6	3752223.7	472.0	3.66	6.80	0.43	YES	
L0002628	0	0.39526E-02	475836.0	3752223.8	472.0	3.66	6.80	0.43	YES	
L0002629	0	0.39526E-02	475821.4	3752223.8	472.0	3.66	6.80	0.43	YES	
L0002630	0	0.39526E-02	475806.7	3752223.9	472.0	3.66	6.80	0.43	YES	
L0002631	0	0.39526E-02	475792.1	3752224.0	472.0	3.66	6.80	0.43	YES	
L0002632	0	0.39526E-02	475777.5	3752224.1	472.0	3.66	6.80	0.43	YES	
L0002633	0	0.39526E-02	475762.8	3752224.1	472.0	3.66	6.80	0.43	YES	
L0002634	0	0.39526E-02	475748.2	3752224.2	472.0	3.66	6.80	0.43	YES	
L0002635	0	0.39526E-02	475733.6	3752224.3	472.0	3.66	6.80	0.43	YES	
L0002636	0	0.39526E-02	475718.9	3752224.4	472.0	3.66	6.80	0.43	YES	
L0002637	0	0.39526E-02	475704.3	3752224.4	472.0	3.66	6.80	0.43	YES	
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17										
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13										
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	CATS.	NUMBER PART.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR	EMISSION RATE VARY BY
L0002638	0	0.39526E-02	475689.7	3752224.5	472.0	3.66	6.80	0.43	YES			
L0002639	0	0.39526E-02	475675.1	3752224.6	472.0	3.66	6.80	0.43	YES			
L0002640	0	0.39526E-02	475660.4	3752224.7	472.0	3.66	6.80	0.43	YES			
L0002641	0	0.39526E-02	475645.8	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002642	0	0.39526E-02	475631.2	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002643	0	0.39526E-02	475616.5	3752224.9	472.0	3.66	6.80	0.43	YES			
L0002644	0	0.39526E-02	475601.9	3752225.0	472.0	3.66	6.80	0.43	YES			
L0002645	0	0.39526E-02	475587.3	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002646	0	0.39526E-02	475572.6	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002647	0	0.39526E-02	475558.0	3752225.2	472.0	3.66	6.80	0.43	YES			
L0002648	0	0.39526E-02	475543.4	3752225.3	472.0	3.66	6.80	0.43	YES			
L0002649	0	0.39526E-02	475528.8	3752225.2	472.0	3.66	6.80	0.43	YES			
L0002650	0	0.39526E-02	475514.1	3752225.2	472.0	3.66	6.80	0.43	YES			
L0002651	0	0.39526E-02	475499.5	3752225.2	472.0	3.66	6.80	0.43	YES			
L0002652	0	0.39526E-02	475484.9	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002653	0	0.39526E-02	475470.2	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002654	0	0.39526E-02	475455.6	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002655	0	0.39526E-02	475441.0	3752225.1	472.0	3.66	6.80	0.43	YES			
L0002656	0	0.39526E-02	475426.3	3752225.0	472.0	3.66	6.80	0.43	YES			
L0002657	0	0.39526E-02	475411.7	3752225.0	472.0	3.66	6.80	0.43	YES			
L0002658	0	0.39526E-02	475397.1	3752225.0	472.0	3.66	6.80	0.43	YES			
L0002659	0	0.39526E-02	475382.4	3752224.9	472.0	3.66	6.80	0.43	YES			
L0002660	0	0.39526E-02	475367.8	3752224.9	472.0	3.66	6.80	0.43	YES			
L0002661	0	0.39526E-02	475353.2	3752224.9	472.0	3.66	6.80	0.43	YES			
L0002662	0	0.39526E-02	475338.6	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002663	0	0.39526E-02	475323.9	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002664	0	0.39526E-02	475309.3	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002665	0	0.39526E-02	475294.7	3752224.8	472.0	3.66	6.80	0.43	YES			
L0002666	0	0.39526E-02	475280.0	3752224.7	472.0	3.66	6.80	0.43	YES			
L0002667	0	0.39526E-02	475265.4	3752224.7	472.0	3.66	6.80	0.43	YES			
L0002668	0	0.39526E-02	475250.8	3752224.7	472.0	3.66	6.80	0.43	YES			
L0002669	0	0.39526E-02	475236.1	3752224.6	472.0	3.66	6.80	0.43	YES			
L0002670	0	0.39526E-02	475221.5	3752224.6	472.0	3.66	6.80	0.43	YES			
L0002671	0	0.39526E-02	475206.9	3752224.6	472.0	3.66	6.80	0.43	YES			
L0002672	0	0.39526E-02	475192.3	3752224.5	472.0	3.66	6.80	0.43	YES			
L0002673	0	0.39526E-02	475177.6	3752224.5	472.0	3.66	6.80	0.43	YES			
L0002674	0	0.39526E-02	475163.0	3752224.5	472.0	3.66	6.80	0.43	YES			
L0002675	0	0.39526E-02	475148.4	3752224.5	472.0	3.66	6.80	0.43	YES			
L0002676	0	0.39526E-02	475133.7	3752224.4	472.0	3.66	6.80	0.43	YES			
L0002677	0	0.39526E-02	475119.1	3752224.4	472.0	3.66	6.80	0.43	YES			
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17												
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13												
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Brodiaea_HRA

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE RELEASE X Y (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION SCALAR VARY BY	RATE
L0002678	0	0.39526E-02	475104.5	3752224.4	472.0	3.66	6.80	0.43	YES
L0002679	0	0.39526E-02	475089.8	3752224.3	472.0	3.66	6.80	0.43	YES
L0002680	0	0.39526E-02	475075.2	3752224.3	472.0	3.66	6.80	0.43	YES
L0002681	0	0.39526E-02	475060.6	3752224.3	472.0	3.66	6.80	0.43	YES
L0002682	0	0.39526E-02	475045.9	3752224.2	472.0	3.66	6.80	0.43	YES
L0002683	0	0.39526E-02	475031.3	3752224.2	472.0	3.66	6.80	0.43	YES
L0002684	0	0.39526E-02	475016.7	3752224.2	472.0	3.66	6.80	0.43	YES
L0002685	0	0.39526E-02	475002.1	3752224.2	472.0	3.66	6.80	0.43	YES
L0002686	0	0.39526E-02	474987.4	3752224.1	472.0	3.66	6.80	0.43	YES
L0002687	0	0.39526E-02	474972.8	3752224.1	472.0	3.66	6.80	0.43	YES
L0002688	0	0.39526E-02	474958.2	3752224.1	472.0	3.66	6.80	0.43	YES
L0002689	0	0.39526E-02	474943.5	3752224.0	472.0	3.66	6.80	0.43	YES
L0002690	0	0.39526E-02	474928.9	3752224.0	472.4	3.66	6.80	0.43	YES
L0002691	0	0.39526E-02	474914.3	3752224.0	472.9	3.66	6.80	0.43	YES
L0002692	0	0.39526E-02	474899.6	3752223.9	473.0	3.66	6.80	0.43	YES
L0002693	0	0.39526E-02	474885.0	3752223.9	473.0	3.66	6.80	0.43	YES
L0002694	0	0.39526E-02	474870.4	3752223.9	472.7	3.66	6.80	0.43	YES
L0002695	0	0.39526E-02	474855.8	3752223.9	472.2	3.66	6.80	0.43	YES
L0002696	0	0.39526E-02	474841.1	3752223.8	472.0	3.66	6.80	0.43	YES
L0002697	0	0.39526E-02	474826.5	3752223.8	472.0	3.66	6.80	0.43	YES
L0002698	0	0.39526E-02	474811.9	3752223.8	472.0	3.66	6.80	0.43	YES
L0002699	0	0.39526E-02	474797.2	3752223.7	472.0	3.66	6.80	0.43	YES
L0002700	0	0.39526E-02	474782.6	3752223.7	472.0	3.66	6.80	0.43	YES
L0002701	0	0.39526E-02	474768.0	3752223.7	472.0	3.66	6.80	0.43	YES
L0002702	0	0.39526E-02	474753.3	3752223.7	472.0	3.66	6.80	0.43	YES
L0002703	0	0.39526E-02	474738.7	3752223.6	472.0	3.66	6.80	0.43	YES
L0002704	0	0.39526E-02	474724.1	3752222.9	472.0	3.66	6.80	0.43	YES
L0002705	0	0.39526E-02	474709.7	3752220.5	472.0	3.66	6.80	0.43	YES
L0002706	0	0.39526E-02	474695.3	3752218.1	472.0	3.66	6.80	0.43	YES
L0002707	0	0.39526E-02	474680.9	3752215.6	472.0	3.66	6.80	0.43	YES
L0002708	0	0.39526E-02	474666.4	3752213.2	472.0	3.66	6.80	0.43	YES
L0002709	0	0.39526E-02	474652.0	3752210.8	472.0	3.66	6.80	0.43	YES
L0002710	0	0.39526E-02	474637.6	3752208.3	472.0	3.66	6.80	0.43	YES
L0002711	0	0.39526E-02	474623.1	3752205.9	472.0	3.66	6.80	0.43	YES
L0002712	0	0.39526E-02	474608.7	3752203.5	472.0	3.66	6.80	0.43	YES
L0002713	0	0.39526E-02	474594.3	3752201.1	472.0	3.66	6.80	0.43	YES
L0002714	0	0.39526E-02	474579.9	3752198.6	472.0	3.66	6.80	0.43	YES
L0002715	0	0.39526E-02	474565.4	3752196.2	472.0	3.66	6.80	0.43	YES
L0002716	0	0.39526E-02	474551.0	3752193.8	472.0	3.66	6.80	0.43	YES
L0002717	0	0.39526E-02	474536.6	3752191.3	472.0	3.66	6.80	0.43	YES

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE RELEASE X Y (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION SCALAR VARY BY	RATE
L0002718	0	0.39526E-02	474522.2	3752188.9	472.0	3.66	6.80	0.43	YES
L0002719	0	0.39526E-02	474507.7	3752186.5	472.0	3.66	6.80	0.43	YES
L0002720	0	0.39526E-02	474493.3	3752184.0	472.0	3.66	6.80	0.43	YES
L0002721	0	0.39526E-02	474478.9	3752181.6	472.0	3.66	6.80	0.43	YES
L0002722	0	0.39526E-02	474464.5	3752179.2	472.0	3.66	6.80	0.43	YES
L0002723	0	0.39526E-02	474450.0	3752176.7	472.0	3.66	6.80	0.43	YES
L0002724	0	0.39526E-02	474435.6	3752174.3	472.1	3.66	6.80	0.43	YES
L0002725	0	0.39526E-02	474421.2	3752171.9	472.2	3.66	6.80	0.43	YES
L0002726	0	0.39526E-02	474406.7	3752169.4	472.2	3.66	6.80	0.43	YES
L0002727	0	0.39526E-02	474392.3	3752167.0	472.2	3.66	6.80	0.43	YES
L0002728	0	0.39526E-02	474377.9	3752164.6	472.0	3.66	6.80	0.43	YES
L0002729	0	0.39526E-02	474363.5	3752162.1	472.0	3.66	6.80	0.43	YES
L0002730	0	0.39526E-02	474349.0	3752159.7	472.1	3.66	6.80	0.43	YES
L0002731	0	0.39526E-02	474334.6	3752157.3	472.2	3.66	6.80	0.43	YES
L0002732	0	0.39526E-02	474320.2	3752154.8	472.0	3.66	6.80	0.43	YES
L0002733	0	0.39526E-02	474305.8	3752152.4	471.7	3.66	6.80	0.43	YES
L0002734	0	0.39526E-02	474291.3	3752150.0	471.3	3.66	6.80	0.43	YES
L0002735	0	0.39526E-02	474276.9	3752147.5	470.9	3.66	6.80	0.43	YES
L0002736	0	0.39526E-02	474262.5	3752145.1	470.4	3.66	6.80	0.43	YES

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L0002737	0	0.39526E-02	474248.1	3752142.7	470.0	3.66	6.80	0.43	YES		
L0002738	0	0.39526E-02	474233.6	3752140.2	470.0	3.66	6.80	0.43	YES		
L0002739	0	0.39526E-02	474219.2	3752137.8	470.0	3.66	6.80	0.43	YES		
L0002740	0	0.39526E-02	474204.8	3752135.4	470.0	3.66	6.80	0.43	YES		
L0002741	0	0.39526E-02	474190.3	3752132.9	470.0	3.66	6.80	0.43	YES		
L0002742	0	0.39526E-02	474175.9	3752130.5	470.0	3.66	6.80	0.43	YES		
L0002743	0	0.39526E-02	474161.5	3752128.1	470.0	3.66	6.80	0.43	YES		
L0002744	0	0.39526E-02	474147.1	3752125.6	470.0	3.66	6.80	0.43	YES		
L0002745	0	0.39526E-02	474132.6	3752123.2	470.0	3.66	6.80	0.43	YES		
L0002746	0	0.39526E-02	474118.2	3752120.8	470.0	3.66	6.80	0.43	YES		
L0002747	0	0.39526E-02	474103.8	3752118.3	470.0	3.66	6.80	0.43	YES		
L0002748	0	0.39526E-02	474089.4	3752115.9	470.0	3.66	6.80	0.43	YES		
L0002749	0	0.39526E-02	474074.9	3752113.5	470.0	3.66	6.80	0.43	YES		
L0002750	0	0.39526E-02	474060.5	3752111.0	470.0	3.66	6.80	0.43	YES		
L0002751	0	0.39526E-02	474046.1	3752108.6	470.0	3.66	6.80	0.43	YES		
L0002752	0	0.39526E-02	474031.7	3752106.2	470.0	3.66	6.80	0.43	YES		
L0002325	0	0.57143E-02	477333.7	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002326	0	0.57143E-02	477352.0	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002327	0	0.57143E-02	477370.3	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002328	0	0.57143E-02	477388.6	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002329	0	0.57143E-02	477406.9	3752602.9	474.2	1.00	8.51	0.23	YES		
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17											
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13											
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN											

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	BASE RELEASE X (METERS)	INIT. Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE (METERS)	EMISSION RATE SCALAR	VARY BY
L0002330	0	0.57143E-02	477425.2	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002331	0	0.57143E-02	477443.5	3752602.9	474.2	1.00	8.51	0.23	YES		
L0002332	0	0.57143E-02	477461.8	3752602.9	474.3	1.00	8.51	0.23	YES		
L0002333	0	0.57143E-02	477480.0	3752603.0	474.7	1.00	8.51	0.23	YES		
L0002334	0	0.57143E-02	477479.9	3752621.3	474.9	1.00	8.51	0.23	YES		
L0002335	0	0.57143E-02	477479.8	3752639.5	475.0	1.00	8.51	0.23	YES		
L0002336	0	0.57143E-02	477479.8	3752657.8	475.0	1.00	8.51	0.23	YES		
L0002337	0	0.57143E-02	477479.7	3752676.1	475.0	1.00	8.51	0.23	YES		
L0002338	0	0.57143E-02	477479.6	3752694.4	475.0	1.00	8.51	0.23	YES		
L0002339	0	0.57143E-02	477479.5	3752712.7	475.0	1.00	8.51	0.23	YES		
L0002340	0	0.57143E-02	477479.4	3752731.0	475.3	1.00	8.51	0.23	YES		
L0002341	0	0.57143E-02	477479.4	3752749.3	475.7	1.00	8.51	0.23	YES		
L0002342	0	0.57143E-02	477479.3	3752767.6	475.7	1.00	8.51	0.23	YES		
L0002343	0	0.57143E-02	477479.2	3752785.9	475.8	1.00	8.51	0.23	YES		
L0002344	0	0.57143E-02	477479.1	3752804.1	476.0	1.00	8.51	0.23	YES		
L0002345	0	0.57143E-02	477479.1	3752822.4	476.0	1.00	8.51	0.23	YES		
L0002346	0	0.57143E-02	477479.0	3752840.7	476.1	1.00	8.51	0.23	YES		
L0002347	0	0.57143E-02	477478.9	3752859.0	476.8	1.00	8.51	0.23	YES		
L0002348	0	0.57143E-02	477478.8	3752877.3	477.0	1.00	8.51	0.23	YES		
L0002349	0	0.57143E-02	477478.7	3752895.6	477.0	1.00	8.51	0.23	YES		
L0002350	0	0.57143E-02	477478.7	3752913.9	477.0	1.00	8.51	0.23	YES		
L0002351	0	0.57143E-02	477478.6	3752932.2	477.0	1.00	8.51	0.23	YES		
L0002352	0	0.57143E-02	477478.5	3752950.4	477.0	1.00	8.51	0.23	YES		
L0002353	0	0.57143E-02	477478.4	3752968.7	477.4	1.00	8.51	0.23	YES		
L0002354	0	0.57143E-02	477478.4	3752987.0	478.0	1.00	8.51	0.23	YES		
L0002355	0	0.57143E-02	477478.3	3753005.3	478.0	1.00	8.51	0.23	YES		
L0002356	0	0.57143E-02	477478.2	3753023.6	478.0	1.00	8.51	0.23	YES		
L0002357	0	0.57143E-02	477478.1	3753041.9	478.0	1.00	8.51	0.23	YES		
L0002358	0	0.57143E-02	477478.1	3753060.2	478.0	1.00	8.51	0.23	YES		
L0002359	0	0.57143E-02	477478.0	3753078.5	478.1	1.00	8.51	0.23	YES		
L0002360	0	0.57143E-02	477477.9	3753096.7	478.7	1.00	8.51	0.23	YES		
L0002361	0	0.57143E-02	477477.8	3753115.0	479.0	1.00	8.51	0.23	YES		
L0002362	0	0.57143E-02	477477.7	3753133.3	479.0	1.00	8.51	0.23	YES		
L0002363	0	0.57143E-02	477477.7	3753151.6	479.0	1.00	8.51	0.23	YES		
L0002364	0	0.57143E-02	477477.6	3753169.9	479.0	1.00	8.51	0.23	YES		
L0002365	0	0.57143E-02	477477.5	3753188.2	479.0	1.00	8.51	0.23	YES		
L0002366	0	0.57143E-02	477477.4	3753206.5	479.3	1.00	8.51	0.23	YES		
L0002367	0	0.57143E-02	477477.4	3753224.8	479.9	1.00	8.51	0.23	YES		
L0002368	0	0.57143E-02	477477.3	3753243.0	480.0	1.00	8.51	0.23	YES		
L0002369	0	0.57143E-02	477477.2	3753261.3	480.0	1.00	8.51	0.23	YES		
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17											
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13											
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN											

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*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION RATE SCALAR VARY BY
L0002370	0	0.57143E-02	477477.1	3753279.6	480.0	1.00	8.51	0.23	YES	
L0002371	0	0.57143E-02	477477.0	3753297.9	480.4	1.00	8.51	0.23	YES	
L0002372	0	0.57143E-02	477477.0	3753316.2	481.0	1.00	8.51	0.23	YES	
L0002373	0	0.57143E-02	477476.9	3753334.5	481.0	1.00	8.51	0.23	YES	
L0002374	0	0.57143E-02	477476.8	3753352.8	481.1	1.00	8.51	0.23	YES	
L0002375	0	0.57143E-02	477476.7	3753371.1	481.4	1.00	8.51	0.23	YES	
L0002376	0	0.57143E-02	477476.7	3753389.4	481.7	1.00	8.51	0.23	YES	
L0002377	0	0.57143E-02	477476.6	3753407.6	482.0	1.00	8.51	0.23	YES	
L0002378	0	0.57143E-02	477476.5	3753425.9	482.0	1.00	8.51	0.23	YES	
L0002379	0	0.57143E-02	477476.4	3753444.2	482.0	1.00	8.51	0.23	YES	
L0002380	0	0.57143E-02	477476.4	3753462.5	482.0	1.00	8.51	0.23	YES	
L0002381	0	0.57143E-02	477476.3	3753480.8	482.0	1.00	8.51	0.23	YES	
L0002382	0	0.57143E-02	477476.2	3753499.1	482.0	1.00	8.51	0.23	YES	
L0002383	0	0.57143E-02	477476.1	3753517.4	482.0	1.00	8.51	0.23	YES	
L0002384	0	0.57143E-02	477476.0	3753535.7	482.0	1.00	8.51	0.23	YES	
L0002385	0	0.57143E-02	477476.0	3753553.9	482.0	1.00	8.51	0.23	YES	
L0002386	0	0.57143E-02	477475.9	3753572.2	482.0	1.00	8.51	0.23	YES	
L0002387	0	0.57143E-02	477475.8	3753590.5	482.0	1.00	8.51	0.23	YES	
L0002388	0	0.57143E-02	477475.7	3753608.8	482.0	1.00	8.51	0.23	YES	
L0002389	0	0.57143E-02	477475.7	3753627.1	482.0	1.00	8.51	0.23	YES	
L0002390	0	0.57143E-02	477475.6	3753645.4	482.0	1.00	8.51	0.23	YES	
L0002391	0	0.57143E-02	477475.5	3753663.7	482.0	1.00	8.51	0.23	YES	
L0002392	0	0.57143E-02	477475.4	3753682.0	482.1	1.00	8.51	0.23	YES	
L0002393	0	0.57143E-02	477475.3	3753700.2	482.4	1.00	8.51	0.23	YES	
L0002394	0	0.57143E-02	477475.3	3753718.5	482.7	1.00	8.51	0.23	YES	
L0002395	0	0.57143E-02	477475.2	3753736.8	483.0	1.00	8.51	0.23	YES	
L0002396	0	0.57143E-02	477475.1	3753755.1	483.6	1.00	8.51	0.23	YES	
L0002397	0	0.57143E-02	477475.0	3753773.4	484.0	1.00	8.51	0.23	YES	
L0002398	0	0.57143E-02	477475.0	3753791.7	484.0	1.00	8.51	0.23	YES	
L0002399	0	0.57143E-02	477474.9	3753810.0	484.2	1.00	8.51	0.23	YES	
L0002400	0	0.57143E-02	477474.8	3753828.3	484.5	1.00	8.51	0.23	YES	
L0002401	0	0.57143E-02	477474.7	3753846.5	484.8	1.00	8.51	0.23	YES	
L0002402	0	0.57143E-02	477474.7	3753864.8	485.0	1.00	8.51	0.23	YES	
L0002403	0	0.57143E-02	477474.6	3753883.1	485.0	1.00	8.51	0.23	YES	
L0002404	0	0.57143E-02	477474.5	3753901.4	485.5	1.00	8.51	0.23	YES	
L0002405	0	0.57143E-02	477474.4	3753919.7	486.0	1.00	8.51	0.23	YES	
L0002406	0	0.57143E-02	477474.3	3753938.0	486.0	1.00	8.51	0.23	YES	
L0002407	0	0.57143E-02	477474.3	3753956.3	486.0	1.00	8.51	0.23	YES	
L0002408	0	0.57143E-02	477474.2	3753974.6	486.0	1.00	8.51	0.23	YES	
L0002409	0	0.57143E-02	477474.1	3753992.8	486.5	1.00	8.51	0.23	YES	

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION RATE SCALAR VARY BY
L0002410	0	0.57143E-02	477474.0	3754011.1	487.0	1.00	8.51	0.23	YES	
L0002411	0	0.57143E-02	477474.0	3754029.4	487.0	1.00	8.51	0.23	YES	
L0002412	0	0.57143E-02	477473.9	3754047.7	487.4	1.00	8.51	0.23	YES	
L0002413	0	0.57143E-02	477473.8	3754066.0	488.0	1.00	8.51	0.23	YES	
L0002414	0	0.57143E-02	477473.7	3754084.3	488.0	1.00	8.51	0.23	YES	
L0002415	0	0.57143E-02	477473.6	3754102.6	488.0	1.00	8.51	0.23	YES	
L0002416	0	0.57143E-02	477473.6	3754120.9	488.0	1.00	8.51	0.23	YES	
L0002417	0	0.57143E-02	477473.5	3754139.2	488.0	1.00	8.51	0.23	YES	
L0002418	0	0.57143E-02	477473.4	3754157.4	488.0	1.00	8.51	0.23	YES	
L0002419	0	0.57143E-02	477473.3	3754175.7	488.0	1.00	8.51	0.23	YES	
L0002420	0	0.57143E-02	477473.3	3754194.0	488.1	1.00	8.51	0.23	YES	
L0002421	0	0.57143E-02	477473.2	3754212.3	488.5	1.00	8.51	0.23	YES	
L0002422	0	0.57143E-02	477473.1	3754230.6	488.8	1.00	8.51	0.23	YES	
L0002423	0	0.57143E-02	477473.0	3754248.9	489.1	1.00	8.51	0.23	YES	
L0002424	0	0.57143E-02	477473.0	3754267.2	489.7	1.00	8.51	0.23	YES	
L0002425	0	0.57143E-02	477472.9	3754285.5	490.0	1.00	8.51	0.23	YES	
L0002426	0	0.57143E-02	477472.8	3754303.7	490.0	1.00	8.51	0.23	YES	
L0002427	0	0.57143E-02	477472.7	3754322.0	490.3	1.00	8.51	0.23	YES	

Brodiaea_HRA										
L0002428	0	0.57143E-02	477472.6	3754340.3	490.6	1.00	8.51	0.23	YES	
L0002429	0	0.57143E-02	477472.6	3754358.6	490.9	1.00	8.51	0.23	YES	
L0002430	0	0.57143E-02	477472.5	3754376.9	491.0	1.00	8.51	0.23	YES	
L0002431	0	0.57143E-02	477472.4	3754395.2	491.0	1.00	8.51	0.23	YES	
L0002432	0	0.57143E-02	477472.3	3754413.5	491.0	1.00	8.51	0.23	YES	
L0002433	0	0.57143E-02	477472.3	3754431.8	491.0	1.00	8.51	0.23	YES	
L0002434	0	0.57143E-02	477472.2	3754450.0	491.0	1.00	8.51	0.23	YES	
L0002435	0	0.57143E-02	477472.1	3754468.3	491.0	1.00	8.51	0.23	YES	
L0002436	0	0.57143E-02	477472.0	3754486.6	491.0	1.00	8.51	0.23	YES	
L0002437	0	0.57143E-02	477471.9	3754504.9	491.0	1.00	8.51	0.23	YES	
L0002438	0	0.57143E-02	477471.9	3754523.2	491.1	1.00	8.51	0.23	YES	
L0002439	0	0.57143E-02	477471.8	3754541.5	491.5	1.00	8.51	0.23	YES	
L0002440	0	0.57143E-02	477471.7	3754559.8	491.8	1.00	8.51	0.23	YES	
L0002441	0	0.57143E-02	477471.6	3754578.1	492.0	1.00	8.51	0.23	YES	
L0002442	0	0.57143E-02	477471.6	3754596.3	492.0	1.00	8.51	0.23	YES	
L0002443	0	0.57143E-02	477471.5	3754614.6	492.0	1.00	8.51	0.23	YES	
L0002444	0	0.57143E-02	477471.4	3754632.9	492.0	1.00	8.51	0.23	YES	
L0002445	0	0.57143E-02	477471.3	3754651.2	492.3	1.00	8.51	0.23	YES	
L0002446	0	0.57143E-02	477471.3	3754669.5	492.7	1.00	8.51	0.23	YES	
L0002447	0	0.57143E-02	477471.2	3754687.8	492.9	1.00	8.51	0.23	YES	
L0002448	0	0.57143E-02	477471.1	3754706.1	493.0	1.00	8.51	0.23	YES	
L0002449	0	0.57143E-02	477471.0	3754724.4	493.0	1.00	8.51	0.23	YES	

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

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*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE RELEASE ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	SZ (METERS)	URBAN SOURCE SCALAR VARY BY
L0002450	0	0.57143E-02	477470.9	3754742.7	493.5	1.00	8.51	0.23	YES
L0002451	0	0.57143E-02	477470.9	3754760.9	494.0	1.00	8.51	0.23	YES
L0002452	0	0.57143E-02	477470.8	3754779.2	494.0	1.00	8.51	0.23	YES
L0002453	0	0.57143E-02	477470.7	3754797.5	494.0	1.00	8.51	0.23	YES
L0002454	0	0.57143E-02	477470.6	3754815.8	494.0	1.00	8.51	0.23	YES
L0002455	0	0.57143E-02	477470.6	3754834.1	494.0	1.00	8.51	0.23	YES
L0002456	0	0.57143E-02	477470.5	3754852.4	494.0	1.00	8.51	0.23	YES
L0002457	0	0.57143E-02	477470.4	3754870.7	494.0	1.00	8.51	0.23	YES
L0002458	0	0.57143E-02	477470.3	3754889.0	494.0	1.00	8.51	0.23	YES
L0002459	0	0.57143E-02	477470.2	3754907.2	494.0	1.00	8.51	0.23	YES
L0002460	0	0.57143E-02	477470.2	3754925.5	494.0	1.00	8.51	0.23	YES
L0002461	0	0.57143E-02	477470.1	3754943.8	494.2	1.00	8.51	0.23	YES
L0002462	0	0.57143E-02	477470.0	3754962.1	494.6	1.00	8.51	0.23	YES
L0002463	0	0.57143E-02	477469.9	3754980.4	494.8	1.00	8.51	0.23	YES
L0002464	0	0.57143E-02	477469.9	3754998.7	495.0	1.00	8.51	0.23	YES
L0002465	0	0.57143E-02	477469.8	3755017.0	495.0	1.00	8.51	0.23	YES
L0002466	0	0.57143E-02	477469.7	3755035.3	495.3	1.00	8.51	0.23	YES
L0002467	0	0.57143E-02	477469.6	3755053.5	495.9	1.00	8.51	0.23	YES
L0002468	0	0.57143E-02	477469.6	3755071.8	496.0	1.00	8.51	0.23	YES
L0002469	0	0.57143E-02	477469.5	3755090.1	496.1	1.00	8.51	0.23	YES
L0002470	0	0.57143E-02	477469.4	3755108.4	496.7	1.00	8.51	0.23	YES
L0002471	0	0.57143E-02	477469.3	3755126.7	497.0	1.00	8.51	0.23	YES
L0002472	0	0.57143E-02	477469.2	3755145.0	497.0	1.00	8.51	0.23	YES
L0002473	0	0.57143E-02	477469.2	3755163.3	497.0	1.00	8.51	0.23	YES
L0002474	0	0.57143E-02	477469.1	3755181.6	497.0	1.00	8.51	0.23	YES
L0002475	0	0.57143E-02	477469.0	3755199.8	497.0	1.00	8.51	0.23	YES
L0002476	0	0.57143E-02	477468.9	3755218.1	497.0	1.00	8.51	0.23	YES
L0002477	0	0.57143E-02	477468.9	3755236.4	497.0	1.00	8.51	0.23	YES
L0002478	0	0.57143E-02	477468.8	3755254.7	497.0	1.00	8.51	0.23	YES
L0002479	0	0.57143E-02	477468.7	3755273.0	497.2	1.00	8.51	0.23	YES
L0002480	0	0.57143E-02	477468.6	3755291.3	497.8	1.00	8.51	0.23	YES
L0002481	0	0.57143E-02	477468.5	3755309.6	498.0	1.00	8.51	0.23	YES
L0002482	0	0.57143E-02	477468.5	3755327.9	498.0	1.00	8.51	0.23	YES
L0002483	0	0.57143E-02	477468.4	3755346.1	498.0	1.00	8.51	0.23	YES
L0002484	0	0.57143E-02	477468.3	3755364.4	498.0	1.00	8.51	0.23	YES
L0002485	0	0.57143E-02	477468.2	3755382.7	498.0	1.00	8.51	0.23	YES
L0002486	0	0.57143E-02	477468.2	3755401.0	498.0	1.00	8.51	0.23	YES
L0002487	0	0.57143E-02	477468.1	3755419.3	498.1	1.00	8.51	0.23	YES
L0002488	0	0.57143E-02	477468.0	3755437.6	498.7	1.00	8.51	0.23	YES
L0002489	0	0.57143E-02	477467.9	3755455.9	499.0	1.00	8.51	0.23	YES

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Brodiaea_HRA

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0002490	0	0.57143E-02	477467.9	3755474.2	499.0	1.00	8.51	0.23	YES	
L0002491	0	0.57143E-02	477467.8	3755492.5	499.0	1.00	8.51	0.23	YES	
L0002492	0	0.57143E-02	477467.7	3755510.7	499.0	1.00	8.51	0.23	YES	
L0002493	0	0.57143E-02	477467.6	3755529.0	499.0	1.00	8.51	0.23	YES	
L0002494	0	0.57143E-02	477467.5	3755547.3	499.4	1.00	8.51	0.23	YES	
L0002495	0	0.57143E-02	477467.5	3755565.6	500.0	1.00	8.51	0.23	YES	
L0002496	0	0.57143E-02	477467.4	3755583.9	500.0	1.00	8.51	0.23	YES	
L0002497	0	0.57143E-02	477467.3	3755602.2	500.0	1.00	8.51	0.23	YES	
L0002498	0	0.57143E-02	477467.2	3755620.5	500.0	1.00	8.51	0.23	YES	
L0002499	0	0.57143E-02	477467.2	3755638.8	500.0	1.00	8.51	0.23	YES	

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** AREAPOLY SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METER**2)	LOCATION OF AREA X (METERS)	BASE Y (METERS)	RELEASE ELEV. (METERS)	NUMBER OF VERTS. (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
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PARKINGLOT 0 0.10000E+01 477243.0 3752586.1 473.9 1.00 5 0.00 YES
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

- IDLE_WES L0001757 , L0001758 , L0001759 , L0001760 , L0001761 , L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 , L0001770 ,
- OFF1 L0002325 , L0002326 , L0002327 , L0002328 , L0002329 , L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 , L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 , L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , L0002353 , L0002354 , L0002355 , L0002356 , L0002357 , L0002358 , L0002359 , L0002360 , L0002361 , L0002362 , L0002363 , L0002364 , L0002365 , L0002366 , L0002367 , L0002368 , L0002369 , L0002370 , L0002371 , L0002372 , L0002373 , L0002374 , L0002375 , L0002376 , L0002377 , L0002378 , L0002379 , L0002380 , L0002381 , L0002382 , L0002383 , L0002384 , L0002385 , L0002386 , L0002387 , L0002388 , L0002389 , L0002390 , L0002391 , L0002392 , L0002393 , L0002394 , L0002395 , L0002396 , L0002397 , L0002398 , L0002399 , L0002400 , L0002401 , L0002402 , L0002403 , L0002404 , L0002405 , L0002406 , L0002407 , L0002408 , L0002409 , L0002410 , L0002411 , L0002412 , L0002413 , L0002414 , L0002415 , L0002416 , L0002417 , L0002418 , L0002419 , L0002420 , L0002421 , L0002422 , L0002423 , L0002424 , L0002425 , L0002426 , L0002427 , L0002428 , L0002429 , L0002430 , L0002431 , L0002432 , L0002433 , L0002434 , L0002435 , L0002436 , L0002437 , L0002438 , L0002439 , L0002440 , L0002441 , L0002442 , L0002443 , L0002444 ,

Brodiaea_HRA

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 L0002461 , L0002462 , L0002463 , L0002464 , L0002465 , L0002466 , L0002467 , L0002468 ,
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0002493	, L0002494 , L0002495 , L0002496 , L0002497 , L0002498 , L0002499 ,
OFF2	L0002500 , L0002501 , L0002502 , L0002503 , L0002504 , L0002505 , L0002506 , L0002507 ,
L0002508	, L0002509 , L0002510 , L0002511 , L0002512 , L0002513 , L0002514 , L0002515 ,
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L0002540	, L0002541 , L0002542 , L0002543 , L0002544 , L0002545 , L0002546 , L0002547 ,
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♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17	
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) ***	23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0002660	, L0002661 , L0002662 , L0002663 , L0002664 , L0002665 , L0002666 , L0002667 ,
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L0002676 , L0002677 , L0002678 , L0002679 , L0002680 , L0002681 , L0002682 , L0002683 ,
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ONSOUTH L0001793 , L0001794 , L0001795 , L0001796 , L0001797 , L0001798 , L0001799 , L0001800 ,
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L0001817 , L0001818 ,

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

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PARKINGL PARKINGLOT ,

SOUTHIDL L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 , L0001778 ,

ALL L0001757 , L0001758 , L0001759 , L0001760 , L0001761 , L0001762 , L0001763 , L0001764 ,
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L0001797 , L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 ,
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L0002526 , L0002527 , L0002528 , L0002529 , L0002530 , L0002531 , L0002532 , L0002533 ,
L0002534 , L0002535 , L0002536 , L0002537 , L0002538 , L0002539 , L0002540 , L0002541 ,
L0002542 , L0002543 , L0002544 , L0002545 , L0002546 , L0002547 , L0002548 , L0002549 ,
L0002550 , L0002551 , L0002552 , L0002553 , L0002554 , L0002555 , L0002556 , L0002557 ,
L0002558 , L0002559 , L0002560 , L0002561 , L0002562 , L0002563 , L0002564 , L0002565 ,

♀ *** AERMOD - VERSION 15181 *** Brodiaea_HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
L0002566	L0002567	L0002568	L0002569	L0002570	L0002571	L0002572	L0002573	
L0002574	L0002575	L0002576	L0002577	L0002578	L0002579	L0002580	L0002581	
L0002582	L0002583	L0002584	L0002585	L0002586	L0002587	L0002588	L0002589	
L0002590	L0002591	L0002592	L0002593	L0002594	L0002595	L0002596	L0002597	
L0002598	L0002599	L0002600	L0002601	L0002602	L0002603	L0002604	L0002605	
L0002606	L0002607	L0002608	L0002609	L0002610	L0002611	L0002612	L0002613	
L0002614	L0002615	L0002616	L0002617	L0002618	L0002619	L0002620	L0002621	
L0002622	L0002623	L0002624	L0002625	L0002626	L0002627	L0002628	L0002629	
L0002630	L0002631	L0002632	L0002633	L0002634	L0002635	L0002636	L0002637	
L0002638	L0002639	L0002640	L0002641	L0002642	L0002643	L0002644	L0002645	
L0002646	L0002647	L0002648	L0002649	L0002650	L0002651	L0002652	L0002653	
L0002654	L0002655	L0002656	L0002657	L0002658	L0002659	L0002660	L0002661	
L0002662	L0002663	L0002664	L0002665	L0002666	L0002667	L0002668	L0002669	
L0002670	L0002671	L0002672	L0002673	L0002674	L0002675	L0002676	L0002677	
L0002678	L0002679	L0002680	L0002681	L0002682	L0002683	L0002684	L0002685	
L0002686	L0002687	L0002688	L0002689	L0002690	L0002691	L0002692	L0002693	
L0002694	L0002695	L0002696	L0002697	L0002698	L0002699	L0002700	L0002701	
L0002702	L0002703	L0002704	L0002705	L0002706	L0002707	L0002708	L0002709	
L0002710	L0002711	L0002712	L0002713	L0002714	L0002715	L0002716	L0002717	
L0002718	L0002719	L0002720	L0002721	L0002722	L0002723	L0002724	L0002725	

♀ *** AERMOD - VERSION 15181 *** Brodiaea_HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
L0002726	L0002727	L0002728	L0002729	L0002730	L0002731	L0002732	L0002733	
L0002734	L0002735	L0002736	L0002737	L0002738	L0002739	L0002740	L0002741	
L0002742	L0002743	L0002744	L0002745	L0002746	L0002747	L0002748	L0002749	
L0002750	L0002751	L0002752	PARKINGLOT	L0002325	L0002326	L0002327	L0002328	
L0002329	L0002330	L0002331	L0002332	L0002333	L0002334	L0002335	L0002336	
L0002337	L0002338	L0002339	L0002340	L0002341	L0002342	L0002343	L0002344	
L0002345	L0002346	L0002347	L0002348	L0002349	L0002350	L0002351	L0002352	
L0002353	L0002354	L0002355	L0002356	L0002357	L0002358	L0002359	L0002360	

Brodiaea_HRA

L0002361 , L0002362 , L0002363 , L0002364 , L0002365 , L0002366 , L0002367 , L0002368 ,
 L0002369 , L0002370 , L0002371 , L0002372 , L0002373 , L0002374 , L0002375 , L0002376 ,
 L0002377 , L0002378 , L0002379 , L0002380 , L0002381 , L0002382 , L0002383 , L0002384 ,
 L0002385 , L0002386 , L0002387 , L0002388 , L0002389 , L0002390 , L0002391 , L0002392 ,
 L0002393 , L0002394 , L0002395 , L0002396 , L0002397 , L0002398 , L0002399 , L0002400 ,
 L0002401 , L0002402 , L0002403 , L0002404 , L0002405 , L0002406 , L0002407 , L0002408 ,
 L0002409 , L0002410 , L0002411 , L0002412 , L0002413 , L0002414 , L0002415 , L0002416 ,
 L0002417 , L0002418 , L0002419 , L0002420 , L0002421 , L0002422 , L0002423 , L0002424 ,
 L0002425 , L0002426 , L0002427 , L0002428 , L0002429 , L0002430 , L0002431 , L0002432 ,
 L0002433 , L0002434 , L0002435 , L0002436 , L0002437 , L0002438 , L0002439 , L0002440 ,
 L0002441 , L0002442 , L0002443 , L0002444 , L0002445 , L0002446 , L0002447 , L0002448 ,
 L0002449 , L0002450 , L0002451 , L0002452 , L0002453 , L0002454 , L0002455 , L0002456 ,
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

L0002457 , L0002458 , L0002459 , L0002460 , L0002461 , L0002462 , L0002463 , L0002464 ,
 L0002465 , L0002466 , L0002467 , L0002468 , L0002469 , L0002470 , L0002471 , L0002472 ,
 L0002473 , L0002474 , L0002475 , L0002476 , L0002477 , L0002478 , L0002479 , L0002480 ,
 L0002481 , L0002482 , L0002483 , L0002484 , L0002485 , L0002486 , L0002487 , L0002488 ,
 L0002489 , L0002490 , L0002491 , L0002492 , L0002493 , L0002494 , L0002495 , L0002496 ,
 L0002497 , L0002498 , L0002499 ,
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID URBAN POP SOURCE IDs

2000000. L0001757 , L0001758 , L0001759 , L0001760 , L0001761 , L0001762 , L0001763 ,
 L0001764 ,
 L0001765 , L0001766 , L0001767 , L0001768 , L0001769 , L0001770 , L0001771 , L0001772 ,
 L0001773 , L0001774 , L0001775 , L0001776 , L0001777 , L0001778 , L0001779 , L0001780 ,
 L0001781 , L0001782 , L0001783 , L0001784 , L0001785 , L0001786 , L0001787 , L0001788 ,
 L0001789 , L0001790 , L0001791 , L0001792 , L0001793 , L0001794 , L0001795 , L0001796 ,
 L0001797 , L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 ,
 L0001805 , L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 ,
 L0001813 , L0001814 , L0001815 , L0001816 , L0001817 , L0001818 , L0002500 , L0002501 ,
 L0002502 , L0002503 , L0002504 , L0002505 , L0002506 , L0002507 , L0002508 , L0002509 ,
 L0002510 , L0002511 , L0002512 , L0002513 , L0002514 , L0002515 , L0002516 , L0002517 ,

Brodiaea_HRA

L0002518 , L0002519 , L0002520 , L0002521 , L0002522 , L0002523 , L0002524 , L0002525 ,
 L0002526 , L0002527 , L0002528 , L0002529 , L0002530 , L0002531 , L0002532 , L0002533 ,
 L0002534 , L0002535 , L0002536 , L0002537 , L0002538 , L0002539 , L0002540 , L0002541 ,
 L0002542 , L0002543 , L0002544 , L0002545 , L0002546 , L0002547 , L0002548 , L0002549 ,
 L0002550 , L0002551 , L0002552 , L0002553 , L0002554 , L0002555 , L0002556 , L0002557 ,
 L0002558 , L0002559 , L0002560 , L0002561 , L0002562 , L0002563 , L0002564 , L0002565 ,
 L0002566 , L0002567 , L0002568 , L0002569 , L0002570 , L0002571 , L0002572 , L0002573 ,
 L0002574 , L0002575 , L0002576 , L0002577 , L0002578 , L0002579 , L0002580 , L0002581 ,
 L0002582 , L0002583 , L0002584 , L0002585 , L0002586 , L0002587 , L0002588 , L0002589 ,
 L0002590 , L0002591 , L0002592 , L0002593 , L0002594 , L0002595 , L0002596 , L0002597 ,
 ♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
 PAGE 24
 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs					
-----	-----	-----	-----	-----	-----	-----	-----
L0002598	L0002599	L0002600	L0002601	L0002602	L0002603	L0002604	L0002605
L0002606	L0002607	L0002608	L0002609	L0002610	L0002611	L0002612	L0002613
L0002614	L0002615	L0002616	L0002617	L0002618	L0002619	L0002620	L0002621
L0002622	L0002623	L0002624	L0002625	L0002626	L0002627	L0002628	L0002629
L0002630	L0002631	L0002632	L0002633	L0002634	L0002635	L0002636	L0002637
L0002638	L0002639	L0002640	L0002641	L0002642	L0002643	L0002644	L0002645
L0002646	L0002647	L0002648	L0002649	L0002650	L0002651	L0002652	L0002653
L0002654	L0002655	L0002656	L0002657	L0002658	L0002659	L0002660	L0002661
L0002662	L0002663	L0002664	L0002665	L0002666	L0002667	L0002668	L0002669
L0002670	L0002671	L0002672	L0002673	L0002674	L0002675	L0002676	L0002677
L0002678	L0002679	L0002680	L0002681	L0002682	L0002683	L0002684	L0002685
L0002686	L0002687	L0002688	L0002689	L0002690	L0002691	L0002692	L0002693
L0002694	L0002695	L0002696	L0002697	L0002698	L0002699	L0002700	L0002701
L0002702	L0002703	L0002704	L0002705	L0002706	L0002707	L0002708	L0002709
L0002710	L0002711	L0002712	L0002713	L0002714	L0002715	L0002716	L0002717
L0002718	L0002719	L0002720	L0002721	L0002722	L0002723	L0002724	L0002725
L0002726	L0002727	L0002728	L0002729	L0002730	L0002731	L0002732	L0002733
L0002734	L0002735	L0002736	L0002737	L0002738	L0002739	L0002740	L0002741
L0002742	L0002743	L0002744	L0002745	L0002746	L0002747	L0002748	L0002749
L0002750	L0002751	L0002752	PARKINGLOT	L0002325	L0002326	L0002327	L0002328

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
 PAGE 25
 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
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Brodiaea_HRA

L0002329 , L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 ,
L0002337 , L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 ,
L0002345 , L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 ,
L0002353 , L0002354 , L0002355 , L0002356 , L0002357 , L0002358 , L0002359 , L0002360 ,
L0002361 , L0002362 , L0002363 , L0002364 , L0002365 , L0002366 , L0002367 , L0002368 ,
L0002369 , L0002370 , L0002371 , L0002372 , L0002373 , L0002374 , L0002375 , L0002376 ,
L0002377 , L0002378 , L0002379 , L0002380 , L0002381 , L0002382 , L0002383 , L0002384 ,
L0002385 , L0002386 , L0002387 , L0002388 , L0002389 , L0002390 , L0002391 , L0002392 ,
L0002393 , L0002394 , L0002395 , L0002396 , L0002397 , L0002398 , L0002399 , L0002400 ,
L0002401 , L0002402 , L0002403 , L0002404 , L0002405 , L0002406 , L0002407 , L0002408 ,
L0002409 , L0002410 , L0002411 , L0002412 , L0002413 , L0002414 , L0002415 , L0002416 ,
L0002417 , L0002418 , L0002419 , L0002420 , L0002421 , L0002422 , L0002423 , L0002424 ,
L0002425 , L0002426 , L0002427 , L0002428 , L0002429 , L0002430 , L0002431 , L0002432 ,
L0002433 , L0002434 , L0002435 , L0002436 , L0002437 , L0002438 , L0002439 , L0002440 ,
L0002441 , L0002442 , L0002443 , L0002444 , L0002445 , L0002446 , L0002447 , L0002448 ,
L0002449 , L0002450 , L0002451 , L0002452 , L0002453 , L0002454 , L0002455 , L0002456 ,
L0002457 , L0002458 , L0002459 , L0002460 , L0002461 , L0002462 , L0002463 , L0002464 ,
L0002465 , L0002466 , L0002467 , L0002468 , L0002469 , L0002470 , L0002471 , L0002472 ,
L0002473 , L0002474 , L0002475 , L0002476 , L0002477 , L0002478 , L0002479 , L0002480 ,
L0002481 , L0002482 , L0002483 , L0002484 , L0002485 , L0002486 , L0002487 , L0002488 ,
♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID URBAN POP SOURCE IDs

L0002489 , L0002490 , L0002491 , L0002492 , L0002493 , L0002494 , L0002495 , L0002496 ,
L0002497 , L0002498 , L0002499 ,
♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
PAGE 27
**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

477500.0, 477550.0, 477600.0, 477650.0, 477700.0, 477750.0, 477800.0, 477850.0, 477900.0, 477950.0,

*** Y-COORDINATES OF GRID ***
(METERS)

3751425.4, 3751475.4, 3751525.4, 3751575.4, 3751625.4, 3751675.4, 3751725.4, 3751775.4, 3751825.4, 3751875.4,
3751925.4, 3751975.4, 3752025.4, 3752075.4, 3752125.4, 3752175.4, 3752225.4, 3752275.4, 3752325.4, 3752375.4,
3752425.4, 3752475.4, 3752525.4, 3752575.4, 3752625.4, 3752675.4, 3752725.4, 3752775.4, 3752825.4, 3752875.4,
3752925.4, 3752975.4,

Brodiaea_HRA
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97
3752975.43	477.60	477.60	477.40	477.60	478.00	478.00	478.00	478.60	478.60
3752925.43	477.00	477.00	477.00	477.00	477.00	478.00	478.00	478.00	478.00
3752875.43	476.80	477.00	477.00	477.00	477.00	477.00	477.30	478.00	478.00
3752825.43	476.00	476.00	476.00	476.60	477.00	477.00	477.00	477.00	477.40
3752775.43	476.00	476.00	476.00	476.00	476.00	476.00	477.00	477.00	477.00
3752725.43	475.50	476.00	476.00	476.00	476.00	476.00	476.00	476.30	476.80
3752675.43	475.00	475.00	475.00	475.00	475.60	475.60	476.00	476.00	476.00
3752625.43	475.00	475.00	475.00	475.00	475.00	475.00	475.00	476.00	476.00
3752575.43	474.30	474.30	474.30	474.50	475.00	475.00	475.00	475.00	475.20
3752525.43	474.00	474.00	474.00	474.00	474.00	474.40	474.60	475.00	475.00
3752475.43	474.00	474.00	474.00	474.00	474.00	474.00	474.00	474.00	474.60
3752425.43	473.00	473.00	473.00	473.30	473.30	473.30	474.00	474.00	474.00
3752375.43	472.30	473.00	473.00	473.00	473.00	473.00	473.00	473.00	473.40
3752325.43	472.30	473.00	473.00	473.00	473.00	473.00	473.00	473.00	473.00
3752275.43	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.30
3752225.43	471.60	471.60	471.60	471.60	471.60	471.90	472.00	472.00	472.00
3752175.43	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3752125.43	470.30	470.30	470.30	470.30	470.30	471.00	471.00	471.00	471.00
3752075.43	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.40
3752025.43	469.00	469.00	469.00	470.00	470.00	470.00	470.00	470.00	470.00
3751975.43	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.20
3751925.43	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00
3751875.43	468.00	468.00	468.00	468.00	468.00	469.00	469.00	469.00	469.00
3751825.43	468.00	468.00	468.00	468.00	468.00	468.00	468.10	468.30	469.00
3751775.43	467.90	467.60	467.90	468.00	468.00	468.00	468.00	468.00	468.40
3751725.43	467.00	467.00	467.00	467.00	467.00	468.00	468.00	468.00	468.00
3751675.43	467.00	467.00	467.00	467.00	467.00	467.00	467.30	468.00	468.00
3751625.43	466.80	467.00	466.60	466.60	467.00	467.00	467.00	467.00	467.40
3751575.43	466.00	466.00	466.00	466.00	466.00	466.60	467.00	467.00	467.00
3751525.43	466.00	466.00	466.00	466.00	466.00	466.00	466.30	466.30	466.30
3751475.43	466.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00
3751425.43	465.00	465.00	465.00	466.00	466.00	466.00	466.00	466.00	466.00

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	477949.97
3752975.43	479.00
3752925.43	478.30
3752875.43	478.00
3752825.43	477.80
3752775.43	477.00
3752725.43	477.00
3752675.43	476.20
3752625.43	476.00
3752575.43	475.50
3752525.43	475.00
3752475.43	475.00
3752425.43	474.00
3752375.43	473.60
3752325.43	473.00
3752275.43	472.30
3752225.43	472.00
3752175.43	472.00
3752125.43	471.00
3752075.43	470.80
3752025.43	470.00
3751975.43	470.00

Brodiaea_HRA

3751925.43 | 469.80
 3751875.43 | 469.00
 3751825.43 | 469.00
 3751775.43 | 469.00
 3751725.43 | 468.30
 3751675.43 | 468.00
 3751625.43 | 467.80
 3751575.43 | 467.00
 3751525.43 | 467.00
 3751475.43 | 467.00
 3751425.43 | 466.30

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97

3752975.43	477.60	477.60	477.40	477.60	478.00	478.00	478.00	478.60	478.60
3752925.43	477.00	477.00	477.00	477.00	477.00	478.00	478.00	478.00	478.00
3752875.43	476.80	477.00	477.00	477.00	477.00	477.00	477.30	478.00	478.00
3752825.43	476.00	476.00	476.00	476.00	477.00	477.00	477.00	477.00	477.40
3752775.43	476.00	476.00	476.00	476.00	476.00	476.00	477.00	477.00	477.00
3752725.43	475.50	476.00	476.00	476.00	476.00	476.00	476.00	476.30	476.80
3752675.43	475.00	475.00	475.00	475.00	475.60	475.60	476.00	476.00	476.00
3752625.43	475.00	475.00	475.00	475.00	475.00	475.00	475.00	476.00	476.00
3752575.43	474.30	474.30	474.30	474.50	475.00	475.00	475.00	475.00	475.20
3752525.43	474.00	474.00	474.00	474.00	474.00	474.40	474.60	475.00	475.00
3752475.43	474.00	474.00	474.00	474.00	474.00	474.00	474.00	474.00	474.60
3752425.43	473.00	473.00	473.00	473.30	473.30	473.30	474.00	474.00	474.00
3752375.43	472.30	473.00	473.00	473.00	473.00	473.00	473.00	473.00	473.40
3752325.43	472.30	473.00	473.00	473.00	473.00	473.00	473.00	473.00	473.00
3752275.43	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.30
3752225.43	471.60	471.60	471.60	471.60	471.60	471.90	472.00	472.00	472.00
3752175.43	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3752125.43	470.30	470.30	470.30	470.30	470.30	471.00	471.00	471.00	471.00
3752075.43	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.40
3752025.43	469.00	469.00	469.00	470.00	470.00	470.00	470.00	470.00	470.00
3751975.43	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.20
3751925.43	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00
3751875.43	468.00	468.00	468.00	468.00	468.00	469.00	469.00	469.00	469.00
3751825.43	468.00	468.00	468.00	468.00	468.00	468.00	468.10	468.30	469.00
3751775.43	467.90	467.60	467.90	468.00	468.00	468.00	468.00	468.00	468.40
3751725.43	467.00	467.00	467.00	467.00	467.00	468.00	468.00	468.00	468.00
3751675.43	467.00	467.00	467.00	467.00	467.00	467.00	467.30	468.00	468.00
3751625.43	466.80	467.00	466.60	466.60	467.00	467.00	467.00	467.00	467.40
3751575.43	466.00	466.00	466.00	466.00	466.00	466.60	467.00	467.00	467.00
3751525.43	466.00	466.00	466.00	466.00	466.00	466.00	466.30	466.30	466.30
3751475.43	466.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00
3751425.43	465.00	465.00	465.00	466.00	466.00	466.00	466.00	466.00	466.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)
-----------------------	------------------

3752975.43	479.00
3752925.43	478.30
3752875.43	478.00
3752825.43	477.80
3752775.43	477.00
3752725.43	477.00
3752675.43	476.20
3752625.43	476.00
3752575.43	475.50
3752525.43	475.00

Brodiaea_HRA

3752475.43 | 475.00
3752425.43 | 474.00
3752375.43 | 473.60
3752325.43 | 473.00
3752275.43 | 472.30
3752225.43 | 472.00
3752175.43 | 472.00
3752125.43 | 471.00
3752075.43 | 470.80
3752025.43 | 470.00
3751975.43 | 470.00
3751925.43 | 469.80
3751875.43 | 469.00
3751825.43 | 469.00
3751775.43 | 469.00
3751725.43 | 468.30
3751675.43 | 468.00
3751625.43 | 467.80
3751575.43 | 467.00
3751525.43 | 467.00
3751475.43 | 467.00
3751425.43 | 466.30

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

474068.6, 474168.6, 474268.6, 474368.6, 474468.6, 474568.6, 474668.6, 474768.6, 474868.6, 474968.6,
475068.6, 475168.6, 475268.6, 475368.6, 475468.6, 475568.6, 475668.6, 475768.6, 475868.6, 475968.6,
476068.6, 476168.6, 476268.6, 476368.6, 476468.6, 476568.6, 476668.6, 476768.6, 476868.6, 476968.6,
477068.6, 477168.6, 477268.6, 477368.6, 477468.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3751458.5, 3751558.5, 3751658.5, 3751758.5, 3751858.5, 3751958.5, 3752058.5, 3752158.5, 3752258.5, 3752358.5,
3752458.5, 3752558.5, 3752658.5, 3752758.5, 3752858.5, 3752958.5, 3753058.5,

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
PAGE 33

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Table with 10 columns: Y-COORD (METERS), X-COORD (METERS), and 8 elevation values. Rows list coordinates and corresponding elevation data for various grid points.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
PAGE 34

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

Brodiaea_HRA
*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	474968.56	475068.56	475168.56	475268.56	475368.56	475468.56	475568.56	475668.56	475768.56
3753058.53	477.40	477.30	477.40	477.40	478.00	477.80	478.00	478.00	478.00
3752958.53	476.10	476.10	476.40	476.10	477.00	477.00	477.00	477.10	477.70
3752858.53	475.00	475.80	476.00	476.00	476.20	476.00	476.70	477.00	477.00
3752758.53	475.00	476.00	476.00	476.00	475.60	476.00	476.00	476.00	476.00
3752658.53	475.00	475.00	475.10	475.10	475.00	475.70	476.00	476.00	475.70
3752558.53	473.00	473.70	474.00	475.00	474.70	475.00	475.00	475.00	475.00
3752458.53	473.00	472.30	473.80	474.00	473.10	473.80	474.00	474.00	474.00
3752358.53	472.00	473.00	473.00	473.00	472.00	473.00	473.10	473.00	473.10
3752258.53	472.00	472.00	472.50	472.70	472.50	472.00	472.00	472.70	472.70
3752158.53	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00
3752058.53	472.00	472.00	472.00	472.00	472.00	471.10	471.10	471.10	471.10
3751958.53	472.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3751858.53	471.00	471.00	471.00	471.00	471.00	470.40	471.00	470.40	470.40
3751758.53	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00
3751658.53	470.00	470.00	469.90	470.00	470.00	470.00	470.00	469.70	469.90
3751558.53	469.00	469.00	469.00	469.40	469.00	469.00	469.00	469.00	469.00
3751458.53	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	475868.56	475968.56	476068.56	476168.56	476268.56	476368.56	476468.56	476568.56	476668.56
3753058.53	478.00	479.00	479.00	479.00	479.00	479.00	479.00	479.00	479.00
3752958.53	478.00	478.10	479.00	478.00	478.00	478.00	478.00	478.10	478.10
3752858.53	477.00	477.20	477.70	477.70	477.00	477.50	477.00	477.70	477.70
3752758.53	476.00	476.10	476.00	476.40	476.60	476.00	476.00	477.00	476.40
3752658.53	475.10	476.00	476.00	476.00	475.30	476.00	475.00	476.00	476.00
3752558.53	475.00	475.00	475.00	475.70	475.00	475.00	475.00	475.50	474.70
3752458.53	474.00	474.00	474.40	474.40	474.30	474.40	473.00	473.00	474.00
3752358.53	473.00	473.00	473.00	474.00	473.10	473.40	473.00	472.30	473.00
3752258.53	472.70	472.50	472.70	472.70	472.70	472.70	472.00	472.00	472.00
3752158.53	472.00	472.00	472.00	472.00	472.00	472.00	472.00	471.00	471.00
3752058.53	471.10	471.10	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3751958.53	471.00	471.00	471.00	471.00	470.70	470.70	470.00	470.00	470.00
3751858.53	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00
3751758.53	470.00	470.00	470.00	470.00	469.00	469.00	469.00	469.00	469.00
3751658.53	469.00	469.00	469.00	469.00	469.00	468.70	468.70	468.70	468.00
3751558.53	469.00	469.00	468.60	468.40	468.00	468.00	468.00	467.80	467.40
3751458.53	468.10	468.00	468.00	468.00	467.10	467.00	467.00	467.00	467.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56	
3753058.53	479.00	479.00	478.40	478.00	478.30	479.00	478.40	478.00	
3752958.53	478.00	478.00	477.40	477.10	477.10	477.10	477.10	477.10	
3752858.53	477.00	477.00	477.00	476.00	475.30	476.00	476.70	476.70	
3752758.53	476.40	476.00	476.00	475.40	475.00	475.30	476.00	475.30	
3752658.53	476.00	475.70	475.00	475.00	474.70	474.70	475.00	475.00	
3752558.53	474.70	474.50	474.00	473.00	473.00	473.90	474.00	474.00	
3752458.53	473.40	473.40	473.00	472.40	473.00	473.00	473.00	473.10	
3752358.53	473.00	472.30	472.00	472.00	472.00	472.10	473.00	472.00	
3752258.53	472.00	472.00	471.70	471.00	471.20	471.70	471.70	472.00	
3752158.53	471.00	471.00	471.00	470.40	470.40	470.80	470.40	470.60	
3752058.53	470.10	470.10	470.00	470.00	470.00	470.00	470.00	469.30	

Brodiaea_HRA									
3751958.53	470.00	470.00	469.30	469.00	469.00	469.00	469.00	469.00	469.00
3751858.53	469.00	469.00	469.00	469.00	468.00	468.00	468.00	468.00	468.00
3751758.53	468.10	467.10	468.00	468.00	468.00	468.00	468.00	467.30	467.30
3751658.53	467.30	466.70	467.00	467.00	467.00	467.00	467.00	466.80	466.80
3751558.53	467.00	466.00	466.00	466.00	466.40	466.00	466.00	466.00	466.00
3751458.53	467.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD	X-COORD (METERS)								
(METERS)	474068.56	474168.56	474268.56	474368.56	474468.56	474568.56	474668.56	474768.56	474868.56
3753058.53	471.00	472.00	472.00	475.00	474.00	475.00	475.60	477.00	477.80
3752958.53	471.00	472.00	473.00	474.00	474.00	475.00	476.00	476.00	477.00
3752858.53	470.00	472.00	473.00	473.30	474.20	475.00	475.70	476.00	475.60
3752758.53	469.60	471.70	472.00	473.00	472.10	473.80	475.00	475.00	475.40
3752658.53	471.00	472.30	473.00	472.00	472.90	473.40	475.00	474.30	474.10
3752558.53	471.70	472.90	472.00	472.30	473.00	473.60	474.00	472.20	473.00
3752458.53	470.00	471.40	471.60	472.40	473.00	472.80	473.00	472.70	474.00
3752358.53	469.00	470.00	471.00	472.00	472.00	473.00	473.00	473.00	473.00
3752258.53	469.00	469.00	470.50	471.70	472.00	472.00	472.00	472.70	472.90
3752158.53	469.60	469.70	470.40	472.20	472.00	472.00	472.00	472.00	472.30
3752058.53	470.00	470.00	470.00	473.00	473.00	472.00	472.00	472.00	472.00
3751958.53	471.30	470.30	471.30	472.70	473.00	472.00	471.70	471.00	472.00
3751858.53	472.00	472.00	472.00	472.00	472.30	472.00	471.00	471.00	471.40
3751758.53	473.00	472.00	472.00	472.00	472.00	471.00	471.00	471.00	471.00
3751658.53	473.00	472.00	472.00	472.00	472.00	471.00	470.00	470.90	470.30
3751558.53	473.00	472.00	472.00	471.00	471.00	471.00	470.00	470.00	470.00
3751458.53	473.00	472.00	472.00	471.00	470.00	470.00	469.10	470.00	469.40

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD	X-COORD (METERS)								
(METERS)	474968.56	475068.56	475168.56	475268.56	475368.56	475468.56	475568.56	475668.56	475768.56
3753058.53	477.40	477.30	477.40	477.40	478.00	477.80	478.00	478.00	478.00
3752958.53	476.10	476.10	476.40	476.10	477.00	477.00	477.00	477.10	477.70
3752858.53	475.00	475.80	476.00	476.00	476.20	476.00	476.70	477.00	477.00
3752758.53	475.00	476.00	476.00	476.00	475.60	476.00	476.00	476.00	476.00
3752658.53	475.00	475.00	475.10	475.10	475.00	475.70	476.00	476.00	475.70
3752558.53	473.00	473.70	474.00	475.00	474.70	475.00	475.00	475.00	475.00
3752458.53	473.00	472.30	473.80	474.00	473.10	473.80	474.00	474.00	474.00
3752358.53	472.00	473.00	473.00	473.00	472.00	473.00	473.10	473.00	473.10
3752258.53	472.00	472.00	472.50	472.70	472.50	472.00	472.00	472.70	472.70
3752158.53	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00	472.00
3752058.53	472.00	472.00	472.00	472.00	472.00	471.10	471.10	471.10	471.10
3751958.53	472.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3751858.53	471.00	471.00	471.00	471.00	471.00	470.40	471.00	470.40	470.40
3751758.53	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00
3751658.53	470.00	470.00	469.90	470.00	470.00	470.00	470.00	469.70	469.90
3751558.53	469.00	469.00	469.00	469.40	469.00	469.00	469.00	469.00	469.00
3751458.53	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00	469.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD	X-COORD (METERS)								
(METERS)	475868.56	475968.56	476068.56	476168.56	476268.56	476368.56	476468.56	476568.56	476668.56

Brodiaea_HRA									
3753058.53	478.00	479.00	479.00	479.00	479.00	479.00	479.00	479.00	479.00
3752958.53	478.00	478.10	479.00	478.00	478.00	478.00	478.00	478.10	478.10
3752858.53	477.00	477.20	477.70	477.70	477.00	477.50	477.00	477.70	477.70
3752758.53	476.00	476.10	476.00	476.40	476.60	476.00	476.00	477.00	476.40
3752658.53	475.10	476.00	476.00	476.00	475.30	476.00	475.00	476.00	476.00
3752558.53	475.00	475.00	475.00	475.70	475.00	475.00	475.00	475.50	474.70
3752458.53	474.00	474.00	474.40	474.40	474.30	474.40	473.00	473.00	474.00
3752358.53	473.00	473.00	473.00	474.00	473.10	473.40	473.00	472.30	473.00
3752258.53	472.70	472.50	472.70	472.70	472.70	472.70	472.00	472.00	472.00
3752158.53	472.00	472.00	472.00	472.00	472.00	472.00	472.00	471.00	471.00
3752058.53	471.10	471.10	471.00	471.00	471.00	471.00	471.00	471.00	471.00
3751958.53	471.00	471.00	471.00	471.00	470.70	470.70	470.00	470.00	470.00
3751858.53	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00	470.00
3751758.53	470.00	470.00	470.00	470.00	469.00	469.00	469.00	469.00	469.00
3751658.53	469.00	469.00	469.00	469.00	469.00	468.70	468.70	468.70	468.00
3751558.53	469.00	469.00	468.60	468.40	468.00	468.00	468.00	467.80	467.40
3751458.53	468.10	468.00	468.00	468.00	467.10	467.00	467.00	467.00	467.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
 PAGE 40

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56
3753058.53	479.00	479.00	478.40	478.00	478.30	479.00	478.40	478.00
3752958.53	478.00	478.00	477.40	477.10	477.10	477.10	477.10	477.10
3752858.53	477.00	477.00	477.00	476.00	475.30	476.00	476.70	476.70
3752758.53	476.40	476.00	476.00	475.40	475.00	475.30	476.00	475.30
3752658.53	476.00	475.70	475.00	475.00	474.70	474.70	475.00	475.00
3752558.53	474.70	474.50	474.00	473.00	473.00	473.90	474.00	474.00
3752458.53	473.40	473.40	473.00	472.40	473.00	473.00	473.00	473.10
3752358.53	473.00	472.30	472.00	472.00	472.00	472.10	473.00	472.00
3752258.53	472.00	472.00	471.70	471.00	471.20	471.70	471.70	472.00
3752158.53	471.00	471.00	471.00	470.40	470.40	470.80	470.40	470.60
3752058.53	470.10	470.10	470.00	470.00	470.00	470.00	470.00	469.30
3751958.53	470.00	470.00	469.30	469.00	469.00	469.00	469.00	469.00
3751858.53	469.00	469.00	469.00	469.00	468.00	468.00	468.00	468.00
3751758.53	468.10	467.10	468.00	468.00	468.00	468.00	468.00	467.30
3751658.53	467.30	466.70	467.00	467.00	467.00	467.00	467.00	466.80
3751558.53	467.00	466.00	466.00	466.00	466.40	466.00	466.00	466.00
3751458.53	467.00	466.00	466.00	466.00	466.00	466.00	466.00	466.00

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

477281.2, 477381.2, 477481.2, 477581.2, 477681.2,

*** Y-COORDINATES OF GRID ***
(METERS)

3753087.1, 3753187.1, 3753287.1, 3753387.1, 3753487.1, 3753587.1, 3753687.1, 3753787.1, 3753887.1, 3753987.1,
 3754087.1, 3754187.1, 3754287.1, 3754387.1, 3754487.1, 3754587.1, 3754687.1, 3754787.1, 3754887.1, 3754987.1,
 3755087.1, 3755187.1, 3755287.1, 3755387.1, 3755487.1,

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	477281.21	477381.21	477481.21	477581.21	477681.21
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Brodiaea_HRA

3755487.10	499.00	499.00	499.00	499.00	498.40
3755387.10	499.00	498.00	498.00	498.00	497.00
3755287.10	497.70	497.00	497.70	497.00	496.00
3755187.10	497.00	496.60	497.00	497.00	495.80
3755087.10	495.10	496.00	496.00	496.00	494.60
3754987.10	494.00	494.70	494.80	494.70	494.00
3754887.10	493.00	494.00	494.00	494.00	494.00
3754787.10	493.00	493.00	494.00	493.00	493.00
3754687.10	492.00	492.70	492.80	492.00	492.00
3754587.10	491.00	492.00	492.00	491.40	491.00
3754487.10	491.00	491.00	491.00	491.00	491.00
3754387.10	490.00	491.00	491.00	490.00	491.00
3754287.10	489.40	490.00	490.00	489.40	489.40
3754187.10	488.00	488.00	488.00	488.00	488.00
3754087.10	487.00	488.00	488.00	487.00	487.90
3753987.10	486.40	486.80	486.40	486.40	486.40
3753887.10	485.00	485.00	485.00	485.00	485.00
3753787.10	485.00	484.70	484.00	484.00	483.70
3753687.10	484.30	482.20	482.30	482.40	482.00
3753587.10	483.00	482.60	482.00	482.00	481.60
3753487.10	482.70	482.40	482.00	481.00	481.00
3753387.10	482.00	482.00	481.50	480.30	479.00
3753287.10	481.00	481.00	480.00	479.00	478.40
3753187.10	480.00	479.70	479.00	479.00	479.00
3753087.10	479.00	479.00	478.40	478.00	478.10

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN
 *** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD	X-COORD (METERS)				
(METERS)	477281.21	477381.21	477481.21	477581.21	477681.21
3755487.10	939.00	939.00	939.00	939.00	939.00
3755387.10	939.00	939.00	939.00	939.00	939.00
3755287.10	939.00	939.00	939.00	939.00	930.00
3755187.10	939.00	939.00	939.00	930.00	930.00
3755087.10	939.00	939.00	939.00	930.00	494.60
3754987.10	939.00	939.00	930.00	494.70	494.00
3754887.10	939.00	930.00	929.00	494.00	494.00
3754787.10	930.00	930.00	494.00	493.00	493.00
3754687.10	930.00	492.70	492.80	492.00	492.00
3754587.10	491.00	492.00	492.00	491.40	491.00
3754487.10	491.00	491.00	491.00	491.00	491.00
3754387.10	490.00	491.00	491.00	490.00	491.00
3754287.10	489.40	490.00	490.00	489.40	489.40
3754187.10	488.00	488.00	488.00	488.00	488.00
3754087.10	487.00	488.00	488.00	487.00	487.90
3753987.10	486.40	486.80	486.40	486.40	486.40
3753887.10	485.00	485.00	485.00	485.00	485.00
3753787.10	485.00	484.70	484.00	484.00	483.70
3753687.10	484.30	482.20	482.30	482.40	482.00
3753587.10	483.00	482.60	482.00	482.00	481.60
3753487.10	482.70	482.40	482.00	481.00	481.00
3753387.10	482.00	482.00	481.50	480.30	479.00
3753287.10	481.00	481.00	480.00	479.00	478.40
3753187.10	480.00	479.70	479.00	479.00	479.00
3753087.10	479.00	479.00	478.40	478.00	478.10

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN
 * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
 LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	-- RECEPTOR LOCATION --		DISTANCE
	XR (METERS)	YR (METERS)	(METERS)
L0001813	477368.6	3752458.5	-0.39
L0001814	477368.6	3752458.5	-3.08

Brodiaea_HRA

L0002521	477168.6	3752458.5	0.02
L0002528	477168.6	3752358.5	-1.22
L0002535	477168.6	3752258.5	-2.05
L0002728	474368.6	3752158.5	-3.51
L0002729	474368.6	3752158.5	-8.39
L0002735	474268.6	3752158.5	-0.81
L0002736	474268.6	3752158.5	0.13
L0002336	477468.6	3752658.5	-7.08
L0002341	477468.6	3752758.5	-4.07
L0002342	477468.6	3752758.5	-4.27
L0002347	477468.6	3752858.5	-7.94
L0002352	477468.6	3752958.5	-5.47
L0002353	477468.6	3752958.5	-4.10
L0002357	477468.6	3753058.5	0.91
L0002358	477468.6	3753058.5	-8.66
L0002359	477481.2	3753087.1	-9.07
L0002360	477481.2	3753087.1	-8.10
L0002364	477481.2	3753187.1	-0.72
L0002365	477481.2	3753187.1	-14.44
L0002370	477481.2	3753287.1	-9.78
L0002371	477481.2	3753287.1	-6.71
L0002375	477481.2	3753387.1	-1.65
L0002376	477481.2	3753387.1	-13.22
L0002381	477481.2	3753487.1	-10.29
L0002382	477481.2	3753487.1	-5.31
L0002386	477481.2	3753587.1	-2.50
L0002387	477481.2	3753587.1	-11.91
L0002392	477481.2	3753687.1	-10.55
L0002393	477481.2	3753687.1	-3.90
L0002397	477481.2	3753787.1	-3.27
L0002398	477481.2	3753787.1	-10.55
L0002403	477481.2	3753887.1	-10.56
L0002404	477481.2	3753887.1	-2.49
L0002408	477481.2	3753987.1	-3.93
L0002409	477481.2	3753987.1	-9.16
L0002414	477481.2	3754087.1	-10.30
L0002415	477481.2	3754087.1	-1.07
L0002419	477481.2	3754187.1	-4.47

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
 LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	-- RECEPTOR LOCATION -- XR (METERS) YR (METERS)	DISTANCE (METERS)
L0002420	477481.2 3754187.1	-7.76
L0002425	477481.2 3754287.1	-9.80
L0002426	477481.2 3754287.1	0.35
L0002430	477481.2 3754387.1	-4.87
L0002431	477481.2 3754387.1	-6.35
L0002436	477481.2 3754487.1	-9.10
L0002441	477481.2 3754587.1	-5.13
L0002442	477481.2 3754587.1	-4.93
L0002447	477481.2 3754687.1	-8.24
L0002452	477481.2 3754787.1	-5.23
L0002453	477481.2 3754787.1	-3.51
L0002458	477481.2 3754887.1	-7.25
L0002463	477481.2 3754987.1	-5.18
L0002464	477481.2 3754987.1	-2.08
L0002468	477481.2 3755087.1	0.91
L0002469	477481.2 3755087.1	-6.18
L0002474	477481.2 3755187.1	-4.97
L0002475	477481.2 3755187.1	-0.65
L0002479	477481.2 3755287.1	0.55
L0002480	477481.2 3755287.1	-5.03
L0002485	477481.2 3755387.1	-4.61
L0002486	477481.2 3755387.1	0.78
L0002490	477481.2 3755487.1	0.30
L0002491	477481.2 3755487.1	-3.83

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Brodiaea_HRA

L0001770 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97
3752975.43	6.12485	5.74976	5.34303	4.92727	4.52237	4.14222	3.79069	3.46809	3.17778
3752925.43	7.29553	6.75572	6.18731	5.62761	5.09967	4.61083	4.17420	3.78408	3.43747
3752875.43	8.83806	8.03513	7.22630	6.46081	5.76417	5.14456	4.59929	4.12247	3.71019
3752825.43	10.93217	9.70120	8.52257	7.45507	6.52660	5.73321	5.05774	4.48391	3.99467
3752775.43	13.81628	11.85795	10.10927	8.62467	7.39281	6.37910	5.54036	4.85304	4.28217
3752725.43	17.89851	14.65732	12.02896	9.95458	8.32996	7.05276	6.03965	5.22579	4.56484
3752675.43	23.67845	18.23318	14.28218	11.42066	9.31087	7.73493	6.52598	5.58494	4.83741
3752625.43	31.50047	22.44016	16.70279	12.90347	10.27603	8.38881	6.98889	5.91642	5.08511
3752575.43	40.82980	26.81712	19.03546	14.27024	11.13234	8.96000	7.38745	6.21020	5.30360
3752525.43	48.08744	30.02068	20.71555	15.25908	11.76822	9.39003	7.69153	6.43187	5.47186
3752475.43	47.31264	30.21705	21.04343	15.55704	12.01182	9.58465	7.84700	6.55804	5.57353
3752425.43	38.57184	26.91673	19.66818	14.95595	11.74263	9.46878	7.80801	6.55418	5.58695
3752375.43	28.50130	21.99403	17.14140	13.59661	10.98693	9.03606	7.55157	6.40175	5.49739
3752325.43	20.83456	17.29721	14.29390	11.85567	9.90616	8.35324	7.11268	6.11520	5.30642
3752275.43	15.61376	13.56311	11.70773	10.08539	8.69726	7.52476	6.54095	5.71719	5.02807
3752225.43	12.09269	10.82338	9.62420	8.52775	7.54566	6.68108	5.92282	5.26332	4.69238
3752175.43	9.64257	8.80991	7.99740	7.23229	6.52653	5.88417	5.30509	4.78676	4.32526
3752125.43	7.87797	7.30755	6.73515	6.18315	5.66304	5.18536	4.73959	4.33196	3.96111
3752075.43	6.57343	6.16843	5.75212	5.34199	4.94848	4.57701	4.22983	3.90747	3.61132
3752025.43	5.56842	5.27353	4.96421	4.66208	4.35786	4.06653	3.79087	3.53197	3.28997
3751975.43	4.79435	4.57350	4.33808	4.09766	3.85933	3.62792	3.40637	3.19619	2.99871
3751925.43	4.17681	4.00792	3.82557	3.63672	3.44686	3.26012	3.07929	2.90609	2.74138
3751875.43	3.66931	3.53816	3.39514	3.24526	3.09272	2.94526	2.79619	2.65203	2.51383
3751825.43	3.25833	3.15444	3.04027	2.91949	2.79528	2.67029	2.54704	2.42698	2.31221
3751775.43	2.91525	2.83040	2.73948	2.64148	2.53937	2.43567	2.33214	2.23017	2.13185
3751725.43	2.62279	2.55497	2.47964	2.39884	2.31438	2.23098	2.14370	2.05703	1.97193
3751675.43	2.37756	2.32165	2.25935	2.19218	2.12155	2.04873	1.97566	1.90331	1.83006
3751625.43	2.16624	2.12030	2.06709	2.01082	1.95241	1.89069	1.82769	1.76423	1.70182
3751575.43	1.98163	1.94255	1.89881	1.85130	1.80089	1.74973	1.69656	1.64180	1.58693
3751525.43	1.82289	1.78973	1.75256	1.71209	1.66899	1.62390	1.57797	1.53058	1.48283
3751475.43	1.68351	1.65515	1.62332	1.58861	1.55153	1.51260	1.47229	1.43104	1.38929
3751425.43	1.55839	1.53401	1.50664	1.47856	1.44647	1.41268	1.37756	1.34150	1.30482

♀ *** AERMED - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)
477949.97	

3752975.43	2.89916
3752925.43	3.12971
3752875.43	3.35158
3752825.43	3.57754
3752775.43	3.80470
3752725.43	4.02359
3752675.43	4.23344
3752625.43	4.42360
3752575.43	4.58977
3752525.43	4.72104
3752475.43	4.80331
3752425.43	4.82510
3752375.43	4.77291
3752325.43	4.64459
3752275.43	4.44728
3752225.43	4.19879
3752175.43	3.91945
3752125.43	3.62512
3752075.43	3.33814

Brodiaea_HRA

3752025.43 | 3.06453
3751975.43 | 2.81487
3751925.43 | 2.58779
3751875.43 | 2.38209
3751825.43 | 2.20000
3751775.43 | 2.03707
3751725.43 | 1.88973
3751675.43 | 1.75828
3751625.43 | 1.64013
3751575.43 | 1.53248
3751525.43 | 1.43625
3751475.43 | 1.34880
3751425.43 | 1.26826

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

Table with 10 columns of concentration values for various Y and X coordinates. Values range from approximately 0.25 to 0.35 micrograms/m3.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of concentration values for various Y and X coordinates. Values range from approximately 0.41 to 0.65 micrograms/m3.

Brodiaea_HRA

3751758.53	0.40251	0.42881	0.45788	0.49012	0.52599	0.56606	0.61096	0.66148	0.71855
3751658.53	0.39345	0.41843	0.44592	0.47630	0.50993	0.54727	0.58888	0.63529	0.68744
3751558.53	0.38373	0.40734	0.43324	0.46177	0.49306	0.52769	0.56604	0.60859	0.65591
3751458.53	0.37373	0.39598	0.42029	0.44688	0.47604	0.50805	0.54328	0.58212	0.62500

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	475868.56	475968.56	476068.56	476168.56	476268.56	476368.56	476468.56	476568.56	476668.56

3753058.53	0.85566	0.92680	1.03077	1.15343	1.29920	1.47370	1.68396	1.93860	2.24750
3752958.53	0.88652	0.98524	1.07976	1.24225	1.41146	1.61827	1.87388	2.19315	2.59584
3752858.53	0.91375	1.01951	1.14591	1.29905	1.48721	1.72065	2.01668	2.39654	2.89571
3752758.53	0.93584	1.04759	1.18235	1.34682	1.55099	1.80944	2.14248	2.58147	3.18070
3752658.53	0.95163	1.06750	1.20819	1.38127	1.59828	1.87475	2.23797	2.72573	3.40896
3752558.53	0.96001	1.07842	1.22234	1.39975	1.62345	1.91057	2.28934	2.80488	3.53867
3752458.53	0.96066	1.07911	1.22303	1.40070	1.62403	1.91086	2.28819	2.80264	3.53361
3752358.53	0.95291	1.06900	1.20962	1.38284	1.59864	1.87456	2.23438	2.71724	3.39223
3752258.53	0.93757	1.04912	1.18357	1.34751	1.55054	1.80636	2.13432	2.56649	3.15021
3752158.53	0.91523	1.02063	1.14647	1.29840	1.48417	1.71448	2.00445	2.37390	2.85725
3752058.53	0.88715	0.98512	1.10087	1.23899	1.40537	1.60793	1.85724	2.16757	2.55807
3751958.53	0.85508	0.94504	1.05019	1.17399	1.32060	1.49601	1.70623	1.96181	2.27301
3751858.53	0.81981	0.90149	0.99589	1.10555	1.23363	1.38394	1.56112	1.77059	2.01816
3751758.53	0.78324	0.85689	0.94105	1.03757	1.14792	1.27602	1.42414	1.59535	1.79216
3751658.53	0.74568	0.81166	0.88623	0.97074	1.06670	1.17555	1.29949	1.43974	1.59570
3751558.53	0.70867	0.76760	0.83337	0.90715	0.98974	1.08260	1.18638	1.30123	1.42629
3751458.53	0.67214	0.72460	0.78282	0.84740	0.91844	0.99750	1.08454	1.17918	1.28003

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56	

3753058.53	2.62007	3.06071	3.64949	4.18635	4.67022	4.87144	5.06114	4.84770	
3752958.53	3.10619	3.74920	4.54161	5.45406	6.36513	7.02971	7.17103	6.72116	
3752858.53	3.56440	4.46917	5.69661	7.31340	9.19929	10.77823	11.13342	10.01259	
3752758.53	4.02184	5.25006	7.10727	9.98673	14.24668	18.98012	20.25475	16.58101	
3752658.53	4.40907	5.96293	8.57112	13.38937	23.32100	42.84219	51.50320	31.48586	
3752558.53	4.63596	6.40305	9.55791	16.14694	34.51395	131.22212	380.90742	61.88997	
3752458.53	4.62200	6.36819	9.45726	15.81499	32.89305	107.44438	225.29876	61.53410	
3752358.53	4.37177	5.87168	8.34229	12.78705	21.50900	36.97958	42.48114	29.50463	
3752258.53	3.96316	5.13520	6.88338	9.54697	13.46564	17.62173	18.32750	15.39536	
3752158.53	3.49911	4.36595	5.54584	7.10302	8.93072	10.36923	10.47839	9.42234	
3752058.53	3.05061	3.68011	4.46769	5.39466	6.31217	6.90238	6.90854	6.40992	
3751958.53	2.65212	3.10909	3.63656	4.19812	4.69003	4.96516	4.94584	4.68481	
3751858.53	2.30607	2.63856	3.00041	3.35415	3.62815	3.76788	3.74471	3.58954	
3751758.53	2.01295	2.25346	2.50643	2.73447	2.90188	2.97748	2.95597	2.85278	
3751658.53	1.76604	1.94460	2.12099	2.27202	2.37604	2.41854	2.39996	2.33130	
3751558.53	1.55879	1.69115	1.81635	1.91884	1.98681	2.01016	1.99444	1.94611	
3751458.53	1.38394	1.48367	1.57448	1.64571	1.68989	1.70420	1.69094	1.65520	

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

Brodiaea_HRA
*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 6 columns: Y-COORD (METERS), X-COORD (METERS), and 4 data columns. Rows include coordinates like 477281.21, 477381.21, 477481.21, 477581.21, 477681.21 and data values ranging from 0.22094 to 4.49072.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 10 columns: Y-COORD (METERS), X-COORD (METERS), and 8 data columns. Rows include coordinates like 477499.97, 477549.97, 477599.97, 477649.97, 477699.97, 477749.97, 477799.97, 477849.97, 477899.97 and data values ranging from 39.74365 to 0.93290.

Brodiaea_HRA									
3751875.43	0.86428	0.85477	0.84351	0.83069	0.81652	0.80206	0.78579	0.76882	0.75138
3751825.43	0.80549	0.79739	0.78784	0.77700	0.76500	0.75198	0.73820	0.72382	0.70926
3751775.43	0.75372	0.74649	0.73856	0.72937	0.71910	0.70794	0.69602	0.68347	0.67068
3751725.43	0.70724	0.70117	0.69411	0.68613	0.67728	0.66833	0.65800	0.64708	0.63569
3751675.43	0.66643	0.66111	0.65495	0.64799	0.64030	0.63191	0.62309	0.61396	0.60395
3751625.43	0.62966	0.62508	0.61941	0.61331	0.60681	0.59946	0.59155	0.58316	0.57455
3751575.43	0.59609	0.59191	0.58712	0.58174	0.57580	0.56966	0.56288	0.55545	0.54763
3751525.43	0.56612	0.56236	0.55809	0.55332	0.54804	0.54229	0.53625	0.52964	0.52268
3751475.43	0.53878	0.53540	0.53158	0.52731	0.52260	0.51747	0.51193	0.50603	0.49980
3751425.43	0.51327	0.51022	0.50678	0.50342	0.49920	0.49460	0.48963	0.48433	0.47873

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
 INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
 L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
 L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
 L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 477949.97

3752975.43	2.56303
3752925.43	2.51303
3752875.43	2.45634
3752825.43	2.39223
3752775.43	2.32010
3752725.43	2.24022
3752675.43	2.15215
3752625.43	2.05694
3752575.43	1.95464
3752525.43	1.84585
3752475.43	1.73174
3752425.43	1.61294
3752375.43	1.49446
3752325.43	1.37974
3752275.43	1.27250
3752225.43	1.17536
3752175.43	1.08872
3752125.43	1.01086
3752075.43	0.94248
3752025.43	0.88114
3751975.43	0.82697
3751925.43	0.77816
3751875.43	0.73368
3751825.43	0.69388
3751775.43	0.65762
3751725.43	0.62410
3751675.43	0.59359
3751625.43	0.56558
3751575.43	0.53948
3751525.43	0.51572
3751475.43	0.49370
3751425.43	0.47297

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
 INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
 L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
 L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
 L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

Brodiaea_HRA

Table with 10 columns of numerical data representing concentrations for various source IDs (e.g., 3753058.53, 3752958.53, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of numerical data representing concentrations for various source IDs (e.g., 3753058.53, 3752958.53, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475868.56 475968.56 476068.56 476168.56 476268.56 476368.56 476468.56 476568.56 476668.56

Table with 10 columns of numerical data representing concentrations for various source IDs (e.g., 3753058.53, 3752958.53, etc.).

Brodiaea_HRA

Table with 10 columns of numerical data representing HRA concentrations for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 476768.56 to 477468.56.

Table with 10 columns of numerical data representing concentration values for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 477281.21 to 477681.21.

Table with 10 columns of numerical data representing concentration values for various source IDs.

Brodiaea_HRA

3754187.10	6.12700	11.40606	27.67938	10.57520	6.08199
3754087.10	6.13591	11.36009	29.21162	10.62722	6.09011
3753987.10	6.12548	11.33445	28.20406	10.66308	6.12185
3753887.10	6.11916	11.30053	28.78946	10.70068	6.13611
3753787.10	6.09259	11.24056	28.94873	10.73256	6.14539
3753687.10	6.06864	11.21373	28.54819	10.76822	6.15108
3753587.10	6.05483	11.15606	29.89992	10.79164	6.14377
3753487.10	6.01561	11.08690	28.37199	10.79275	6.12792
3753387.10	5.97464	11.00271	30.71889	10.78669	6.10016
3753287.10	5.92678	10.91815	28.05029	10.77018	6.06450
3753187.10	5.87413	10.84058	31.94933	10.76699	6.02270
3753087.10	5.81054	10.73837	28.00238	10.72427	5.95323

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
 INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
 L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
 L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
 L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97
3752975.43	1.36569	1.28168	1.20497	1.12961	1.05622	0.99659	0.94183	0.89055	0.84487
3752925.43	1.50651	1.39788	1.29823	1.20790	1.12647	1.05625	0.99324	0.93600	0.88386
3752875.43	1.66657	1.52580	1.40217	1.29312	1.19703	1.11215	1.04722	0.98205	0.92357
3752825.43	1.88091	1.69493	1.53576	1.38697	1.27143	1.17341	1.08791	1.01276	0.96049
3752775.43	2.09967	1.85609	1.65763	1.49405	1.35737	1.24170	1.13954	1.05585	0.98259
3752725.43	2.34881	2.02978	1.78483	1.59056	1.43268	1.30179	1.19145	1.09690	1.01817
3752675.43	2.61499	2.20874	1.91251	1.68579	1.50671	1.36043	1.23870	1.13598	1.04801
3752625.43	2.86932	2.37726	2.03272	1.77567	1.57547	1.41465	1.28240	1.17246	1.07837
3752575.43	3.05747	2.51360	2.13492	1.85416	1.63680	1.46377	1.32239	1.20465	1.10611
3752525.43	3.13616	2.59518	2.20614	1.91383	1.68656	1.50474	1.35641	1.23300	1.12908
3752475.43	3.12629	2.62127	2.24217	1.95021	1.71998	1.53460	1.38259	1.25597	1.14879
3752425.43	3.07451	2.60819	2.24795	1.96430	1.73721	1.55237	1.39941	1.27161	1.16333
3752375.43	3.00732	2.57151	2.23075	1.95911	1.73898	1.55802	1.40731	1.28035	1.17215
3752325.43	2.93095	2.51989	2.19752	1.93892	1.72776	1.55281	1.40606	1.28164	1.17511
3752275.43	2.84174	2.45555	2.15178	1.90700	1.70600	1.53845	1.39702	1.27639	1.17254
3752225.43	2.73522	2.37759	2.09441	1.86477	1.67505	1.51605	1.38096	1.26506	1.16474
3752175.43	2.60850	2.28500	2.02553	1.81297	1.63588	1.48628	1.35842	1.24806	1.15201
3752125.43	2.46285	2.17841	1.94575	1.75230	1.58924	1.45071	1.33080	1.22659	1.13532
3752075.43	2.30562	2.06196	1.85770	1.68465	1.53660	1.40883	1.29767	1.20025	1.11455
3752025.43	2.14281	1.93847	1.76259	1.61171	1.47912	1.36311	1.26105	1.17076	1.09048
3751975.43	1.98678	1.81673	1.66674	1.53428	1.41705	1.31299	1.22031	1.13746	1.06328
3751925.43	1.84054	1.69914	1.57180	1.45727	1.35427	1.26154	1.17794	1.10243	1.03407
3751875.43	1.70508	1.58710	1.47907	1.38038	1.29035	1.20914	1.13416	1.06574	1.00323
3751825.43	1.58477	1.48529	1.39300	1.30763	1.22882	1.15615	1.08928	1.02772	0.97125
3751775.43	1.47676	1.39171	1.31275	1.23870	1.16956	1.10520	1.04538	0.98980	0.93841
3751725.43	1.37897	1.30639	1.23776	1.17308	1.11229	1.05607	1.00256	0.95249	0.90566
3751675.43	1.29255	1.22968	1.16979	1.11297	1.05919	1.00841	0.96073	0.91604	0.87355
3751625.43	1.21461	1.15995	1.10697	1.05680	1.00936	0.96397	0.92093	0.88018	0.84185
3751575.43	1.14364	1.09548	1.04909	1.00457	0.96197	0.92175	0.88322	0.84631	0.81123
3751525.43	1.08025	1.03764	0.99642	0.95668	0.91849	0.88187	0.84701	0.81352	0.78156
3751475.43	1.02260	0.98470	0.94789	0.91225	0.87787	0.84478	0.81298	0.78250	0.75330
3751425.43	0.96913	0.93529	0.90231	0.87099	0.83992	0.80992	0.78099	0.75315	0.72641

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
 INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
 L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
 L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
 L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)

Brodiaea_HRA

(METERS) | 477949.97

3752975.43 | 0.80229
3752925.43 | 0.83683
3752875.43 | 0.87071
3752825.43 | 0.90220
3752775.43 | 0.91794
3752725.43 | 0.94827
3752675.43 | 0.97410
3752625.43 | 0.99738
3752575.43 | 1.02081
3752525.43 | 1.04026
3752475.43 | 1.05726
3752425.43 | 1.07060
3752375.43 | 1.07917
3752325.43 | 1.08312
3752275.43 | 1.08241
3752225.43 | 1.07724
3752175.43 | 1.06802
3752125.43 | 1.05485
3752075.43 | 1.03846
3752025.43 | 1.01877
3751975.43 | 0.99676
3751925.43 | 0.97243
3751875.43 | 0.94604
3751825.43 | 0.91878
3751775.43 | 0.89073
3751725.43 | 0.86203
3751675.43 | 0.83359
3751625.43 | 0.80559
3751575.43 | 0.77792
3751525.43 | 0.75142
3751475.43 | 0.72582
3751425.43 | 0.70087

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

3753058.53 | 0.85068 0.90846 0.96540 1.01975 1.07249 1.12107 1.15596 1.18504 1.12493
3752958.53 | 0.94606 1.01765 1.08799 1.15572 1.22008 1.27924 1.32006 1.37074 1.40449
3752858.53 | 1.06354 1.15468 1.24388 1.32977 1.41006 1.48370 1.53761 1.59750 1.65305
3752758.53 | 1.21294 1.33227 1.44917 1.56065 1.66531 1.75917 1.84210 1.91471 1.97139
3752658.53 | 1.41142 1.57279 1.73093 1.88235 2.02169 2.14736 2.25545 2.34954 2.42559
3752558.53 | 1.68713 1.91831 2.14576 2.35982 2.55704 2.73496 2.88944 3.01931 3.11541
3752458.53 | 2.10225 2.46492 2.81415 3.14199 3.44763 3.73398 3.98549 4.18283 4.30950
3752358.53 | 2.81621 3.46586 4.07528 4.65391 5.22536 5.80518 6.38119 6.80792 7.01402
3752258.53 | 4.43206 5.93243 7.35300 8.86760 10.72561 13.27982 17.24640 20.98806 21.38601
3752158.53 | 12.79133 22.40741 22.94954 26.97506 31.86134 20.93636 15.90163 13.90969 13.68993
3752058.53 | 10.66418 10.82523 9.69800 8.72766 7.90839 7.25873 6.77240 6.49961 6.41112
3751958.53 | 3.79588 4.41673 4.61897 4.61808 4.53455 4.42887 4.33120 4.26874 4.25477
3751858.53 | 2.42694 2.75764 2.96277 3.07393 3.12442 3.14199 3.14439 3.15061 3.16454
3751758.53 | 1.81912 2.02366 2.17574 2.28266 2.35541 2.40393 2.43977 2.46920 2.49592
3751658.53 | 1.46828 1.60738 1.72080 1.80994 1.87892 1.93214 1.97406 2.01143 2.04209
3751558.53 | 1.23581 1.33705 1.42410 1.49671 1.55689 1.60683 1.64808 1.68422 1.71575
3751458.53 | 1.06871 1.14595 1.21461 1.27423 1.32519 1.36944 1.40698 1.44138 1.47041

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Brodiaea_HRA
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of Y and X coordinates and 10 columns of concentration values. Rows include source IDs like 3753058.53, 3752958.53, etc.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475868.56 475968.56 476068.56 476168.56 476268.56 476368.56 476468.56 476568.56 476668.56

Table with 10 columns of Y and X coordinates and 10 columns of concentration values. Rows include source IDs like 3753058.53, 3752958.53, etc.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Brodiaea_HRA

Y-COORD | X-COORD (METERS)
(METERS) | 476768.56 476868.56 476968.56 477068.56 477168.56 477268.56 477368.56 477468.56

Table with 9 columns of coordinates and values. Rows include 3753058.53, 3752958.53, 3752858.53, etc.

AERMOD - VERSION 15181 Brodiaea HRA Concentrations 02/05/17
AERMET - VERSION 14134 Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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MODELOPTs: RegDEFAULT CONC ELEV URBAN

THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , . . .

NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART

CONC OF UNITEMIS IN MICROGRAMS/M**3

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns of coordinates and values. Rows include 3755487.10, 3755387.10, 3755287.10, etc.

AERMOD - VERSION 15181 Brodiaea HRA Concentrations 02/05/17
AERMET - VERSION 14134 Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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MODELOPTs: RegDEFAULT CONC ELEV URBAN

THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART

CONC OF UNITEMIS IN MICROGRAMS/M**3

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project:))

Brodiaea_HRA

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97 477749.97 477799.97 477849.97 477899.97

Table with 10 columns of numerical data representing coordinates and concentrations for various sites (e.g., 3752975.43, 5.86876, etc.).

AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477949.97

Table with 2 columns of numerical data representing coordinates and concentrations for various sites (e.g., 3752975.43, 2.79754, etc.).

Brodiaea_HRA

3751825.43 | 2.27626
3751775.43 | 2.10450
3751725.43 | 1.94951
3751675.43 | 1.81144
3751625.43 | 1.68757
3751575.43 | 1.57497
3751525.43 | 1.47444
3751475.43 | 1.38324
3751425.43 | 1.29942

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

Table with 10 columns of concentration values for various Y and X coordinates. Values range from approximately 0.2 to 0.4 micrograms/m3.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of concentration values for various Y and X coordinates. Values range from approximately 0.3 to 0.7 micrograms/m3.

Brodiaea_HRA

3751558.53	0.38470	0.40848	0.43456	0.46331	0.49488	0.52984	0.56859	0.61163	0.65956
3751458.53	0.37479	0.39721	0.42171	0.44854	0.47797	0.51031	0.54593	0.58525	0.62871

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
 INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
 L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
 L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
 L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)								
(METERS)	475868.56	475968.56	476068.56	476168.56	476268.56	476368.56	476468.56	476568.56	476668.56

3753058.53	0.84890	0.89388	0.99264	1.10877	1.24625	1.41021	1.60717	1.84534	2.13420
3752958.53	0.88001	0.95009	1.04204	1.23006	1.39600	1.59836	1.84780	2.08917	2.46524
3752858.53	0.90768	1.01208	1.13667	1.28741	1.47231	1.70117	1.99069	2.36098	2.84581
3752758.53	0.93040	1.04091	1.17402	1.33625	1.53732	1.79139	2.11798	2.54719	3.13113
3752658.53	0.94701	1.06182	1.20111	1.37229	1.58664	1.85927	2.21679	2.69565	3.36439
3752558.53	0.95637	1.07398	1.21685	1.39284	1.61457	1.89885	2.27339	2.78230	3.50520
3752458.53	0.95816	1.07614	1.21940	1.39626	1.61853	1.90386	2.27978	2.79143	3.51696
3752358.53	0.95175	1.06773	1.20824	1.38112	1.59713	1.87308	2.23348	2.71766	3.39528
3752258.53	0.93761	1.04938	1.18417	1.34866	1.55259	1.80990	2.14050	2.57719	3.16923
3752158.53	0.91640	1.02230	1.14887	1.30188	1.48927	1.72207	2.01598	2.39202	2.88631
3752058.53	0.88930	0.98801	1.10478	1.24433	1.41279	1.61840	1.87229	2.18967	2.59120
3751958.53	0.85802	0.94885	1.05519	1.18062	1.32952	1.50814	1.72303	1.98532	2.30638
3751858.53	0.82337	0.90600	1.00167	1.11303	1.24339	1.39681	1.57827	1.79365	2.04947
3751758.53	0.78722	0.86184	0.94727	1.04544	1.15799	1.28894	1.44083	1.61706	1.82060
3751658.53	0.74994	0.81687	0.89266	0.97872	1.07666	1.18804	1.31520	1.45963	1.62106
3751558.53	0.71305	0.77290	0.83981	0.91500	0.99935	1.09439	1.20091	1.31923	1.44870
3751458.53	0.67656	0.72988	0.78912	0.85496	0.92755	1.00849	1.09784	1.19535	1.29976

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
 INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
 L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
 L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
 L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)							
(METERS)	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56

3753058.53	2.48248	2.89354	3.41854	4.06032	4.35285	4.55643	4.69260	4.66623	
3752958.53	3.04104	3.65844	4.41537	5.28172	6.13920	6.75237	6.86421	6.42880	
3752858.53	3.49254	4.36317	5.53808	7.07853	8.86514	10.32923	10.58820	9.49010	
3752758.53	3.94726	5.13314	6.91712	9.67549	13.77408	18.32466	19.17161	15.47597	
3752658.53	4.33945	5.84702	8.36352	12.99643	22.70096	43.97357	49.62642	28.36924	
3752558.53	4.58303	6.31185	9.38198	15.75145	33.34703	134.15031	222.70058	53.33164	
3752458.53	4.59901	6.33279	9.40007	15.71295	32.72610	112.33651	652.76746	77.05055	
3752358.53	4.38162	5.89971	8.42244	13.04569	22.55699	42.81100	61.33152	39.07342	
3752258.53	3.99845	5.20452	7.02981	9.88387	14.31882	19.78742	21.80164	18.14904	
3752158.53	3.54733	4.44908	5.69515	7.38360	9.47189	11.32259	11.70381	10.51005	
3752058.53	3.10158	3.76002	4.59608	5.60524	6.65307	7.39746	7.48652	6.94662	
3751958.53	2.70015	3.17928	3.74077	4.35319	4.91288	5.25437	5.26650	4.99014	
3751858.53	2.34910	2.69818	3.08358	3.46912	3.78019	3.95175	3.94245	3.78035	
3751758.53	2.05055	2.30347	2.57280	2.82107	3.00979	3.10206	3.08737	2.98055	
3751658.53	1.79855	1.98635	2.17424	2.33842	2.45522	2.50703	2.49208	2.42139	
3751558.53	1.58678	1.72608	1.85944	1.97067	2.04660	2.07544	2.06177	2.01221	
3751458.53	1.40804	1.51300	1.60967	1.68684	1.73615	1.75387	1.74182	1.70529	

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Brodiaea_HRA

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns of concentration values for various Y-coordinates ranging from 3755487.10 to 3753087.10.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97 477749.97 477799.97 477849.97 477899.97

Table with 10 columns of concentration values for various Y-coordinates ranging from 3752975.43 to 3751925.43.

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Brodiaea_HRA

3751875.43	3.46951	3.34785	3.21585	3.07783	2.93741	2.80156	2.66405	2.53086	2.40293
3751825.43	3.09259	2.99557	2.88951	2.77761	2.66264	2.54692	2.43269	2.32128	2.21460
3751775.43	2.77620	2.69650	2.61153	2.52024	2.42525	2.32879	2.23244	2.13745	2.04573
3751725.43	2.50515	2.44108	2.37033	2.29468	2.21575	2.13783	2.05629	1.97527	1.89562
3751675.43	2.27685	2.22379	2.16501	2.10184	2.03555	1.96727	1.89875	1.83089	1.76212
3751625.43	2.07936	2.03557	1.98517	1.93204	1.87700	1.81891	1.75964	1.69993	1.64117
3751575.43	1.90621	1.86884	1.82723	1.78222	1.73455	1.68623	1.63604	1.58437	1.53257
3751525.43	1.75685	1.72503	1.68956	1.65108	1.61020	1.56748	1.52401	1.47916	1.43396
3751475.43	1.62533	1.59803	1.56757	1.53446	1.49918	1.46219	1.42393	1.38481	1.34519
3751425.43	1.50695	1.48342	1.45714	1.43027	1.39966	1.36747	1.33405	1.29975	1.26488

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 477949.97

3752975.43	2.94754
3752925.43	3.16515
3752875.43	3.37995
3752825.43	3.59613
3752775.43	3.81092
3752725.43	4.01505
3752675.43	4.20805
3752625.43	4.37926
3752575.43	4.52398
3752525.43	4.63085
3752475.43	4.68630
3752425.43	4.68027
3752375.43	4.60317
3752325.43	4.45629
3752275.43	4.24928
3752225.43	4.00032
3752175.43	3.72840
3752125.43	3.44719
3752075.43	3.17603
3752025.43	2.91919
3751975.43	2.68555
3751925.43	2.47321
3751875.43	2.28076
3751825.43	2.11014
3751775.43	1.95719
3751725.43	1.81859
3751675.43	1.69466
3751625.43	1.58304
3751575.43	1.48113
3751525.43	1.38986
3751475.43	1.30678
3751425.43	1.23011

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

3753058.53	0.25393	0.26674	0.28058	0.29568	0.31212	0.33000	0.34960	0.37109	0.39483
------------	---------	---------	---------	---------	---------	---------	---------	---------	---------

Brodiaea_HRA

Table with 10 columns of numerical data representing HRA concentrations for various source IDs (e.g., 3752958.53, 3752858.53, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of numerical data representing micrograms per cubic meter for various source IDs (e.g., 3753058.53, 3752958.53, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475868.56 475968.56 476068.56 476168.56 476268.56 476368.56 476468.56 476568.56 476668.56

Table with 10 columns of numerical data representing micrograms per cubic meter for various source IDs (e.g., 3753058.53, 3752958.53, etc.).

Brodiaea_HRA

3752058.53	0.88902	0.98677	1.10209	1.23943	1.40449	1.60482	1.85046	2.15475	2.53528
3751958.53	0.85556	0.94501	1.04939	1.17202	1.31685	1.48957	1.69577	1.94526	2.24718
3751858.53	0.81915	0.90015	0.99357	1.10186	1.22798	1.37554	1.54880	1.75267	1.99212
3751758.53	0.78170	0.85456	0.93765	1.03274	1.14116	1.26662	1.41118	1.57745	1.76734
3751658.53	0.74349	0.80863	0.88213	0.96524	1.05938	1.16583	1.28659	1.42256	1.57269
3751558.53	0.70601	0.76412	0.82885	0.90132	0.98225	1.07296	1.17394	1.28511	1.40526
3751458.53	0.66917	0.72085	0.77810	0.84149	0.91102	0.98818	1.07276	1.16423	1.26097

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)							
(METERS)	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56

3753058.53	2.78523	3.27685	3.88750	4.49268	5.03811	5.32807	5.43513	5.15373
3752958.53	3.26534	3.97817	4.87355	5.92508	6.98740	7.74378	7.83854	7.22505
3752858.53	3.74783	4.75287	6.15207	8.05749	10.35742	12.28072	12.52644	10.91591
3752758.53	4.21856	5.57630	7.69328	11.13616	16.60987	23.09716	24.08424	18.33889
3752658.53	4.59635	6.28806	9.21063	14.89824	27.98814	61.18324	70.30221	34.38637
3752558.53	4.78434	6.65689	10.05414	17.35274	39.03361	187.85931	389.07547	58.77993
3752458.53	4.71030	6.49938	9.65791	16.10044	32.84188	95.82280	149.45459	49.77605
3752358.53	4.40147	5.89233	8.31489	12.55964	20.40879	32.46600	34.87922	24.83940
3752258.53	3.95233	5.09354	6.76651	9.23832	12.66315	15.89936	16.10427	13.59335
3752158.53	3.46742	4.30120	5.41541	6.83970	8.42117	9.54935	9.51942	8.56492
3752058.53	3.01121	3.61222	4.34984	5.19115	5.98290	6.44770	6.40088	5.93611
3751958.53	2.61186	3.04588	3.53701	4.04437	4.46889	4.68584	4.64266	4.39395
3751858.53	2.26806	2.58260	2.91827	3.23717	3.47340	3.58322	3.54788	3.39798
3751758.53	1.97834	2.20507	2.43922	2.64457	2.78928	2.84818	2.81986	2.71940
3751658.53	1.73508	1.90301	2.06592	2.20184	2.29179	2.32440	2.30175	2.23438
3751558.53	1.53132	1.65553	1.77099	1.86321	1.92205	1.93930	1.92103	1.87333
3751458.53	1.35965	1.45309	1.53677	1.60085	1.63898	1.64928	1.63433	1.59894

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)				
(METERS)	477281.21	477381.21	477481.21	477581.21	477681.21

3755487.10	0.22358	0.22357	0.22317	0.22214	0.22163
3755387.10	0.23604	0.23768	0.23720	0.23605	0.23623
3755287.10	0.25198	0.25328	0.25143	0.25143	0.25169
3755187.10	0.26852	0.26936	0.26789	0.26644	0.26711
3755087.10	0.28962	0.28762	0.28684	0.28522	0.28652
3754987.10	0.31151	0.30976	0.30860	0.30706	0.30666
3754887.10	0.33593	0.33304	0.33200	0.32996	0.32733
3754787.10	0.36009	0.36031	0.35574	0.35678	0.35368
3754687.10	0.39109	0.38863	0.38684	0.38731	0.38355
3754587.10	0.42668	0.42247	0.42082	0.42041	0.41763
3754487.10	0.46238	0.46287	0.46094	0.45718	0.45139
3754387.10	0.50935	0.50382	0.50149	0.50310	0.48965
3754287.10	0.56155	0.55789	0.55508	0.55386	0.54421
3754187.10	0.63090	0.63195	0.62852	0.62114	0.60835
3754087.10	0.70911	0.69960	0.69526	0.69630	0.67028
3753987.10	0.79589	0.79407	0.79200	0.77906	0.75696
3753887.10	0.90765	0.90992	0.90263	0.88521	0.85658
3753787.10	1.02971	1.03616	1.03501	1.01132	0.97832
3753687.10	1.19071	1.23031	1.21450	1.18015	1.14080

Brodiaea_HRA

3753587.10	1.40795	1.42131	1.41552	1.37020	1.31719
3753487.10	1.66926	1.68358	1.66525	1.63415	1.54721
3753387.10	2.03219	2.04011	2.01313	1.97244	2.06199
3753287.10	2.55475	2.56470	2.54941	2.65778	2.49054
3753187.10	3.32446	3.36192	3.54345	3.29396	2.98786
3753087.10	4.88865	4.88995	4.68389	4.24604	3.73800

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
 INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)								
(METERS)	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97

3752975.43	8897.35612	8383.52119	8031.22384	7694.15234	7308.56213	6890.49875	6466.02571	6050.89165	5660.29035
3752925.43	10789.19044	10202.63138	9697.57288	9139.06981	8535.00250	7922.69803	7345.26153	6804.42606	6304.03954
3752875.43	13510.82379	12684.62691	11819.56670	10898.80979	9993.29879	9142.83615	8359.37034	7646.57098	7009.74846
3752825.43	17512.29535	16048.19139	14529.79307	13065.61912	11732.22836	10546.68322	9501.30941	8587.00201	7787.57225
3752775.43	23295.62114	20514.99493	17952.24091	15706.94251	13786.06686	12162.30211	10785.01616	9634.62521	8660.27924
3752725.43	31648.16826	26448.15552	22235.23424	18867.38230	16183.69686	14031.94587	12288.89497	10856.65106	9667.11250
3752675.43	43593.21130	34328.07851	27671.69494	22789.12780	19102.45560	16278.12693	14050.22116	12270.83439	10821.82336
3752625.43	60659.58328	44794.94468	34567.76919	27577.91152	22580.51246	18875.13852	16046.53706	13820.17685	12058.10965
3752575.43	82662.03003	57370.77099	42456.00058	32862.23924	26283.15729	21585.44668	18092.30554	15418.17039	13318.89942
3752525.43	98940.33609	67636.45798	49279.54077	37611.65179	29730.01040	24151.84816	20050.07445	16941.10748	14534.16851
3752475.43	97011.18375	70017.64784	52370.52156	40454.92952	32128.98697	26122.60827	21663.43836	18269.86868	15626.63464
3752425.43	80394.37120	63391.69663	50238.71430	40274.02341	32737.03545	27004.45636	22595.47124	19154.63369	16433.12922
3752375.43	61794.40511	52495.91974	44285.69957	37241.32275	31364.83886	26543.38689	22614.92330	19417.62831	16809.44390
3752325.43	47629.98237	42044.38381	37135.82467	32633.73632	28534.42746	24893.61960	21726.11484	19006.00874	16686.89334
3752275.43	37881.93204	33924.91284	30646.14286	27759.46057	25054.24882	22501.87188	20138.49179	17994.05843	16080.36882
3752225.43	30983.10662	28086.87682	25559.12602	23473.51243	21629.72310	19889.47679	18207.90508	16605.12077	15105.85846
3752175.43	25784.12621	23772.25491	21754.44082	20046.23563	18635.12327	17384.57631	16195.85993	15035.97895	13909.59245
3752125.43	21711.07384	20402.04611	18860.86387	17412.83117	16206.16564	15216.37570	14326.89934	13480.67122	12649.21835
3752075.43	18479.62385	17665.54835	16560.48959	15375.06872	14306.70669	13422.33364	12685.27979	12030.18797	11411.37961
3752025.43	15872.41917	15377.19391	14627.98373	13729.45874	12808.71677	12000.57824	11333.07592	10773.45759	10275.49476
3751975.43	13787.25267	13483.40943	12992.10821	12323.47660	11570.35582	10848.33512	10224.70927	9709.04632	9276.33237
3751925.43	12088.02129	11898.38065	11578.95088	11111.45858	10526.43957	9907.18539	9333.09009	8841.98847	8434.63962
3751875.43	10676.69445	10557.03435	10347.07065	10029.26589	9596.37966	9100.82937	8590.67270	8128.55489	7735.46893
3751825.43	9514.65226	9440.28372	9297.36157	9082.22673	8772.90720	8378.87219	7946.01850	7525.66311	7154.13263
3751775.43	8536.33216	8490.97248	8392.82308	8245.10815	8028.65002	7733.56638	7379.64367	7009.17401	6660.20380
3751725.43	7698.03119	7679.72602	7606.75871	7500.48946	7349.90179	7142.44891	6865.71544	6551.71711	6234.63697
3751675.43	6986.66319	6987.34039	6934.64094	6854.64370	6747.21990	6594.43644	6387.01135	6135.14482	5858.56955
3751625.43	6370.04814	6387.03320	6347.90539	6285.48651	6208.06138	6099.05198	5945.24398	5744.23333	5513.38482
3751575.43	5829.81760	5857.47716	5834.00710	5784.39037	5722.18566	5646.08204	5536.66960	5383.35661	5193.69198
3751525.43	5360.27512	5397.87200	5385.77768	5346.09871	5295.17084	5235.01382	5155.57803	5041.89895	4892.11500
3751475.43	4946.67837	4990.93680	4989.12111	4957.83648	4914.84067	4866.89834	4807.29655	4723.91146	4609.14143
3751425.43	4575.27793	4624.93770	4631.91938	4612.87343	4575.87189	4535.05020	4489.36445	4428.41526	4342.18354

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
 INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)								
(METERS)	477949.97								

3752975.43	5288.27441
3752925.43	5843.42681
3752875.43	6439.79200
3752825.43	7091.67191
3752775.43	7830.08087
3752725.43	8672.13014
3752675.43	9623.61114
3752625.43	10627.40462
3752575.43	11638.74930

Brodiaea_HRA

3752525.43 | 12625.63056
3752475.43 | 13529.05710
3752425.43 | 14251.06904
3752375.43 | 14667.21792
3752325.43 | 14716.38153
3752275.43 | 14384.61078
3752225.43 | 13725.11574
3752175.43 | 12840.60449
3752125.43 | 11831.05039
3752075.43 | 10800.56068
3752025.43 | 9802.74809
3751975.43 | 8895.08775
3751925.43 | 8094.97335
3751875.43 | 7407.95116
3751825.43 | 6834.58826
3751775.43 | 6353.47942
3751725.43 | 5941.92077
3751675.43 | 5587.10467
3751625.43 | 5272.17689
3751575.43 | 4983.05737
3751525.43 | 4717.95060
3751475.43 | 4468.22721
3751425.43 | 4229.26324

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 10 columns: Y-COORD (METERS), X-COORD (METERS), and 8 numerical columns. Data rows include coordinates and concentration values.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 10 columns: Y-COORD (METERS), X-COORD (METERS), and 8 numerical columns. Data rows include coordinates and concentration values.

Brodiaea_HRA

Table with 10 columns of numerical data representing HRA concentrations for various locations and time periods.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts)
PAGE 87

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS), listing coordinates for various points.

Large table with 10 columns of numerical data representing HRA concentrations at specific coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts)
PAGE 88

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS), listing coordinates for various points.

Large table with 10 columns of numerical data representing HRA concentrations at specific coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts)
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Brodiaea_HRA

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	477281.21	477381.21	477481.21	477581.21	477681.21
3755487.10	427.93494	433.03399	433.75117	424.63588	416.29479
3755387.10	451.94882	458.64879	458.72030	448.71941	441.16448
3755287.10	480.42098	486.62020	484.89243	474.86703	467.97307
3755187.10	510.81990	516.62569	514.37326	502.23115	496.45436
3755087.10	546.57982	550.07316	547.33459	534.31699	529.83547
3754987.10	584.85021	588.29792	584.12503	570.69232	565.95330
3754887.10	627.29445	629.86647	624.52107	610.04778	605.37034
3754787.10	672.77290	676.98746	668.07029	655.11602	651.39661
3754687.10	726.16743	728.59392	719.44839	706.03662	702.69831
3754587.10	786.69513	787.87190	776.99123	763.06009	760.02004
3754487.10	853.25676	856.00232	842.88213	827.59026	822.32710
3754387.10	932.18553	931.70555	915.89576	903.36423	891.87216
3754287.10	1022.47121	1021.74184	1003.43993	989.57241	971.41640
3754187.10	1130.11022	1129.26920	1109.08371	1091.06656	1059.35195
3754087.10	1255.55705	1250.26073	1226.49209	1206.81706	1156.71141
3753987.10	1403.87237	1398.07549	1372.42261	1340.18576	1271.13066
3753887.10	1584.92348	1578.07331	1546.19544	1496.97915	1407.28329
3753787.10	1802.02463	1793.32669	1754.46154	1681.65980	1573.60869
3753687.10	2074.97068	2068.88523	2011.08674	1906.14615	1781.51751
3753587.10	2424.20148	2407.22092	2326.55331	2181.85003	2031.28476
3753487.10	2875.20319	2848.35044	2726.85037	2534.61645	2343.32527
3753387.10	3482.74447	3437.67512	3249.78762	2992.38587	2748.31944
3753287.10	4331.34864	4253.46555	3961.39188	3608.22970	3282.21520
3753187.10	5571.20248	5427.39065	4964.63395	4429.69162	4036.01437
3753087.10	7506.24244	7217.90516	6447.82019	5692.28455	5297.89281

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	477499.97	477549.97	477599.97	477649.97	477699.97	477749.97	477799.97	477849.97	477899.97
3752975.43	5.22894	5.02389	4.77335	4.49226	4.19775	3.90495	3.62111	3.13736	2.93580
3752925.43	6.16224	5.87178	5.52274	5.14296	4.75557	4.37309	4.01536	3.68315	3.37866
3752875.43	7.38263	6.95599	6.45909	5.93434	5.41510	4.92263	4.46683	4.05201	3.68245
3752825.43	9.03403	8.38705	7.65710	6.91046	6.20131	5.55441	4.97505	4.46308	4.01251
3752775.43	11.32153	10.29216	9.18664	8.11782	7.14448	6.28723	5.53987	4.90491	4.36192
3752725.43	14.64116	12.90066	11.16811	9.59721	8.24442	7.10791	6.16282	5.37712	4.72319
3752675.43	19.66539	16.57606	13.75905	11.40898	9.51198	8.01202	6.81591	5.86128	5.08990
3752625.43	27.60483	21.71692	17.02958	13.51657	10.91249	8.96587	7.48797	6.33966	5.44359
3752575.43	40.70459	28.81338	20.99460	15.84812	12.35437	9.90796	8.13041	6.80058	5.77917
3752525.43	61.35612	37.58301	25.25022	18.16256	13.73472	10.77966	8.71278	7.20524	6.07362
3752475.43	85.40425	45.64038	28.78779	20.00260	14.80758	11.46321	9.17420	7.53322	6.31049
3752425.43	86.16221	47.01780	29.78278	20.68468	15.28402	11.80561	9.42647	7.72369	6.46046
3752375.43	61.26078	39.77982	27.27524	19.72940	14.90948	11.66827	9.39179	7.73385	6.48923
3752325.43	39.42559	29.89150	22.65149	17.45025	13.72978	11.03296	9.03959	7.53515	6.37680
3752275.43	26.32909	21.84284	17.90609	14.65893	12.06573	10.02143	8.41185	7.13795	6.12248
3752225.43	18.69885	16.32143	14.07351	12.06332	10.32564	8.85838	7.62889	6.60583	5.75588
3752175.43	13.97862	12.58797	11.20873	9.91744	8.74587	7.70434	6.79140	5.99882	5.31478
3752125.43	10.87238	10.00024	9.10115	8.23131	7.41743	6.67767	6.00026	5.39287	4.85214
3752075.43	8.73015	8.15289	7.53856	6.92729	6.34153	5.79231	5.28415	4.81814	4.39560
3752025.43	7.17122	6.77413	6.34073	5.90977	5.47548	5.06083	4.67090	4.30766	3.97139
3751975.43	6.02193	5.73802	5.42216	5.09331	4.76503	4.44621	4.14203	3.85504	3.58709
3751925.43	5.13866	4.92971	4.69391	4.44424	4.19070	3.94057	3.69865	3.46777	3.24929
3751875.43	4.43622	4.27908	4.09986	3.90750	3.70928	3.51614	3.32121	3.13306	2.95332
3751825.43	3.88146	3.76027	3.62100	3.46994	3.31238	3.15269	2.99473	2.84089	2.69393

Brodiaea_HRA

3751775.43	3.42882	3.33199	3.22362	3.10377	2.97701	2.84713	2.71691	2.58852	2.46469
3751725.43	3.05090	2.97503	2.88704	2.79019	2.68732	2.58450	2.47656	2.36911	2.26357
3751675.43	2.73900	2.67748	2.60597	2.52685	2.44228	2.35417	2.26510	2.17651	2.08686
3751625.43	2.47433	2.42451	2.36436	2.29911	2.23018	2.15657	2.08090	2.00435	1.92882
3751575.43	2.24634	2.20446	2.15567	2.10134	2.04270	1.98243	1.91932	1.85406	1.78847
3751525.43	2.05240	2.01724	1.97628	1.93056	1.88104	1.82862	1.77476	1.71890	1.66242
3751475.43	1.88393	1.85414	1.81943	1.78064	1.73851	1.69375	1.64700	1.59889	1.54999
3751425.43	1.73433	1.70892	1.67935	1.64829	1.61219	1.57372	1.53340	1.49173	1.44917

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 477949.97

3752975.43	2.73099
3752925.43	3.01708
3752875.43	3.35265
3752825.43	3.61876
3752775.43	3.89751
3752725.43	4.17830
3752675.43	4.45945
3752625.43	4.72770
3752575.43	4.97805
3752525.43	5.19925
3752475.43	5.37574
3752425.43	5.49561
3752375.43	5.53096
3752325.43	5.46831
3752275.43	5.30253
3752225.43	5.04816
3752175.43	4.72984
3752125.43	4.37320
3752075.43	4.01200
3752025.43	3.66153
3751975.43	3.33912
3751925.43	3.04627
3751875.43	2.78273
3751825.43	2.55100
3751775.43	2.34553
3751725.43	2.16168
3751675.43	1.99904
3751625.43	1.85412
3751575.43	1.72329
3751525.43	1.60712
3751475.43	1.50234
3751425.43	1.40658

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
 (METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

3753058.53	0.24544	0.25749	0.27048	0.28452	0.29990	0.31652	0.33472	0.35460	0.37649
3752958.53	0.24769	0.25998	0.27330	0.28769	0.30338	0.32045	0.33913	0.35970	0.38227
3752858.53	0.24954	0.26211	0.27567	0.29037	0.30634	0.32380	0.34294	0.36401	0.38730
3752758.53	0.25106	0.26381	0.27755	0.29252	0.30877	0.32661	0.34608	0.36760	0.39135
3752658.53	0.25230	0.26513	0.27903	0.29410	0.31063	0.32869	0.34841	0.37031	0.39450

Brodiaea_HRA

Table with 10 columns of numerical data representing HRA concentrations for various locations (e.g., 3752558.53, 0.25310, 0.26601, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of numerical data representing micrograms per cubic meter for various locations (e.g., 3753058.53, 0.40070, 0.42746, etc.).

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475868.56 475968.56 476068.56 476168.56 476268.56 476368.56 476468.56 476568.56 476668.56

Table with 10 columns of numerical data representing micrograms per cubic meter for various locations (e.g., 3753058.53, 0.79978, 0.80372, etc.).

Brodiaea_HRA

3751458.53 | 0.67042 0.72400 0.78374 0.85040 0.92430 1.00720 1.09956 1.20170 1.31317
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)							
(METERS)	476768.56	476868.56	476968.56	477068.56	477168.56	477268.56	477368.56	477468.56

3753058.53	2.05464	2.36171	2.75261	3.43157	3.46302	3.64491	3.83230	4.16203
3752958.53	2.63681	3.11245	3.67999	4.31907	4.96498	5.49336	5.74673	5.62911
3752858.53	3.00261	3.65674	4.49900	5.55182	6.74617	7.82979	8.38731	8.12279
3752758.53	3.37947	4.25790	5.49344	7.23931	9.57691	12.15083	13.68926	12.95813
3752658.53	3.72736	4.85067	6.58313	9.39174	14.11016	21.35115	27.38855	24.28646
3752558.53	3.98854	5.32203	7.53081	11.60829	20.39573	43.38455	89.23311	60.50603
3752458.53	4.09579	5.51952	7.94565	12.66912	24.31674	71.33369	196.06946	159.60636
3752358.53	4.01267	5.35483	7.57816	11.68998	20.61544	44.76286	96.32357	66.72417
3752258.53	3.76219	4.89912	6.65293	9.51782	14.47825	22.55413	29.20396	25.56557
3752158.53	3.41275	4.30452	5.57429	7.40372	9.97606	12.94060	14.51128	13.46057
3752058.53	3.03388	3.70757	4.59599	5.74750	7.11361	8.35891	8.87356	8.41648
3751958.53	2.67293	3.17593	3.79260	4.51893	5.27526	5.86304	6.06066	5.83369
3751858.53	2.34593	2.72035	3.15441	3.62439	4.05718	4.36019	4.44353	4.31090
3751758.53	2.06122	2.33796	2.64730	2.95643	3.22241	3.39005	3.42656	3.33771
3751658.53	1.81690	2.02564	2.24543	2.45323	2.62025	2.71769	2.73309	2.67438
3751558.53	1.60906	1.76618	1.92453	2.06717	2.17671	2.23443	2.23984	2.19846
3751458.53	1.43194	1.55178	1.66793	1.76797	1.84033	1.87719	1.87772	1.84694

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)			
(METERS)	477281.21	477381.21	477481.21	477581.21

3755487.10	0.21258	0.21273	0.21260	0.21201	0.21167
3755387.10	0.22403	0.22574	0.22558	0.22489	0.22516
3755287.10	0.23862	0.24007	0.23871	0.23908	0.23941
3755187.10	0.25370	0.25481	0.25385	0.25293	0.25362
3755087.10	0.27282	0.27147	0.27120	0.27015	0.27141
3754987.10	0.29256	0.29156	0.29102	0.29006	0.28985
3754887.10	0.31448	0.31261	0.31225	0.31089	0.30876
3754787.10	0.33614	0.33713	0.33378	0.33516	0.33277
3754687.10	0.36369	0.36254	0.36173	0.36268	0.35993
3754587.10	0.39511	0.39269	0.39215	0.39242	0.39083
3754487.10	0.42656	0.42841	0.42780	0.42536	0.42153
3754387.10	0.46744	0.46454	0.46382	0.46615	0.45627
3754287.10	0.51255	0.51167	0.51084	0.51109	0.50524
3754187.10	0.57141	0.57489	0.57395	0.56972	0.56214
3754087.10	0.63877	0.63303	0.63187	0.63662	0.61777
3753987.10	0.71444	0.71515	0.71832	0.71145	0.69834
3753887.10	0.80990	0.81659	0.81490	0.80587	0.78821
3753787.10	0.91067	0.92218	0.92702	0.91491	0.89457
3753687.10	1.04148	1.08015	1.07578	1.05773	1.03253
3753587.10	1.21431	1.23535	1.24144	1.21818	1.18342
3753487.10	1.41747	1.44330	1.44512	1.43560	1.37756
3753387.10	1.69128	1.71880	1.72211	1.71177	1.68362
3753287.10	2.07191	2.11092	2.13586	2.11158	2.03003
3753187.10	2.60934	2.68464	2.69924	2.58269	2.40732
3753087.10	3.40157	3.49350	3.49451	3.62234	3.04314

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

Brodiaea_HRA
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97 477749.97 477799.97 477849.97 477899.97

Table with 10 columns of numerical data representing concentrations for various source IDs (e.g., 3752975.43, 8962.22227, etc.).

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477949.97

Table with 2 columns of numerical data representing concentrations for various source IDs (e.g., 3752975.43, 5303.01495, etc.).

Brodiaea_HRA

3752425.43 | 14273.61000
3752375.43 | 14689.53137
3752325.43 | 14738.14710
3752275.43 | 14405.52574
3752225.43 | 13744.94509
3752175.43 | 12859.19692
3752125.43 | 11848.32502
3752075.43 | 10816.53753
3752025.43 | 9817.47909
3751975.43 | 8908.67530
3751925.43 | 8107.51646
3751875.43 | 7419.54488
3751825.43 | 6845.33832
3751775.43 | 6363.47206
3751725.43 | 5951.22641
3751675.43 | 5595.79527
3751625.43 | 5280.31292
3751575.43 | 4990.68665
3751525.43 | 4725.12542
3751475.43 | 4474.98789
3751425.43 | 4235.64145

AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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MODELOPTs: RegDEFAULT CONC ELEV URBAN

THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): L0001757 ,L0001758 ,L0001759 ,L0001760 ,L0001761 ,
L0001762 ,L0001763 ,L0001764 ,L0001765 ,L0001766 ,L0001767 ,L0001768 ,L0001769 ,
L0001770 ,L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,L0001776 ,L0001777 ,
L0001778 ,L0001779 ,L0001780 ,L0001781 ,L0001782 ,L0001783 ,L0001784 , ...

NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART

CONC OF UNITEMIS IN MICROGRAMS/M**3

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56 474568.56 474668.56 474768.56 474868.56

Table with 10 columns of coordinates and 10 columns of concentration values for various source groups.

AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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MODELOPTs: RegDEFAULT CONC ELEV URBAN

THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): L0001757 ,L0001758 ,L0001759 ,L0001760 ,L0001761 ,
L0001762 ,L0001763 ,L0001764 ,L0001765 ,L0001766 ,L0001767 ,L0001768 ,L0001769 ,
L0001770 ,L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,L0001776 ,L0001777 ,
L0001778 ,L0001779 ,L0001780 ,L0001781 ,L0001782 ,L0001783 ,L0001784 , ...

NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART

CONC OF UNITEMIS IN MICROGRAMS/M**3

Y-COORD | X-COORD (METERS)
(METERS) | 474968.56 475068.56 475168.56 475268.56 475368.56 475468.56 475568.56 475668.56 475768.56

Table with 10 columns of coordinates and 10 columns of concentration values for various source groups.

Brodiaea_HRA

Table with 10 columns of numerical data representing concentrations for various source IDs and coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 475868.56 to 476668.56.

Table with 10 columns of numerical data representing concentrations for various source IDs and coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 476768.56 to 477468.56.

Table with 10 columns of numerical data representing concentrations for various source IDs and coordinates.

Brodiaea_HRA

Table with 10 columns of numerical data representing source group values for Brodiaea_HRA.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns of numerical data representing concentration values for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97

Table with 6 columns of numerical data representing concentration values for various source groups.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752475.4, 292.08022, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477749.97, 477799.97, 477849.97, 477899.97, 477949.97

Large table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752975.4, 23.35480, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,

Brodiaea_HRA
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

Table with 6 columns of coordinates and 6 columns of concentration values for various source IDs (e.g., 3753058.5, 3752958.5, etc.).

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474568.56 474668.56 474768.56 474868.56 474968.56

Table with 6 columns of coordinates and 6 columns of concentration values for various source IDs (e.g., 3753058.5, 3752958.5, etc.).

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475068.56 475168.56 475268.56 475368.56 475468.56

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and coordinates for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS), with 5 rows of coordinate data.

Table with 6 columns of numerical data representing concentrations and coordinates for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS), with 5 rows of coordinate data.

Table with 6 columns of numerical data representing concentrations and coordinates for various source IDs.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs and coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 6 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Table with 6 columns of numerical data representing concentrations for various source IDs and coordinates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 6 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Table with 6 columns of numerical data representing concentrations for various source IDs and coordinates.

Brodiaea_HRA

3751458.5 | 10.01243 (10080807) 10.53074 (10112824) 10.08455 (10112824) 11.27867 (11060807) 12.52754 (11060807)
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLE_WES ***
INCLUDING SOURCE(S): L0001757 ,L0001758 ,L0001759 ,L0001760 ,L0001761 ,
L0001762 ,L0001763 ,L0001764 ,L0001765 ,L0001766 ,L0001767 ,L0001768 ,L0001769 ,
L0001770 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns of coordinates and 20 rows of concentration data for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 ,L0002326 ,L0002327 ,L0002328 ,L0002329 ,
L0002330 ,L0002331 ,L0002332 ,L0002333 ,L0002334 ,L0002335 ,L0002336 ,L0002337 ,
L0002338 ,L0002339 ,L0002340 ,L0002341 ,L0002342 ,L0002343 ,L0002344 ,L0002345 ,
L0002346 ,L0002347 ,L0002348 ,L0002349 ,L0002350 ,L0002351 ,L0002352 ,...

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97

Table with 6 columns of coordinates and 20 rows of concentration data for various source IDs.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and coordinates for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ...

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477749.97, 477799.97, 477849.97, 477899.97, 477949.97.

Large table with 6 columns of numerical data representing concentrations and coordinates for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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***MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

Brodiaea_HRA

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	474068.56	474168.56	474268.56	474368.56	474468.56

3753058.5	0.85983 (12020405)	0.88444 (12020405)	0.90923 (12020405)	0.93866 (12020405)	0.96554 (12020405)
3752958.5	0.85896 (12020405)	0.88315 (12020405)	0.90867 (12020405)	0.93568 (12020405)	0.96331 (12020405)
3752858.5	0.85660 (12020405)	0.88149 (12020405)	0.90672 (12020405)	0.93275 (12020405)	0.96155 (12122005)
3752758.5	0.85459 (12020405)	0.87930 (12020405)	0.90359 (12020405)	0.93057 (12122005)	0.95847 (10112602)
3752658.5	0.85410 (12020405)	0.87773 (12020405)	0.90281 (12122005)	0.92891 (10112602)	0.95804 (10112602)
3752558.5	0.85266 (12020405)	0.87681 (10112602)	0.90132 (10112602)	0.92779 (10112602)	0.95583 (10112602)
3752458.5	0.84987 (10112602)	0.87487 (10112602)	0.89944 (10112602)	0.92565 (10112602)	0.95294 (10112602)
3752358.5	0.84831 (10112602)	0.87202 (10112602)	0.89669 (10112602)	0.92252 (10112602)	0.94872 (10112602)
3752258.5	0.84689 (10112602)	0.86900 (10112602)	0.89365 (10112602)	0.91923 (10112602)	0.94532 (10112602)
3752158.5	0.84552 (10112602)	0.86732 (10112602)	0.89077 (10112602)	0.91648 (10112602)	0.94176 (10112602)
3752058.5	0.84360 (10112602)	0.86498 (10112602)	0.88746 (10112602)	0.91377 (10112602)	0.93890 (10112602)
3751958.5	0.84215 (10112602)	0.86247 (10112602)	0.88550 (10112602)	0.91005 (10112602)	0.93508 (10112602)
3751858.5	0.84000 (10112602)	0.86088 (10112602)	0.88304 (12020405)	0.90755 (12020405)	0.93388 (12020405)
3751758.5	0.83836 (12020405)	0.85963 (12020405)	0.88263 (12020405)	0.90695 (12020405)	0.93260 (12020405)
3751658.5	0.83683 (12020405)	0.85743 (12020405)	0.87924 (12020405)	0.90168 (12020405)	0.92445 (12020405)
3751558.5	0.83273 (10112602)	0.85266 (10112602)	0.87435 (10112602)	0.89677 (10112602)	0.92169 (12122005)
3751458.5	0.83069 (10112602)	0.85080 (10112602)	0.87272 (10112602)	0.89583 (12122005)	0.92035 (12122005)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
 INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
 L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
 L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
 L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	474568.56	474668.56	474768.56	474868.56	474968.56

3753058.5	0.99636 (12020405)	1.02907 (12122005)	1.06659 (10112602)	1.10649 (10112602)	1.14684 (10112602)
3752958.5	0.99425 (12122005)	1.02872 (10112602)	1.06445 (10112602)	1.10313 (10112602)	1.14169 (10112602)
3752858.5	0.99349 (10112602)	1.02721 (10112602)	1.06203 (10112602)	1.09801 (10112602)	1.13607 (10112602)
3752758.5	0.99081 (10112602)	1.02397 (10112602)	1.05755 (10112602)	1.09376 (10112602)	1.13149 (10112602)
3752658.5	0.98799 (10112602)	1.02078 (10112602)	1.05291 (10112602)	1.08777 (10112602)	1.12652 (10112602)
3752558.5	0.98519 (10112602)	1.01605 (10112602)	1.04624 (10112602)	1.08176 (10112602)	1.11874 (10112602)
3752458.5	0.98093 (10112602)	1.01106 (10112602)	1.04256 (10112602)	1.07810 (10112602)	1.11336 (10112602)
3752358.5	0.97749 (10112602)	1.00697 (10112602)	1.03837 (10112602)	1.07188 (10112602)	1.10650 (10112602)
3752258.5	0.97266 (10112602)	1.00169 (10112602)	1.03333 (10112602)	1.06652 (10112602)	1.10073 (10112602)
3752158.5	0.96872 (10112602)	0.99733 (10112602)	1.02775 (10112602)	1.06048 (10112602)	1.09477 (10112602)
3752058.5	0.96465 (10112602)	0.99284 (10112602)	1.02280 (10112602)	1.05562 (12020405)	1.09226 (12020405)
3751958.5	0.96113 (12020405)	0.99062 (12020405)	1.02210 (12020405)	1.05751 (12020405)	1.09506 (12020405)
3751858.5	0.96168 (12020405)	0.99092 (12020405)	1.02283 (12020405)	1.05706 (12020405)	1.09255 (12020405)
3751758.5	0.95892 (12020405)	0.98690 (12020405)	1.01560 (12020405)	1.04440 (12020405)	1.07648 (12122005)
3751658.5	0.94924 (10112602)	0.97693 (12122005)	1.00876 (12122005)	1.04197 (12122005)	1.07808 (12122005)
3751558.5	0.94882 (12122005)	0.97713 (12122005)	1.00800 (12122005)	1.04045 (12122005)	1.07480 (10112602)
3751458.5	0.94676 (10112602)	0.97483 (10112602)	1.00615 (10112602)	1.03780 (10112602)	1.07025 (10112602)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
 INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
 L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
 L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
 L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	475068.56	475168.56	475268.56	475368.56	475468.56

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various locations and dates. Includes source IDs like L0002330 through L0002346.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 475568.56, 475668.56, 475768.56, 475868.56, 475968.56.

Table with 6 columns of numerical data representing concentrations for various locations and dates. Includes source IDs like L0002330 through L0002346.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 476068.56, 476168.56, 476268.56, 476368.56, 476468.56.

Table with 6 columns of numerical data representing concentrations for various locations and dates. Includes source IDs like L0002330 through L0002346.

Table with 6 columns of pollutant concentrations for Brodiaea_HRA. Rows include various pollutant types and their corresponding values in micrograms per cubic meter.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 476568.56 to 476968.56.

Table with 6 columns of pollutant concentrations for Brodiaea_HRA. Rows include various pollutant types and their corresponding values in micrograms per cubic meter.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values range from 477068.56 to 477468.56.

Table with 6 columns of pollutant concentrations for Brodiaea_HRA. Rows include various pollutant types and their corresponding values in micrograms per cubic meter.

Brodiaea_HRA

3751658.5 | 4.14319 (09102802) 5.15245 (10112824) 5.76678 (10112824) 5.39060 (10012724) 5.33115 (10031420)
3751558.5 | 3.97408 (09102806) 4.94369 (10112824) 5.26493 (10112824) 4.94839 (10012724) 4.88068 (10031420)
3751458.5 | 3.89399 (10112824) 4.71645 (10112824) 4.81959 (10112824) 4.57702 (10012724) 4.50599 (10031420)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF1 ***
INCLUDING SOURCE(S): L0002325 , L0002326 , L0002327 , L0002328 , L0002329 ,
L0002330 , L0002331 , L0002332 , L0002333 , L0002334 , L0002335 , L0002336 , L0002337 ,
L0002338 , L0002339 , L0002340 , L0002341 , L0002342 , L0002343 , L0002344 , L0002345 ,
L0002346 , L0002347 , L0002348 , L0002349 , L0002350 , L0002351 , L0002352 , ... ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns: Y-COORD (METERS), X-COORD (METERS), and four columns of concentration values. Rows range from 3755487.1 to 3753087.1.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97

Table with 6 columns: Y-COORD (METERS), X-COORD (METERS), and four columns of concentration values. Rows range from 3752975.4 to 3752375.4.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752325.4, 12.19604, 11.06799, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477749.97, 477799.97, 477849.97, 477899.97, 477949.97

Large table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752975.4, 8.29092, 8.07911, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,

Brodiaea_HRA
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

Table with 6 columns of coordinates and 20 rows of data points for Brodiaea HRA Concentrations.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474568.56 474668.56 474768.56 474868.56 474968.56

Table with 6 columns of coordinates and 20 rows of data points for Brodiaea HRA Concentrations.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)

(METERS)	475068.56	475168.56	475268.56	475368.56	475468.56
3753058.5	4.58886 (12081924)	4.57340 (08061520)	4.60735 (09110319)	4.77917 (08080720)	4.81415 (12080620)
3752958.5	3.94497 (08080720)	4.04662 (12080620)	3.89690 (12081020)	4.42138 (12121823)	4.56345 (10101021)
3752858.5	4.39534 (12080620)	4.49353 (12081020)	4.39164 (12081020)	4.32842 (12072020)	4.32616 (12081219)
3752758.5	5.21980 (12081020)	5.08491 (08080620)	5.03191 (12072020)	5.07034 (12081219)	5.11265 (12081219)
3752658.5	5.94955 (12081219)	6.03555 (12081219)	6.10473 (12081219)	6.16065 (12081219)	6.20391 (12081219)
3752558.5	7.56730 (12081219)	7.66024 (12081219)	7.73144 (12081219)	7.79061 (12081219)	7.83574 (12081219)
3752458.5	10.31523 (12081219)	10.41206 (12081219)	10.48914 (12081219)	10.55357 (12081219)	10.59913 (12081219)
3752358.5	16.27890 (12081219)	16.38761 (12081219)	16.47580 (12081219)	16.55140 (12081219)	16.60469 (12081219)
3752258.5	52.06322 (11102017)	52.86494 (11102017)	52.56148 (11102017)	54.22732 (11102017)	54.84981 (11102017)
3752158.5	32.72481 (09052507)	32.97090 (09052507)	33.16434 (09052507)	33.31252 (09052507)	33.42619 (09052507)
3752058.5	13.82159 (12081219)	13.86559 (12081219)	13.90488 (12081219)	13.93854 (12081219)	13.95295 (12081219)
3751958.5	9.35811 (12081219)	9.40306 (12081219)	9.44498 (12081219)	9.48221 (12081219)	9.51540 (12081219)
3751858.5	7.08649 (12081219)	7.13070 (12081219)	7.17145 (12081219)	7.20755 (12081219)	7.23603 (12081219)
3751758.5	5.67389 (12081219)	5.71742 (12081219)	5.75653 (12081219)	5.79066 (12081219)	5.81976 (12081219)
3751658.5	4.70509 (12081219)	4.74739 (12081219)	4.78495 (12081219)	4.81701 (12081219)	4.84387 (12081219)
3751558.5	3.99246 (12081219)	4.03345 (12081219)	4.06965 (12081219)	4.09881 (12081219)	4.12355 (12081219)
3751458.5	3.53208 (12122005)	3.55531 (10112602)	3.58238 (10112602)	3.59463 (10112602)	3.58571 (10112602)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN
 *** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
 INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
 L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
 L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
 L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,
 *** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***
 ** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)				
(METERS)	475568.56	475668.56	475768.56	475868.56	475968.56
3753058.5	4.89087 (12080620)	4.92061 (12081020)	4.95324 (12081020)	4.91999 (12081020)	5.22024 (08080620)
3752958.5	4.72369 (12081924)	4.96499 (08011221)	5.36644 (08080620)	5.48722 (12072020)	5.62943 (12072020)
3752858.5	5.04961 (12121823)	5.37874 (10101021)	5.56774 (12081924)	5.65193 (12072424)	5.73892 (08090719)
3752758.5	5.14747 (12081219)	5.17565 (12081219)	5.17565 (12081219)	5.21766 (12081219)	5.23427 (12081219)
3752658.5	6.23873 (12081219)	6.26661 (12081219)	6.28913 (12081219)	6.30783 (12081219)	6.32115 (12081219)
3752558.5	7.87089 (12081219)	7.89681 (12081219)	7.91548 (12081219)	7.92909 (12081219)	7.93981 (12081219)
3752458.5	10.63171 (12081219)	10.65168 (12081219)	10.66180 (12081219)	10.66572 (12081219)	10.66618 (12081219)
3752358.5	16.63300 (12081219)	16.62927 (12081219)	16.60728 (12081219)	16.57937 (12081219)	16.54707 (12081219)
3752258.5	55.15828 (11102017)	53.66265 (11102017)	52.98890 (11102017)	52.31734 (11102017)	52.61084 (11102017)
3752158.5	33.56621 (09052507)	33.87453 (09052507)	34.25734 (09052507)	34.64479 (09052507)	35.02591 (09052507)
3752058.5	13.98885 (12081219)	14.03367 (12081219)	14.08097 (12081219)	14.12589 (12081219)	14.16704 (12081219)
3751958.5	9.54617 (12081219)	9.57534 (12081219)	9.60201 (12081219)	9.62494 (12081219)	9.64337 (12081219)
3751858.5	7.26607 (12081219)	7.28622 (12081219)	7.30509 (12081219)	7.31704 (12081219)	7.32614 (12081219)
3751758.5	5.84396 (12081219)	5.86335 (12081219)	5.87785 (12081219)	5.88722 (12081219)	5.89108 (12081219)
3751658.5	4.86561 (12081219)	4.88154 (12081219)	4.89359 (12081219)	4.89730 (12081219)	4.89780 (12081219)
3751558.5	4.14316 (12081219)	4.15767 (12081219)	4.16700 (12081219)	4.17098 (12081219)	4.16926 (12081219)
3751458.5	3.58918 (12081219)	3.60189 (12081219)	3.60952 (12081219)	3.61034 (12081219)	3.60699 (12081219)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN
 *** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
 INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
 L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
 L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
 L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,
 *** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***
 ** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)				
(METERS)	476068.56	476168.56	476268.56	476368.56	476468.56
3753058.5	5.25694 (12072020)	5.27341 (12072020)	5.28043 (10071320)	5.30437 (10071320)	5.32101 (08090719)
3752958.5	5.83569 (10071320)	5.53409 (10071320)	5.57036 (08090719)	5.61548 (08090719)	5.66355 (10080219)
3752858.5	6.13048 (08090719)	6.17737 (10080219)	6.20045 (09103122)	6.24457 (10080219)	6.33144 (10093020)
3752758.5	5.25120 (12081219)	5.78279 (12072424)	6.90319 (09071624)	5.33367 (12081219)	5.39361 (12081219)

Attachment: Health Risk Analysis (2615 : PEN16-0100 Plot Plan / PEN16-0101 Variance (Brodiaea Business Center Project))

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs and time periods.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 5 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Table with 6 columns of numerical data representing concentrations for various source IDs and time periods.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 5 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Table with 6 columns of numerical data representing concentrations for various source IDs and time periods.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and impacts for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF2 ***
INCLUDING SOURCE(S): L0002500 , L0002501 , L0002502 , L0002503 , L0002504 ,
L0002505 , L0002506 , L0002507 , L0002508 , L0002509 , L0002510 , L0002511 , L0002512 ,
L0002513 , L0002514 , L0002515 , L0002516 , L0002517 , L0002518 , L0002519 , L0002520 ,
L0002521 , L0002522 , L0002523 , L0002524 , L0002525 , L0002526 , L0002527 , ... ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 5 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Large table with 6 columns of numerical data representing concentrations and impacts for various source IDs.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 5 columns: Y-COORD (METERS) and X-COORD (METERS) for various locations.

Large table with 6 columns of numerical data representing concentrations and impacts for various source IDs.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752475.4, 261.76967, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477749.97, 477799.97, 477849.97, 477899.97, 477949.97

Large table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3752975.4, 21.54031, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***

Brodiaea_HRA

INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 , L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 , L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 , L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

Table with 6 columns of coordinates and concentration values for various source IDs (e.g., 3753058.5, 3752958.5, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***

INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 , L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 , L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 , L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474568.56 474668.56 474768.56 474868.56 474968.56

Table with 6 columns of coordinates and concentration values for various source IDs (e.g., 3753058.5, 3752958.5, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***

INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 , L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 , L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 , L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

Brodiaea_HRA

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475068.56 475168.56 475268.56 475368.56 475468.56

Table with 6 columns of coordinates and 20 rows of concentration data for Brodiaea_HRA.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 475568.56 475668.56 475768.56 475868.56 475968.56

Table with 6 columns of coordinates and 20 rows of concentration data for Brodiaea_HRA.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 476068.56 476168.56 476268.56 476368.56 476468.56

Table with 6 columns of coordinates and 1 row of concentration data for Brodiaea_HRA.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and coordinates for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 476568.56, 476668.56, 476768.56, 476868.56, 476968.56.

Table with 6 columns of numerical data representing concentrations and coordinates for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793 , L0001794 , L0001795 , L0001796 , L0001797 ,
L0001798 , L0001799 , L0001800 , L0001801 , L0001802 , L0001803 , L0001804 , L0001805 ,
L0001806 , L0001807 , L0001808 , L0001809 , L0001810 , L0001811 , L0001812 , L0001813 ,
L0001814 , L0001815 , L0001816 , L0001817 , L0001818 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477068.56, 477168.56, 477268.56, 477368.56, 477468.56.

Table with 6 columns of numerical data representing concentrations and coordinates for various source groups.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and coordinates for various locations under the Brodiaea_HRA category.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts)

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSOUTH ***
INCLUDING SOURCE(S): L0001793, L0001794, L0001795, L0001796, L0001797, L0001798, L0001799, L0001800, L0001801, L0001802, L0001803, L0001804, L0001805, L0001806, L0001807, L0001808, L0001809, L0001810, L0001811, L0001812, L0001813, L0001814, L0001815, L0001816, L0001817, L0001818

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477281.21, 477381.21, 477481.21, 477581.21, 477681.21.

Large table with 6 columns of numerical data representing concentrations and coordinates for various locations under the Brodiaea_HRA category.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts)

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779, L0001780, L0001781, L0001782, L0001783, L0001784, L0001785, L0001786, L0001787, L0001788, L0001789, L0001790, L0001791, L0001792

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477499.97, 477549.97, 477599.97, 477649.97, 477699.97.

Large table with 6 columns of numerical data representing concentrations and coordinates for various locations under the Brodiaea_HRA category.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations and coordinates for Brodiaea_HRA. Includes source information like AERMED and AERMET.

*** AERMED - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 ,L0001780 ,L0001781 ,L0001782 ,L0001783 ,
L0001784 ,L0001785 ,L0001786 ,L0001787 ,L0001788 ,L0001789 ,L0001790 ,L0001791 ,
L0001792 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477749.97, 477799.97, 477849.97, 477899.97, 477949.97.

Large table with 6 columns of numerical data representing concentrations and coordinates for Brodiaea_HRA. Includes source information like AERMED and AERMET.

*** AERMED - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

Brodiaea_HRA

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

Table with 6 columns of concentration values for various Y and X coordinates. Values range from approximately 1.92822 to 2.36310.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474568.56 474668.56 474768.56 474868.56 474968.56

Table with 6 columns of concentration values for various Y and X coordinates. Values range from approximately 2.45308 to 3.03991.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Brodiaea_HRA

Y-COORD (METERS)	475068.56	X-COORD (METERS)	475168.56	475268.56	475368.56	475468.56
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3753058.5	3.27635 (12122021)	3.52809 (12122021)	3.79428 (12122021)	4.08183 (12111201)	4.54138 (12111201)
3752958.5	3.32617 (12122024)	3.47932 (10010906)	3.70934 (10010906)	3.95464 (10011507)	4.31901 (12122021)
3752858.5	3.73079 (12122024)	3.93620 (12122024)	4.15564 (12122024)	4.38934 (12122024)	4.63785 (12122024)
3752758.5	3.85227 (12122024)	4.11073 (12122024)	4.39554 (12122024)	4.71047 (12122024)	5.05877 (12122024)
3752658.5	3.65375 (12122024)	3.92248 (12122024)	4.22331 (12122024)	4.56172 (12122024)	4.94394 (12122024)
3752558.5	3.82985 (12122001)	4.08457 (12122001)	4.36885 (12122001)	4.68860 (12122001)	5.04989 (12122001)
3752458.5	3.84913 (12122001)	4.10186 (12122001)	4.38153 (12122001)	4.69314 (12122001)	5.04674 (12122001)
3752358.5	3.72132 (11012405)	3.99566 (11012405)	4.30112 (11012405)	4.64021 (11012405)	5.02558 (11012405)
3752258.5	3.83856 (11012405)	4.08573 (11012405)	4.35401 (11012405)	4.64503 (11012405)	4.96056 (11012405)
3752158.5	3.64153 (11012405)	3.82127 (11012405)	4.00836 (11012405)	4.20169 (11012405)	4.43723 (11122102)
3752058.5	3.38724 (11122102)	3.70554 (11122102)	4.05133 (11122102)	4.42432 (11122102)	4.81986 (11122102)
3751958.5	3.64521 (11122102)	3.91348 (11122102)	4.18860 (11122102)	4.46521 (11122102)	4.73578 (11122102)
3751858.5	3.63242 (11122102)	3.81114 (11122102)	3.97578 (11122102)	4.11863 (11122102)	4.40356 (08122706)
3751758.5	3.35878 (11122102)	3.51832 (08122706)	3.85406 (08122706)	4.18896 (08122706)	4.55392 (12020405)
3751658.5	3.40335 (08122706)	3.65829 (12020405)	3.94235 (12020405)	4.20201 (12020405)	4.41991 (12020405)
3751558.5	3.45194 (12020405)	3.64565 (12020405)	3.80550 (12020405)	3.91381 (12020405)	4.16278 (12122005)
3751458.5	3.32172 (12020405)	3.40063 (12020405)	3.58700 (12122005)	3.89517 (12122005)	4.15519 (12122005)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	475568.56	X-COORD (METERS)	475668.56	475768.56	475868.56	475968.56
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3753058.5	5.03731 (12111201)	5.56391 (12111201)	6.10862 (12111201)	6.65113 (12111201)	8.52527 (12111201)
3752958.5	4.72460 (12122021)	5.16247 (12122021)	5.76592 (12111201)	6.53338 (12111201)	7.37313 (12111201)
3752858.5	4.89971 (12122024)	5.17488 (12122024)	5.50895 (10010906)	6.07927 (12122021)	6.81612 (12122021)
3752758.5	5.44583 (12122024)	5.87665 (12122024)	6.35713 (12122024)	6.89377 (12122024)	7.49329 (12122024)
3752658.5	5.37869 (12122024)	5.87644 (12122024)	6.45031 (12122024)	7.11683 (12122024)	7.89502 (12122024)
3752558.5	5.46114 (12122001)	5.93257 (12122001)	6.47744 (12122001)	7.11303 (12122001)	7.86228 (12122001)
3752458.5	5.44634 (12122001)	5.90173 (12122001)	6.42491 (12122001)	7.03091 (12122001)	7.73936 (12122001)
3752358.5	5.45742 (11012405)	5.94550 (11012405)	6.50089 (11012405)	7.13419 (11012405)	7.86085 (11012405)
3752258.5	5.30470 (11012405)	5.68034 (11012405)	6.08381 (11012405)	6.51716 (11012405)	7.08506 (11122102)
3752158.5	4.94324 (11122102)	5.50734 (11122102)	6.13148 (11122102)	6.81424 (11122102)	7.54834 (11122102)
3752058.5	5.23921 (11122102)	5.67274 (11122102)	6.10880 (11122102)	6.52974 (11122102)	6.91016 (11122102)
3751958.5	4.99008 (11122102)	5.21467 (11122102)	5.71815 (08122706)	6.37228 (08122706)	7.10905 (12020405)
3751858.5	4.86298 (08122706)	5.33890 (12020405)	5.84175 (12020405)	6.28626 (12020405)	6.62787 (12020405)
3751758.5	4.90988 (12020405)	5.21675 (12020405)	5.44320 (12020405)	5.91218 (12122005)	6.50517 (12122005)
3751658.5	4.57550 (12020405)	4.91236 (12122005)	5.37950 (12122005)	5.74744 (10112602)	6.17998 (10112602)
3751558.5	4.53780 (12122005)	4.84410 (12122005)	5.17413 (10112602)	5.42190 (10112602)	5.48138 (10112602)
3751458.5	4.39704 (10112602)	4.64128 (10112602)	4.75936 (10112602)	4.71104 (10112602)	4.83376 (10031102)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	476068.56	X-COORD (METERS)	476168.56	476268.56	476368.56	476468.56
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3753058.5	9.37782 (12121823)	10.61950 (12121823)	11.65947 (10112601)	13.14650 (12030801)	14.66083 (12030801)
3752958.5	10.02089 (12111201)	9.17399 (12111201)	10.02836 (12111201)	11.44927 (12121823)	13.10997 (12121823)
3752858.5	7.66711 (12111201)	8.97373 (12111201)	10.47755 (12111201)	12.14455 (12111201)	13.90867 (12111201)
3752758.5	8.16308 (12122024)	8.90711 (12122024)	9.72957 (12122024)	11.17307 (12122021)	13.48822 (12111201)
3752658.5	8.81574 (12122024)	9.91465 (12122024)	11.24339 (12122024)	12.86239 (12122024)	14.87622 (12122024)

Brodiaea_HRA					
3752558.5	8.75618 (12122001)	9.83618 (12122001)	11.16752 (12122001)	12.83486 (12122001)	14.97472 (12122001)
3752458.5	8.57611 (12122001)	9.58943 (11012405)	10.99737 (11012405)	12.75729 (11012405)	14.98571 (11012405)
3752358.5	8.69764 (11012405)	9.67117 (11012405)	10.78578 (11012405)	12.08691 (11012405)	13.91403 (11122102)
3752258.5	8.13810 (11122102)	9.35407 (11122102)	10.74192 (11122102)	12.28996 (11122102)	13.93197 (11122102)
3752158.5	8.31700 (11122102)	9.08863 (11122102)	9.86041 (08122706)	11.59165 (12020405)	13.51960 (12020405)
3752058.5	7.81271 (08122706)	8.89851 (12020405)	9.99755 (12020405)	10.91656 (12020405)	12.50860 (12122005)
3751958.5	7.79044 (12020405)	8.33292 (12020405)	9.33154 (12122005)	10.41074 (10112602)	11.46970 (10112602)
3751858.5	7.29820 (12122005)	8.07485 (12122005)	8.84556 (10112602)	9.31959 (10112602)	9.38877 (10031102)
3751758.5	7.04368 (10112602)	7.52055 (10112602)	7.63715 (10112602)	7.76848 (10031102)	8.62696 (11120720)
3751658.5	6.40235 (10112602)	6.35429 (10031102)	6.54296 (10031102)	7.35389 (11120720)	7.96623 (11120720)
3751558.5	5.52129 (10031102)	5.69577 (11120319)	6.36412 (11120720)	6.82172 (11120720)	7.39434 (10112905)
3751458.5	5.05964 (11120319)	5.58609 (11120720)	5.92848 (11120720)	6.29175 (10112905)	7.12148 (10112905)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	476568.56	476668.56	476768.56	476868.56

3753058.5	16.81474 (11011206)	19.02209 (12111306)	20.17975 (12111306)	31.65339 (12110208)	32.69175 (12110208)
3752958.5	15.10473 (12030801)	17.35229 (12030801)	20.55937 (11011206)	26.10477 (12110208)	46.93634 (12110208)
3752858.5	15.90206 (12121823)	19.12058 (12121823)	23.13438 (12030801)	28.35435 (11011206)	40.06273 (12110208)
3752758.5	16.69386 (12111201)	20.61338 (12111201)	25.06516 (12111201)	32.00374 (12121823)	42.17679 (12030801)
3752658.5	17.39618 (12122024)	20.61695 (12122024)	24.77592 (12122024)	33.43943 (12111201)	48.24933 (12111201)
3752558.5	17.79803 (12122001)	21.67379 (12122001)	27.23150 (12122001)	35.73663 (12122001)	50.33651 (12122024)
3752458.5	17.96440 (12011516)	22.21016 (12011516)	27.98159 (12011516)	36.01976 (12011516)	48.42107 (11122102)
3752358.5	17.01208 (11122102)	20.93084 (11122102)	25.65403 (11122102)	32.72838 (12020405)	43.60297 (12020405)
3752258.5	15.96707 (08122706)	19.71448 (12020405)	23.48562 (12020405)	29.25267 (10112602)	34.42428 (10112602)
3752158.5	15.21405 (12020405)	17.99103 (12122005)	20.97163 (10112602)	22.01231 (10031102)	26.73208 (11120720)
3752058.5	14.26285 (10112602)	15.51403 (10112602)	16.15290 (11120319)	19.03926 (11120720)	23.21307 (10112905)
3751958.5	11.77761 (10112602)	12.70966 (11120319)	14.50974 (11120720)	17.28393 (10112905)	18.80586 (08122623)
3751858.5	10.34168 (11120319)	11.55218 (11120720)	13.38825 (10112905)	14.60268 (10112820)	15.88497 (08122623)
3751758.5	9.47130 (11120720)	10.74130 (10112905)	11.73175 (10112905)	12.65752 (08122623)	14.10678 (10112822)
3751658.5	8.82751 (10112905)	9.80824 (10112905)	10.17600 (10112820)	10.92856 (08122623)	12.53917 (10112822)
3751558.5	8.31118 (10112905)	8.68714 (10112820)	9.29477 (08122623)	10.00167 (10112822)	10.85020 (10112822)
3751458.5	7.44235 (10112820)	7.83515 (08122623)	8.16288 (08122623)	9.24891 (10112822)	9.26812 (10112822)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
 INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
 L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
 L0001792 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	477068.56	477168.56	477268.56	477368.56

3753058.5	27.23211 (11122404)	25.95436 (09013007)	36.33189 (12011305)	37.69102 (12031717)	28.99467 (12123104)
3752958.5	42.50579 (12110208)	37.75070 (11122404)	42.32323 (12011305)	51.63236 (12031717)	36.01260 (12123104)
3752858.5	75.71962 (12110208)	55.34797 (10022710)	61.93886 (12011305)	76.91536 (12031717)	58.01163 (09101217)
3752758.5	68.17064 (12110208)	142.15071 (12110208)	98.53216 (12011305)	125.86749 (12031717)	100.63767 (09101217)
3752658.5	71.67537 (12121823)	141.61992 (12110208)	400.56616 (12110208)	335.29954 (09101217)	161.23963 (11102117)
3752558.5	81.08817 (12011516)	163.93628 (12011516)	599.54262 (12121315)	1306.27845 (12071319)	315.97815 (12071319)
3752458.5	74.41610 (11122102)	132.80553 (09120715)	306.93303 (09120715)	622.59938 (11071407)	305.64192 (11111816)
3752358.5	62.66303 (09120715)	81.93375 (10112905)	174.85832 (10080807)	229.09442 (11060807)	140.13979 (11071407)
3752258.5	41.75918 (10112905)	55.30764 (08122623)	92.25165 (10080807)	120.50300 (11060807)	62.78841 (11060807)
3752158.5	33.21040 (10112820)	41.78788 (10080807)	49.90462 (10080807)	74.42545 (11060807)	51.34662 (11060807)
3752058.5	26.06332 (08122623)	36.38395 (10080807)	33.25886 (11060807)	50.38109 (11060807)	40.72858 (11060807)
3751958.5	21.92024 (10112822)	28.49229 (10080807)	25.07569 (10112824)	36.21216 (11060807)	32.34526 (11060807)
3751858.5	18.35951 (10112822)	21.25388 (10080807)	19.72909 (10112824)	27.14794 (11060807)	25.94084 (11060807)
3751758.5	15.92808 (10080807)	15.51905 (10080807)	16.04133 (10112824)	21.00230 (11060807)	21.05626 (11060807)

Brodiaea_HRA

3751658.5 | 13.87392 (10080807) 13.42345 (10112824) 13.28296 (10112824) 16.65107 (11060807) 17.29618 (11060807)
3751558.5 | 11.58283 (10080807) 11.72179 (10112824) 11.20082 (10112824) 13.46196 (11060807) 14.36597 (11060807)
3751458.5 | 9.40792 (10080807) 10.30882 (10112824) 9.61890 (10112824) 11.05858 (11060807) 12.05573 (11060807)
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONWEST ***
INCLUDING SOURCE(S): L0001779 , L0001780 , L0001781 , L0001782 , L0001783 ,
L0001784 , L0001785 , L0001786 , L0001787 , L0001788 , L0001789 , L0001790 , L0001791 ,
L0001792 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 6 columns of coordinates and values. Rows include data points like 3755487.1 | 17.13128 (10082904) 17.14178 (08103023) 17.12927 (09063002) 16.94625 (10081623) 16.96627 (09072606)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477499.97 477549.97 477599.97 477649.97 477699.97

Table with 6 columns of coordinates and values. Rows include data points like 3752975.4 | 674831.05393 (12071022) 628790.58923 (10071504) 579997.34309 (09071423) 531515.65718 (10081003) 496861.08604 (12090904)

Brodiaea_HRA

3752125.4 | 618067.31242 (12091921) 581705.94321 (12101720) 544313.66114 (12082824) 505107.05983 (09071924) 470848.11154 (12081301)
3752075.4 | 549484.61337 (09080424) 519411.48600 (12080601) 4922104.59350 (12081406) 459756.63790 (10082324) 431396.16181 (09072305)
3752025.4 | 488440.77186 (12073101) 470733.38339 (12091921) 450400.60273 (10092820) 424253.48833 (12081902) 399053.57757 (12092401)
3751975.4 | 440130.05446 (12091104) 426669.97271 (09080424) 407383.68589 (08090402) 392314.41923 (12101720) 372797.34044 (12082824)
3751925.4 | 403550.03707 (12091521) 389229.95511 (10071705) 375109.54373 (12091921) 362429.22196 (10092820) 343296.30611 (12081406)
3751875.4 | 370400.48028 (12091521) 356185.81186 (12091104) 345210.94479 (12090523) 331554.73187 (08090402) 319131.82051 (12090623)
3751825.4 | 336554.44257 (12091324) 325760.67306 (12090103) 318967.76330 (10071705) 308564.64036 (12091921) 298610.35843 (10092820)
3751775.4 | 309994.88955 (12091324) 304862.66767 (12091521) 294230.85144 (12073101) 287592.60258 (12090523) 277147.26493 (08090402)
3751725.4 | 286582.22285 (12070924) 284776.76300 (12091521) 274697.61204 (12091104) 267829.18613 (09080424) 260046.98654 (12091921)
3751675.4 | 266537.57975 (12071323) 261653.09141 (10081705) 254434.22463 (09090524) 249871.86999 (10071705) 244321.77672 (12090523)
3751625.4 | 250552.25458 (12090522) 245646.39730 (12091324) 241433.78677 (12091521) 234529.10339 (12091104) 229968.34709 (09080424)
3751575.4 | 233406.96275 (12090522) 229360.60256 (12070924) 228250.37990 (12091521) 219826.65798 (12091104) 216354.00067 (10071705)
3751525.4 | 219532.41361 (12092721) 214861.76881 (12070924) 211905.03493 (10081705) 207199.46249 (09090524) 203133.29403 (12073101)
3751475.4 | 205869.38792 (12090503) 202863.45295 (11073123) 200460.43090 (12091324) 197932.80647 (12091521) 193158.75213 (12091104)
3751425.4 | 194437.62743 (12090503) 192747.27905 (12090522) 189273.12565 (12091324) 188719.51936 (12091521) 181763.53105 (12090103)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477749.97 477799.97 477849.97 477899.97 477949.97

3752975.4 | 453128.71903 (10092001) 417730.34353 (10061405) 386339.16760 (11072801) 362162.11309 (09091724) 335775.25560 (09071806)
3752925.4 | 488692.69555 (12070124) 446881.11336 (12041921) 409827.43269 (09091724) 379114.91649 (09072924) 350327.32976 (12062622)
3752875.4 | 528822.87420 (09091724) 478272.37067 (09071806) 434552.00227 (12062622) 399712.82487 (10092703) 365722.84174 (09071703)
3752825.4 | 562608.91616 (10080123) 508275.18955 (10092703) 457207.14460 (10091322) 414552.05182 (09091101) 380777.09121 (10091321)
3752775.4 | 597788.12359 (10091322) 531441.93179 (10091321) 478795.56325 (11081822) 430336.67621 (12082622) 394551.92327 (12091023)
3752725.4 | 628160.75480 (12082622) 559004.79309 (12091023) 496250.78943 (09090402) 450139.57353 (12081422) 403988.05916 (12081422)
3752675.4 | 653287.19376 (12081422) 569396.36319 (11081106) 504741.30082 (11071104) 453834.22855 (12110619) 412081.45621 (12110619)
3752625.4 | 677364.42902 (12090221) 588191.17259 (08082603) 519801.83525 (09090424) 465830.08930 (09090424) 419288.93585 (09090424)
3752575.4 | 684029.11634 (10092805) 595406.77476 (10092805) 525039.52859 (10092805) 467868.81218 (10092805) 420428.22726 (10092805)
3752525.4 | 677893.96716 (09042023) 587687.41012 (08091902) 517012.26993 (12060623) 461657.72820 (12060623) 415127.33165 (12060623)
3752475.4 | 665430.32330 (10082603) 586100.90147 (12090421) 516675.21604 (12090421) 460585.61657 (12082723) 416744.70541 (12071224)
3752425.4 | 638976.22231 (10071904) 559446.85917 (08090205) 506794.94522 (10092724) 451945.45101 (10081521) 409855.57989 (10082603)
3752375.4 | 605813.63652 (11083122) 540084.10085 (10081702) 485805.91177 (12091003) 435844.47366 (11082222) 394721.73787 (08090205)
3752325.4 | 569290.32564 (10072306) 518790.26889 (10071503) 463310.98961 (11083122) 419582.65927 (09101820) 384413.82513 (10081702)
3752275.4 | 538918.17546 (10071602) 487273.23651 (09090503) 437743.05825 (11091004) 406337.21496 (10071503) 370315.03096 (10081221)
3752225.4 | 507972.86273 (12092221) 461653.07793 (12091523) 425145.57599 (10071602) 385165.01456 (09072404) 351788.39980 (11091004)
3752175.4 | 470399.91817 (10081803) 430818.60058 (08093003) 398187.00799 (09072801) 368955.25656 (12091523) 343164.29383 (10071602)
3752125.4 | 434611.41825 (09071702) 404635.13876 (12092801) 376885.43637 (09071903) 351707.18255 (10092221) 326252.91361 (12091523)
3752075.4 | 406884.86155 (12081301) 378031.52543 (09071702) 354934.16222 (12092821) 330738.77946 (09071903) 311908.48444 (12092221)
3752025.4 | 374683.76205 (09080302) 356486.62022 (12081301) 333151.38903 (09071702) 314022.42211 (12092821) 293918.46155 (10071405)
3751975.4 | 350371.99034 (09071924) 329971.93287 (09080302) 315726.20445 (12081301) 296537.27292 (09071702) 279825.10644 (12092821)
3751925.4 | 327508.29862 (10082324) 312639.35460 (09071924) 293317.37160 (11062621) 282468.88487 (12081301) 266524.61989 (09071702)
3751875.4 | 305880.95919 (12081902) 289655.82840 (10082324) 279427.39705 (09071924) 264293.30757 (11062621) 254766.80984 (12081301)
3751825.4 | 287675.07004 (12101720) 276395.25620 (12082824) 261276.62592 (12092401) 250611.26457 (09072305) 239519.53975 (11062621)
3751775.4 | 269096.14724 (10092820) 257951.14869 (12081406) 248521.65298 (12082824) 238024.09738 (12092401) 227937.88845 (09072305)
3751725.4 | 251244.27218 (12080601) 244568.77689 (12101720) 234919.25808 (12081902) 226007.36506 (10082324) 217403.74594 (09071924)
3751675.4 | 236101.22929 (08090402) 231574.82930 (10092820) 222911.94323 (12101720) 215989.43550 (12082824) 205110.50237 (11011721)
3751625.4 | 223329.54744 (12091921) 216448.96324 (12080601) 210661.68111 (12090623) 203619.67238 (12081406) 198347.16069 (12082824)
3751575.4 | 211112.62005 (12090523) 204642.91634 (08090402) 201479.77047 (10092820) 195341.52018 (12101720) 188226.81003 (12081902)
3751525.4 | 199891.80282 (09080424) 194674.38380 (12091921) 189023.58124 (12080601) 184873.26652 (10092820) 179373.81417 (12101720)
3751475.4 | 189304.70373 (10071705) 184840.07207 (12090523) 179489.56191 (08090402) 176947.73563 (10092820) 171850.65050 (12101720)
3751425.4 | 178511.78197 (12073101) 175774.29121 (09080424) 171871.45917 (12091921) 167074.23450 (08090402) 165046.25143 (10092820)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

Brodiaea_HRA

Table with 8 columns of numerical data representing coordinates and concentrations for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 474568.56, 474668.56, 474768.56, 474868.56, 474968.56.

Large table with 8 columns of numerical data representing coordinates and concentrations for various source groups.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 475068.56, 475168.56, 475268.56, 475368.56, 475468.56.

Large table with 8 columns of numerical data representing coordinates and concentrations for various source groups.

Brodiaea_HRA

3751758.5 | 74472.71246 (11071724) 78826.14399 (11091224) 83934.87374 (11080124) 88960.03611 (08093002) 94724.59792 (09071706)
3751658.5 | 73187.82198 (11080124) 77194.50859 (08093002) 81657.33836 (09071706) 86406.16472 (12081206) 92060.96660 (12092224)
3751558.5 | 71225.79987 (09071706) 75486.84582 (12081206) 79783.80947 (12092224) 84296.33208 (09092424) 89348.14505 (11090524)
3751458.5 | 70079.93176 (12092224) 73621.49807 (09092424) 77737.93377 (11090524) 82075.03332 (11072522) 86137.05313 (12081804)
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 475568.56, 475668.56, 475768.56, 475868.56, 475968.56.

3753058.5 | 109223.14748 (12070903) 118933.36681 (11090601) 128579.81595 (12092302) 139369.04872 (08102823) 152859.73876 (09082902)
3752958.5 | 112015.08806 (12110521) 120778.34719 (12090906) 131241.49834 (11070123) 143596.87189 (11070123) 157473.59217 (11090601)
3752858.5 | 115139.15020 (12091422) 125024.25019 (12091422) 136101.48554 (10092723) 148019.46256 (10092723) 162097.83602 (10100220)
3752758.5 | 115259.36065 (12081903) 125831.85854 (12081124) 137329.56480 (12081124) 149448.75468 (12081124) 164976.18540 (12092301)
3752658.5 | 116528.36469 (12080901) 126454.86209 (12080901) 137726.86835 (12080901) 151278.48988 (11010321) 167499.67394 (11010321)
3752558.5 | 115856.40974 (12100123) 125906.76737 (12100123) 137555.27195 (12100123) 151188.78335 (12100123) 167326.18544 (12100123)
3752458.5 | 115536.36133 (11071824) 125560.77754 (11071824) 136960.98038 (11071824) 150078.99381 (12090902) 166702.01313 (12090902)
3752358.5 | 115286.24439 (08092822) 124558.72660 (08092822) 136247.64621 (12081404) 148687.52377 (12081404) 164039.54684 (11082502)
3752258.5 | 113978.85346 (11090702) 122156.28387 (11082302) 132822.97046 (12072224) 147000.46493 (11082623) 162475.10397 (11082623)
3752158.5 | 112440.46042 (11082623) 120307.13175 (11090806) 130795.28837 (11082223) 143237.00315 (11090621) 158465.43684 (11090621)
3752058.5 | 110718.40285 (11090621) 118891.76292 (11090621) 128660.06412 (12081123) 137969.99074 (12081123) 150519.36447 (11091224)
3751958.5 | 106994.43832 (12081123) 114174.07945 (11091224) 124017.89352 (11080124) 133657.77763 (08093002) 145425.92362 (09092503)
3751858.5 | 103479.46598 (08093002) 111447.04102 (09071706) 119411.94877 (09092503) 129450.78670 (12092224) 139423.15446 (11090524)
3751758.5 | 100387.21013 (09092503) 108017.37228 (12092224) 115591.28538 (09092424) 124707.66737 (11072522) 133807.63224 (12110520)
3751658.5 | 97896.78810 (09092424) 104024.52150 (11072522) 111704.97899 (12081804) 119252.05944 (11082704) 128142.95296 (12092022)
3751558.5 | 94536.03350 (12081804) 100577.99278 (12110520) 106176.39064 (12072103) 113657.92704 (11090703) 120649.77895 (11082604)
3751458.5 | 91530.65779 (11082704) 96775.51022 (12092022) 102387.56189 (11090703) 107923.71398 (11092223) 114669.22868 (10090403)
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 476068.56, 476168.56, 476268.56, 476368.56, 476468.56.

3753058.5 | 168434.61705 (12100124) 185723.14337 (12082002) 207431.21657 (12091323) 230588.29511 (10082322) 262122.48936 (12081023)
3752958.5 | 174076.19074 (12092302) 192836.95843 (09082902) 215241.67687 (09082506) 244690.74297 (11080205) 280510.48791 (12091323)
3752858.5 | 178615.32678 (12110521) 200304.80355 (11070123) 224355.12584 (12070903) 256911.71351 (12092302) 297520.76121 (09082902)
3752758.5 | 183880.48464 (11100220) 208072.95497 (12091422) 235597.97422 (10092723) 268648.50259 (10092723) 310580.28043 (12110521)
3752658.5 | 186597.09828 (11101321) 208690.34712 (11070503) 237911.15073 (11070503) 273231.52855 (12081903) 320335.57267 (12081124)
3752558.5 | 186677.55780 (12100123) 210228.65874 (12100123) 239425.68419 (12100123) 276273.28842 (12100123) 324144.06903 (12100123)
3752458.5 | 185584.73254 (12090902) 207658.84884 (12083105) 236107.10934 (12083105) 273115.26720 (08092822) 318967.76454 (12081404)
3752358.5 | 183423.20371 (11090702) 203737.03720 (11090702) 230335.38595 (12072224) 268179.98811 (11082623) 306650.34264 (11082223)
3752258.5 | 177458.35516 (11090806) 198209.40437 (12082006) 227137.99169 (11090621) 256889.10497 (12081123) 291139.79838 (11091224)
3752158.5 | 174162.05121 (12081123) 190259.65152 (11071724) 214372.65101 (11080124) 241378.31200 (09071706) 275369.86689 (12092224)
3752058.5 | 166035.63991 (08093002) 182530.80946 (09092503) 203998.72333 (12092224) 227618.86182 (11090524) 255815.00712 (12110520)
3751958.5 | 159523.91056 (12092224) 174892.95524 (11090524) 192985.91289 (12081804) 211553.50316 (12072103) 236578.12806 (11082604)
3751858.5 | 152052.55542 (11072522) 165404.65099 (11082704) 181753.63494 (12092022) 196974.69846 (11092223) 217385.91593 (11090622)
3751758.5 | 143609.24354 (12072103) 156571.90233 (11090703) 168199.01560 (12100204) 185318.61815 (11090622) 198249.96968 (11092301)
3751658.5 | 137191.90163 (11082604) 146102.86713 (12100204) 160015.64640 (11090622) 169291.23405 (11092301) 182749.70189 (12050821)
3751558.5 | 128989.32335 (10090403) 139654.73349 (11090622) 146904.60092 (11092301) 157689.64755 (12050821) 170191.14662 (09082923)
3751458.5 | 123054.97307 (11090622) 129214.59716 (11092301) 137572.95789 (12050821) 147680.48548 (09082923) 156621.26944 (12081703)
*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

Brodiaea_HRA

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 476568.56 476668.56 476768.56 476868.56 476968.56

Table with 5 columns of coordinates and multiple rows of numerical data representing concentration measurements.

AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477068.56 477168.56 477268.56 477368.56 477468.56

Table with 5 columns of coordinates and multiple rows of numerical data representing concentration measurements.

AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PARKINGL ***
INCLUDING SOURCE(S): PARKINGLOT ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 477281.21 477381.21 477481.21 477581.21 477681.21

Table with 5 columns of coordinates and multiple rows of numerical data representing concentration measurements.

Brodiaea_HRA

Table with 10 columns of numerical data representing HRA concentrations for various sources and locations.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477499.97, 477549.97, 477599.97, 477649.97, 477699.97.

Large table with 6 columns of numerical data representing concentration values for various source groups and locations.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

Brodiaea_HRA

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	477749.97	477799.97	477849.97	477899.97	477949.97
3752975.4	23.25677 (11020503)	20.28734 (11020802)	53.24280 (09110319)	49.07168 (08080720)	48.56467 (12080620)
3752925.4	23.90446 (11020503)	22.53788 (12022801)	21.96414 (12022801)	20.28375 (12022801)	48.19203 (12080620)
3752875.4	26.68218 (11020802)	25.86431 (12022801)	23.58131 (12022801)	20.51074 (12022801)	17.70208 (10041222)
3752825.4	31.08630 (12022801)	27.95348 (12022801)	23.78266 (12022801)	20.70583 (10041222)	20.12731 (11021816)
3752775.4	33.88860 (12022801)	28.00517 (10050607)	25.82507 (11021816)	25.59150 (11021816)	23.98703 (11021816)
3752725.4	36.25166 (10050607)	35.09259 (11102117)	32.51971 (11021816)	29.15131 (11021816)	24.99581 (11021816)
3752675.4	48.71221 (11102117)	42.08708 (11102117)	34.58426 (11102117)	27.62223 (11021816)	22.95622 (10071419)
3752625.4	53.27997 (11102117)	40.41359 (11102117)	31.78128 (10071419)	28.54180 (11020304)	25.91743 (11020304)
3752575.4	47.52440 (11020304)	41.06816 (11020304)	35.51486 (11020304)	31.45733 (12071319)	28.91388 (12071319)
3752525.4	69.90880 (12071319)	59.41702 (12071319)	51.25645 (12071319)	44.23697 (12071319)	38.53563 (11071319)
3752475.4	83.62097 (12071319)	67.50667 (12071319)	55.79025 (12071319)	47.85303 (12071319)	41.20354 (12071319)
3752425.4	82.38285 (11071307)	66.33903 (11102017)	54.70192 (11102017)	45.86245 (11102017)	38.96847 (11102017)
3752375.4	84.46841 (11071307)	70.60506 (11071307)	59.26624 (11071307)	50.00365 (11071307)	42.57581 (11071307)
3752325.4	76.53667 (10020516)	62.31568 (10020516)	50.18338 (10020516)	43.79051 (11071307)	39.52786 (11071307)
3752275.4	72.39215 (10012616)	56.24575 (10020516)	50.11824 (10020516)	43.55028 (10020516)	37.23082 (10020516)
3752225.4	68.34531 (11111816)	58.37673 (11111816)	48.25275 (10012616)	38.65909 (10012616)	35.17805 (10020516)
3752175.4	57.82898 (11071407)	50.92254 (11111816)	47.11803 (11111816)	40.31764 (10012616)	34.59069 (10012616)
3752125.4	53.35553 (11071407)	46.57223 (11071407)	38.21721 (11111816)	37.61047 (11111816)	34.25943 (11111816)
3752075.4	41.56005 (11071407)	42.38463 (11071407)	38.21977 (11071407)	31.28885 (11071407)	29.90513 (11111816)
3752025.4	29.34217 (11091107)	33.47768 (11071407)	34.49664 (11071407)	31.89657 (11071407)	27.01737 (11071407)
3751975.4	25.44749 (10020924)	24.46108 (11091107)	27.53452 (11071407)	28.60786 (11071407)	26.98959 (11071407)
3751925.4	22.72015 (10020924)	21.74197 (10020924)	20.72819 (11091107)	23.05061 (11071407)	24.10600 (11071407)
3751875.4	19.65756 (10020924)	19.90135 (10020924)	18.79889 (10020924)	17.79812 (11091107)	19.56635 (11071407)
3751825.4	16.97541 (10043002)	17.62157 (10020924)	17.51258 (10020924)	16.42411 (10020924)	15.45482 (11091107)
3751775.4	15.44092 (11102120)	15.29386 (10020924)	15.87563 (10020924)	15.55476 (10020924)	14.48038 (10020924)
3751725.4	14.28397 (11102120)	13.81430 (10043002)	14.08475 (10020924)	14.34788 (10020924)	13.89299 (10020924)
3751675.4	13.39606 (09051722)	12.71861 (11102120)	12.45133 (10043002)	12.96345 (10020924)	13.00916 (10020924)
3751625.4	12.58856 (09051722)	11.86234 (11102120)	11.48820 (10043002)	11.49036 (10020924)	11.93124 (10020924)
3751575.4	11.71649 (09051722)	11.21970 (09051722)	10.73164 (11102120)	10.51695 (10043002)	10.73862 (10020924)
3751525.4	10.82774 (09051722)	10.63220 (09051722)	10.07020 (11102120)	9.75260 (10043002)	9.61319 (10043002)
3751475.4	9.97324 (09051722)	10.00848 (09051722)	9.55131 (09051722)	9.20373 (11102120)	9.05287 (10043002)
3751425.4	9.15079 (09051722)	9.36967 (09051722)	9.14168 (09051722)	8.70162 (11102120)	8.42628 (10043002)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	474068.56	474168.56	474268.56	474368.56	474468.56
3753058.5	1.88815 (12122024)	1.97314 (10010906)	2.06406 (10010906)	2.15869 (10010906)	2.25650 (10010906)
3752958.5	2.09474 (12122024)	2.16377 (12122024)	2.23449 (12122024)	2.30640 (12122024)	2.37970 (12122024)
3752858.5	2.21334 (12122024)	2.30471 (12122024)	2.39996 (12122024)	2.49967 (12122024)	2.60438 (12122024)
3752758.5	2.22501 (12122024)	2.33031 (12122024)	2.44141 (12122024)	2.56055 (12122024)	2.68711 (12122024)
3752658.5	2.12761 (12122024)	2.23546 (12122024)	2.35130 (12122024)	2.47563 (12122024)	2.61118 (12122024)
3752558.5	2.11420 (11110904)	2.20849 (11110904)	2.30905 (11110904)	2.41812 (11110904)	2.53626 (11110904)
3752458.5	2.23200 (12122001)	2.33349 (12122001)	2.44199 (12122001)	2.55961 (12122001)	2.68688 (12122001)
3752358.5	2.23924 (12122001)	2.33913 (12122001)	2.44652 (12122001)	2.56222 (12122001)	2.68659 (12122001)
3752258.5	2.13513 (12122001)	2.22286 (12122001)	2.31807 (12122001)	2.41952 (12122001)	2.52765 (12122001)
3752158.5	2.17467 (11012405)	2.28323 (11012405)	2.40013 (11012405)	2.52630 (11012405)	2.66039 (11012405)
3752058.5	2.22781 (11012405)	2.32645 (11012405)	2.43068 (11012405)	2.54295 (11012405)	2.65944 (11012405)
3751958.5	2.17114 (11012405)	2.24986 (11012405)	2.33261 (11012405)	2.41797 (11012405)	2.50500 (11012405)
3751858.5	2.01417 (11012405)	2.06857 (11012405)	2.12269 (11012405)	2.17605 (11012405)	2.26186 (11122102)
3751758.5	1.89432 (11122102)	2.02689 (11122102)	2.16803 (11122102)	2.31734 (11122102)	2.47454 (11122102)
3751658.5	2.05502 (11122102)	2.17654 (11122102)	2.30230 (11122102)	2.43105 (11122102)	2.56159 (11122102)
3751558.5	2.12842 (11122102)	2.22721 (11122102)	2.32525 (11122102)	2.42002 (11122102)	2.51094 (11122102)
3751458.5	2.10622 (11122102)	2.17404 (11122102)	2.23655 (11122102)	2.29109 (11122102)	2.33607 (11122102)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,

Brodiaea_HRA

L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	474568.56	474668.56	474768.56	474868.56	474968.56

3753058.5	2.35887 (10011507)	2.48920 (10011507)	2.65864 (12122021)	2.83739 (12122021)	3.02528 (12122021)
3752958.5	2.45383 (12122024)	2.52837 (12122024)	2.65330 (10010906)	2.79892 (10010906)	2.95244 (10010906)
3752858.5	2.71422 (12122024)	2.82931 (12122024)	2.94983 (12122024)	3.07596 (12122024)	3.20729 (12122024)
3752758.5	2.82370 (12122024)	2.96950 (12122024)	3.12627 (12122024)	3.29457 (12122024)	3.47585 (12122024)
3752658.5	2.75774 (12122024)	2.91675 (12122024)	3.09046 (12122024)	3.28008 (12122024)	3.48743 (12122024)
3752558.5	2.66399 (11110904)	2.80286 (11110904)	2.95388 (11110904)	3.12016 (11110904)	3.30209 (11110904)
3752458.5	2.82474 (12122001)	2.97520 (12122001)	3.13937 (12122001)	3.31976 (12122001)	3.51835 (12122001)
3752358.5	2.82200 (12122001)	2.96858 (12122001)	3.12836 (12122001)	3.30307 (12122001)	3.49382 (12122001)
3752258.5	2.65497 (11012405)	2.81690 (11012405)	2.99441 (11012405)	3.18852 (11012405)	3.40081 (11012405)
3752158.5	2.80475 (11012405)	2.96021 (11012405)	3.12781 (11012405)	3.30895 (11012405)	3.50401 (11012405)
3752058.5	2.78180 (11012405)	2.91139 (11012405)	3.04783 (11012405)	3.19120 (11012405)	3.34146 (11012405)
3751958.5	2.59333 (11012405)	2.68346 (11012405)	2.77408 (11012405)	2.86652 (11012405)	3.01964 (11122102)
3751858.5	2.44130 (11122102)	2.63347 (11122102)	2.83996 (11122102)	3.06029 (11122102)	3.29241 (11122102)
3751758.5	2.63829 (11122102)	2.80916 (11122102)	2.98503 (11122102)	3.16393 (11122102)	3.34159 (11122102)
3751658.5	2.69154 (11122102)	2.81926 (11122102)	2.94477 (11122102)	3.06101 (11122102)	3.16629 (11122102)
3751558.5	2.59529 (11122102)	2.66951 (11122102)	2.73280 (11122102)	2.79847 (08122706)	3.04321 (08122706)
3751458.5	2.37051 (11122102)	2.54799 (08122706)	2.74554 (08122706)	2.93848 (08122706)	3.13522 (12020405)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	475068.56	475168.56	475268.56	475368.56	475468.56

3753058.5	3.22005 (12122021)	3.46352 (12111201)	3.80659 (12111201)	4.17031 (12111201)	4.55137 (12111201)
3752958.5	3.12551 (10011507)	3.36732 (12122021)	3.63642 (12122021)	3.92134 (12122021)	4.22197 (12122021)
3752858.5	3.34278 (12122024)	3.48266 (12122024)	3.62590 (12122024)	3.84417 (10010906)	4.11001 (10010906)
3752758.5	3.67013 (12122024)	3.87968 (12122024)	4.10508 (12122024)	4.34769 (12122024)	4.60733 (12122024)
3752658.5	3.71541 (12122024)	3.96643 (12122024)	4.24375 (12122024)	4.55109 (12122024)	4.89201 (12122024)
3752558.5	3.50249 (11110904)	3.72414 (11110904)	3.99347 (12122024)	4.30964 (12122024)	4.66653 (12122024)
3752458.5	3.73708 (12122001)	3.98129 (12122001)	4.25295 (12122001)	4.55777 (12122001)	4.90123 (12122001)
3752358.5	3.70582 (12122001)	3.93914 (12122001)	4.19814 (12122001)	4.48545 (12122001)	4.81070 (12122001)
3752258.5	3.63553 (11012405)	3.89558 (11012405)	4.18348 (11012405)	4.50316 (11012405)	4.85924 (11012405)
3752158.5	3.71515 (11012405)	3.94346 (11012405)	4.19038 (11012405)	4.45732 (11012405)	4.74564 (11012405)
3752058.5	3.49839 (11012405)	3.66152 (11012405)	3.83007 (11012405)	4.00275 (11012405)	4.29448 (11122102)
3751958.5	3.29560 (11122102)	3.59706 (11122102)	3.92327 (11122102)	4.27365 (11122102)	4.64623 (11122102)
3751858.5	3.53633 (11122102)	3.78932 (11122102)	4.04785 (11122102)	4.30685 (11122102)	4.55759 (11122102)
3751758.5	3.51738 (11122102)	3.68528 (11122102)	3.83946 (11122102)	3.97280 (11122102)	4.22685 (08122706)
3751658.5	3.25643 (11122102)	3.39431 (08122706)	3.71601 (08122706)	4.03751 (08122706)	4.38110 (12020405)
3751558.5	3.29102 (08122706)	3.53282 (08122706)	3.80692 (12020405)	4.05945 (12020405)	4.27557 (12020405)
3751458.5	3.34639 (12020405)	3.53721 (12020405)	3.69612 (12020405)	3.81007 (12020405)	3.98686 (12122005)

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHDL ***
 INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
 L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	475568.56	475668.56	475768.56	475868.56	475968.56

3753058.5	4.93974 (12111201)	5.32377 (12111201)	5.68510 (12111201)	5.99932 (12111201)	18.31881 (08101421)
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Brodiaea_HRA

Table with 6 columns of numerical data representing HRA concentrations for various source IDs and dates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 476068.56, 476168.56, 476268.56, 476368.56, 476468.56.

Table with 6 columns of numerical data representing HRA concentrations for various source IDs and dates.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 , L0001772 , L0001773 , L0001774 , L0001775 ,
L0001776 , L0001777 , L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 476568.56, 476668.56, 476768.56, 476868.56, 476968.56.

Table with 6 columns of numerical data representing HRA concentrations for various source IDs and dates.

Brodiaea_HRA

Table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3751858.5, 11.36120, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,
L0001776 ,L0001777 ,L0001778 ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477068.56, 477168.56, 477268.56, 477368.56, 477468.56

Large table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3753058.5, 21.50475, etc.)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SOUTHIDL ***
INCLUDING SOURCE(S): L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,
L0001776 ,L0001777 ,L0001778 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 477281.21, 477381.21, 477481.21, 477581.21, 477681.21

Large table with 6 columns of numerical data representing concentrations for various source IDs (e.g., 3755487.1, 16.58080, etc.)

Brodiaea_HRA

3753187.1 | 56.57287 (08092420) 54.26434 (08101502) 50.45732 (08102920) 48.98868 (09070424) 46.60540 (08071522)
 3753087.1 | 62.04819 (08092420) 62.11320 (08101502) 57.87395 (12081105) 20.37975 (12123104) 48.91892 (12052322)
 *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
 L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)			
(METERS)	477499.97	477549.97	477599.97	477649.97

3752975.4 | 674967.19252 (12071022) 628875.32123 (10071504) 580067.79082 (09071423) 531576.75930 (10081003) 496915.96730 (12090904)
 3752925.4 | 766724.36122 (10081905) 703916.42794 (10092620) 642134.76738 (10071804) 591059.19447 (12090904) 531213.24252 (10092001)
 3752875.4 | 881554.73016 (08072604) 797848.55826 (10071804) 720274.29228 (12090904) 642077.94366 (10071306) 579056.52734 (11072801)
 3752825.4 | 1022029.87584 (10071804) 907109.85987 (12090904) 797912.38723 (10071306) 702639.39853 (10051821) 630247.90847 (09071806)
 3752775.4 | 1195489.49634 (12090904) 1021930.84721 (12070124) 891567.79553 (09091724) 772373.41319 (10080123) 679992.86311 (10092703)
 3752725.4 | 1389465.17016 (11072801) 1161264.57961 (09071806) 983377.39867 (10092703) 834539.72466 (09091101) 720907.98052 (10091321)
 3752675.4 | 1630304.71817 (10092703) 1296373.82764 (10091321) 1060043.93498 (12082622) 893587.47553 (09090402) 765337.55078 (12081422)
 3752625.4 | 1836654.96464 (12081422) 1391608.87665 (11081106) 1116195.60787 (12110619) 928185.47674 (12110619) 784988.98955 (12090221)
 3752575.4 | 1925526.16379 (12090624) 1459100.81057 (10092805) 1157572.10542 (10092805) 949333.11712 (10092805) 798031.33816 (10092805)
 3752525.4 | 1882117.87503 (10082603) 1437739.26164 (12090421) 1146253.91373 (12071224) 936893.82036 (09042023) 792891.11988 (09042023)
 3752475.4 | 1693590.11209 (11083122) 1342651.31151 (12091003) 1081432.08901 (08090205) 914601.14862 (10092724) 772151.73914 (10082603)
 3752425.4 | 1486587.96069 (12091523) 1201788.53049 (10072306) 1011444.36882 (10071503) 852542.21707 (09101820) 737000.29610 (12091003)
 3752375.4 | 1264485.02227 (12092821) 1084681.64201 (12092221) 929491.05237 (10071602) 787815.91573 (10072306) 696871.59611 (10071503)
 3752325.4 | 1074587.31225 (11062621) 939573.39307 (12092821) 831117.04277 (09071903) 734872.12847 (12091523) 649303.95756 (10071602)
 3752275.4 | 923844.92235 (10082324) 828288.73130 (11062621) 742004.83584 (08082703) 668638.02561 (09071903) 600537.14415 (09072801)
 3752225.4 | 805816.50767 (12101720) 734177.42049 (12092401) 666248.04767 (12081301) 606215.53619 (08082703) 552890.97232 (10081803)
 3752175.4 | 701571.87916 (10092820) 654025.22541 (12082824) 605211.60334 (09071924) 554266.55454 (12081301) 507554.55048 (08082703)
 3752125.4 | 618153.14606 (12091921) 581785.01182 (12101720) 544385.42581 (12082824) 505171.59684 (09071924) 470906.11637 (12081301)
 3752075.4 | 549556.41181 (09080424) 519478.33325 (12080601) 492166.35615 (12081406) 459813.23974 (10082324) 431447.62158 (09072305)
 3752025.4 | 488501.57144 (12073101) 470791.06917 (12091921) 450454.73199 (10092820) 424303.52408 (12081902) 399099.69720 (12092401)
 3751975.4 | 440182.70974 (12091104) 426720.21684 (09080424) 407431.01533 (08090402) 392359.04655 (12101720) 372838.97462 (12082824)
 3751925.4 | 403596.40447 (12091521) 389274.15236 (10071705) 375151.65714 (12091921) 362469.19586 (10092820) 343333.71220 (12081406)
 3751875.4 | 370441.38750 (12091521) 356224.97687 (12091104) 345248.52381 (12090523) 331590.43227 (08090402) 319165.71190 (12090623)
 3751825.4 | 336590.67048 (12091324) 325795.57039 (1209103) 319001.55095 (10071705) 308597.03783 (12091921) 298641.36346 (10092820)
 3751775.4 | 310027.41820 (12091324) 304894.47988 (12091521) 294261.31778 (12073101) 287622.04986 (12090523) 277175.41745 (08090402)
 3751725.4 | 286611.55818 (12070924) 284805.59560 (12091521) 274725.38837 (12091104) 267856.07005 (09080424) 260072.87496 (12091921)
 3751675.4 | 266564.23831 (11073123) 261679.15718 (10081705) 254459.59554 (09090524) 249896.52615 (10071705) 244345.61020 (12090523)
 3751625.4 | 250576.73690 (12090522) 249670.34262 (12091324) 241457.29085 (12091521) 234551.78975 (12091104) 229990.37774 (09080424)
 3751575.4 | 233429.44303 (12090522) 229382.58987 (12070924) 228272.05303 (12091521) 219847.62985 (12091104) 216374.40277 (10071705)
 3751525.4 | 219553.13372 (12092721) 214882.09124 (12070924) 211924.93249 (10081705) 207218.89930 (09090524) 203152.20359 (12073101)
 3751475.4 | 205888.56001 (12090503) 202882.28893 (11073123) 200478.96567 (12091324) 197951.05888 (12091521) 193176.43924 (12091104)
 3751425.4 | 194455.43877 (12090503) 192764.87745 (12090522) 189290.39063 (12091324) 188736.56187 (12091521) 181780.00187 (12090103)

*** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
 L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)			
(METERS)	477749.97	477799.97	477849.97	477899.97

3752975.4 | 453177.71855 (10092001) 417774.59547 (10061405) 386379.39206 (11072801) 362198.97799 (09091724) 335808.91566 (09071806)
 3752925.4 | 488745.85140 (12070124) 446928.80299 (12041921) 409870.58818 (09091724) 379153.83124 (09072924) 350362.69133 (12062622)
 3752875.4 | 528880.81557 (09091724) 478323.80539 (09071806) 434597.84807 (12062622) 399754.15058 (10092703) 365760.07808 (09071703)
 3752825.4 | 562671.63912 (10080123) 508330.47393 (10092703) 457255.93602 (10091322) 414595.52641 (09091101) 380816.13006 (10091321)
 3752775.4 | 597856.03421 (10091322) 531501.00793 (10091321) 478847.31688 (11081822) 430382.38181 (12082622) 394592.75325 (12091023)
 3752725.4 | 628233.94868 (12082622) 559067.78712 (12091023) 496305.45875 (09090402) 450187.65721 (12081422) 404030.60020 (12081422)
 3752675.4 | 653365.90142 (12081422) 569462.32993 (11081106) 504798.01909 (11071104) 453883.87400 (12110619) 412125.12132 (12110619)

Brodiaea_HRA

3752625.4 | 677447.28454 (12090221) 588260.45242 (08082603) 519861.08154 (09090424) 465881.33351 (09090424) 419333.78991 (09090424)
3752575.4 | 684115.09745 (10092805) 595478.28404 (10092805) 525100.14461 (10092805) 467921.00074 (10092805) 420473.74680 (10092805)
3752525.4 | 677981.49041 (09042023) 587759.45722 (08091902) 517073.06344 (12060623) 461709.94628 (12060623) 415172.79747 (12060623)
3752475.4 | 665517.62134 (10082603) 586173.24968 (12090421) 516736.34511 (12090421) 460637.95807 (12082723) 416790.33947 (12071224)
3752425.4 | 637060.48451 (10071904) 559516.94779 (08090205) 506854.93451 (10092724) 451996.92721 (10081521) 409900.58984 (10082603)
3752375.4 | 605893.89481 (11083122) 540151.58396 (10081702) 485863.62478 (12091003) 435894.41463 (11082222) 394765.32377 (08090205)
3752325.4 | 569365.12304 (10072306) 518854.36293 (10071503) 463365.89393 (11083122) 419630.55808 (09101820) 384456.07120 (10081702)
3752275.4 | 538987.83785 (10071602) 487332.93484 (09090503) 437794.64647 (11091004) 406383.06489 (10071503) 370355.54025 (10081221)
3752225.4 | 508036.38895 (12092221) 461708.56687 (12091523) 425194.55723 (10071602) 385208.11859 (09072404) 351826.71563 (11091004)
3752175.4 | 470457.33888 (10081803) 430869.38908 (08093003) 398232.35568 (09072801) 368996.00189 (12091523) 343201.07507 (10071602)
3752125.4 | 434663.32218 (09071702) 404681.84524 (12092821) 376927.52814 (09071903) 351745.35932 (12092221) 326287.51566 (12091523)
3752075.4 | 406931.94700 (12081301) 378074.19555 (09071702) 354973.05986 (12092821) 330774.27429 (09071903) 311941.05097 (12092221)
3752025.4 | 374726.10172 (09080302) 356525.81657 (12081301) 333187.27906 (09071702) 314055.47094 (12092821) 293948.78923 (10071405)
3751975.4 | 350410.62114 (09071924) 330007.55000 (09080302) 315759.45122 (12081301) 296567.97506 (09071702) 279853.62474 (12092821)
3751925.4 | 327543.38745 (10082324) 312672.23202 (09071924) 293347.90180 (11062621) 282497.55711 (12081301) 266551.28774 (09071702)
3751875.4 | 305912.98932 (12081902) 289685.99101 (10082324) 279455.80276 (09071924) 264319.82986 (11062621) 254791.85934 (12081301)
3751825.4 | 287704.49320 (12101720) 276423.13377 (12082824) 261302.84104 (12092401) 250635.99647 (09072305) 239542.85175 (11062621)
3751775.4 | 269123.21178 (10092820) 257976.78086 (12081406) 248546.11956 (12082824) 238047.18895 (12092401) 227959.75490 (09072305)
3751725.4 | 251269.05416 (12080601) 244592.61698 (12101720) 234941.92715 (12081902) 226028.96809 (10082324) 217424.35039 (09071924)
3751675.4 | 236124.12723 (08090402) 231596.97402 (10092820) 222933.15327 (12101720) 216009.72735 (12082824) 205129.69515 (11011721)
3751625.4 | 223350.84617 (12091921) 216469.43172 (12080601) 210681.39997 (12090623) 203638.59834 (12081406) 198365.39056 (12082824)
3751575.4 | 211132.41366 (12090523) 204662.01242 (08090402) 201498.31665 (10092820) 195359.36194 (12101720) 188243.90185 (12081902)
3751525.4 | 199910.25545 (09080424) 194692.28500 (12091921) 189040.84939 (12080601) 184890.05523 (10092820) 179389.99417 (12101720)
3751475.4 | 189321.94644 (10071705) 184856.83778 (12090523) 179505.78371 (08090402) 176963.54669 (10092820) 171865.92927 (12101720)
3751425.4 | 178527.88410 (12073101) 175790.03928 (09080424) 171886.77430 (12091921) 167089.05319 (08090402) 165060.70970 (10092820)
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474068.56 474168.56 474268.56 474368.56 474468.56

3753058.5 | 48342.40809 (11100220) 50582.03744 (11100220) 52753.65258 (11100220) 55587.14229 (12091422) 58481.90695 (12091422)
3752958.5 | 49018.41997 (12081124) 51134.37139 (12081124) 53292.16583 (12081124) 55362.33721 (12092301) 58202.96840 (12092301)
3752858.5 | 48899.93575 (11070503) 50954.12788 (11070503) 53118.77078 (11070503) 55752.92406 (12081903) 58593.79385 (12081903)
3752758.5 | 49068.07756 (12080901) 51148.90951 (12080901) 53554.75848 (11101321) 56165.26654 (11101321) 58993.15645 (11101321)
3752658.5 | 48524.40835 (11081724) 50613.91993 (08100304) 52965.35866 (08100304) 55506.09466 (08100304) 58267.40331 (08100304)
3752558.5 | 48792.75205 (11063024) 50949.46544 (11063024) 53272.19035 (11063024) 55787.89549 (11063024) 58517.80670 (11063024)
3752458.5 | 48908.72962 (11080324) 51076.27340 (11080324) 53397.84517 (11080324) 55873.45039 (11080324) 58555.73472 (11080324)
3752358.5 | 48809.80483 (11071824) 51030.85828 (11071824) 53393.98280 (11071824) 55872.83482 (11071824) 58495.71672 (11071824)
3752258.5 | 48562.60207 (12090902) 50750.22918 (12083105) 53160.97303 (12083105) 55669.72584 (12083105) 58232.63670 (12083105)
3752158.5 | 48612.19081 (08092822) 50582.63289 (12081404) 53059.08460 (12081404) 55631.16924 (12081404) 58153.87254 (12081404)
3752058.5 | 48234.94245 (11082502) 50170.88969 (11082502) 52697.06042 (11090702) 55298.70274 (11090702) 57789.36625 (11090702)
3751958.5 | 47539.16273 (11082302) 49629.97304 (11082302) 51564.55218 (11082302) 54249.07853 (12072224) 56829.16361 (11082623)
3751858.5 | 47709.40398 (11082623) 50061.74064 (11082623) 52152.42178 (11082623) 53773.58101 (11082623) 56296.75559 (11090806)
3751758.5 | 46942.55270 (11090806) 48778.32986 (11082223) 51045.85865 (11082223) 53036.74673 (12082006) 55690.11721 (12082006)
3751658.5 | 46475.13962 (12082006) 48461.79071 (11090621) 51179.91845 (11090621) 53257.67630 (11090621) 55011.97079 (12090801)
3751558.5 | 46416.55121 (11090621) 47877.32439 (12090801) 50047.29197 (12081123) 52401.07086 (12081123) 53764.35259 (11071724)
3751458.5 | 45872.81012 (12081123) 47089.69044 (12081123) 48734.71277 (11071724) 50858.78555 (11081224) 53050.73724 (11080124)

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 474568.56 474668.56 474768.56 474868.56 474968.56

Brodiaea_HRA

Table with 8 columns of numerical data representing source group concentrations. Includes source IDs like 3753058.5 and 61293.02445.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 ,L0001758 ,L0001759 ,L0001760 ,L0001761 ,
L0001762 ,L0001763 ,L0001764 ,L0001765 ,L0001766 ,L0001767 ,L0001768 ,L0001769 ,
L0001770 ,L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,L0001776 ,L0001777 ,
L0001778 ,L0001779 ,L0001780 ,L0001781 ,L0001782 ,L0001783 ,L0001784 ,...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 475068.56, 475168.56, 475268.56, 475368.56, 475468.56.

Table with 8 columns of numerical data representing source group concentrations. Includes source IDs like 3753058.5 and 79199.29096.

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 ,L0001758 ,L0001759 ,L0001760 ,L0001761 ,
L0001762 ,L0001763 ,L0001764 ,L0001765 ,L0001766 ,L0001767 ,L0001768 ,L0001769 ,
L0001770 ,L0001771 ,L0001772 ,L0001773 ,L0001774 ,L0001775 ,L0001776 ,L0001777 ,
L0001778 ,L0001779 ,L0001780 ,L0001781 ,L0001782 ,L0001783 ,L0001784 ,...

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Table with 2 columns: Y-COORD (METERS) and X-COORD (METERS). Values include 475568.56, 475668.56, 475768.56, 475868.56, 475968.56.

Table with 8 columns of numerical data representing source group concentrations. Includes source IDs like 3753058.5 and 109233.38926.

Brodiaea_HRA

3752458.5 | 115554.18167 (11071824) 125579.32685 (11071824) 136980.36730 (11071824) 150099.39889 (12090902) 166723.58333 (12090902)
3752358.5 | 115309.97113 (08092822) 124583.14884 (08092822) 136272.86154 (12081404) 148713.66978 (12081404) 164066.73363 (11082502)
3752258.5 | 114032.86244 (11090702) 122210.13405 (11082302) 132877.18740 (12072224) 147055.61395 (11082623) 162530.89458 (11082623)
3752158.5 | 112475.73837 (11082623) 120342.95253 (11090806) 130832.06303 (11082223) 143275.18551 (11090621) 158504.84823 (11090621)
3752058.5 | 110739.28068 (11090621) 118913.31254 (11090621) 128682.31882 (12081123) 137993.12384 (12081123) 150543.30014 (11091224)
3751958.5 | 107010.67533 (12081123) 114190.78692 (11091224) 124035.35293 (11080124) 133676.01684 (08093002) 145445.04971 (09092503)
3751858.5 | 103493.15901 (08093002) 111461.31280 (09071706) 119426.83176 (09092503) 129466.44779 (12092224) 139439.64027 (11090524)
3751758.5 | 100399.27647 (09092503) 108030.01281 (12092224) 115604.50005 (09092424) 124721.57290 (11072522) 133822.26163 (12110520)
3751658.5 | 97907.70023 (09092424) 104035.94558 (11072522) 111716.94150 (12081804) 119264.60636 (11082704) 128156.18803 (12092022)
3751558.5 | 94546.02807 (12081804) 100588.42043 (12110520) 106187.26475 (12072103) 113669.38344 (11090703) 120661.82296 (11082604)
3751458.5 | 91539.86865 (11082704) 96785.14644 (12092022) 102397.61892 (12092103) 107934.19968 (11092223) 114680.23991 (10090403)
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)
476068.56	476168.56 476268.56 476368.56 476468.56

3753058.5 | 168449.25712 (12100124) 185739.10393 (12082002) 207448.79321 (12091323) 230607.77743 (10082322) 262144.23673 (12081023)
3752958.5 | 174091.66549 (12092302) 192853.93228 (09082902) 215260.27042 (09082506) 244711.53043 (11080205) 280533.98122 (12091323)
3752858.5 | 178631.72343 (12110521) 200322.79695 (11070123) 224374.92028 (12070903) 256933.95262 (12092302) 297546.03326 (09082902)
3752758.5 | 183897.96427 (11100220) 208092.21203 (12091422) 235619.28937 (10092723) 268672.40702 (10092723) 310607.26951 (12110521)
3752658.5 | 186615.83520 (11101321) 208710.77152 (11070503) 237933.71780 (11070503) 273256.81350 (12081903) 320364.50921 (12081124)
3752558.5 | 186697.96072 (12100123) 210250.80921 (12100123) 239450.02439 (12100123) 276300.42435 (12100123) 324174.87514 (12100123)
3752458.5 | 185607.70686 (12090902) 207683.50102 (12083105) 236133.91573 (12083105) 273144.90126 (08092822) 319001.02712 (12081404)
3752358.5 | 183451.83154 (11090702) 203767.30390 (11090702) 230367.53569 (12072224) 268215.07244 (11082623) 306688.58250 (11082223)
3752258.5 | 177514.56629 (11090806) 198266.77965 (12082006) 227197.40930 (11090621) 256950.40710 (12081123) 291203.33048 (11091224)
3752158.5 | 174202.77370 (12081123) 190301.65126 (11071724) 214416.80210 (11080124) 241424.87770 (09071706) 275419.50134 (12092224)
3752058.5 | 166060.80915 (08093002) 182557.33386 (09092503) 204027.00649 (12092224) 227649.14951 (11090524) 255847.74280 (12110520)
3751958.5 | 159544.16389 (12092224) 174914.44053 (11090524) 193008.87119 (12081804) 211578.05817 (12072103) 236604.82573 (11082604)
3751858.5 | 152070.00586 (11070503) 165423.17746 (11082704) 181773.45642 (12092022) 196995.84411 (11092223) 217408.95935 (11090622)
3751758.5 | 143624.65241 (12072103) 156588.32812 (11090703) 168216.43502 (12100204) 185337.43018 (11090622) 198269.96555 (11092301)
3751658.5 | 137205.84787 (11082604) 146117.57247 (12100204) 160031.41270 (11090622) 169307.85166 (11092301) 182767.49112 (12050821)
3751558.5 | 129001.96668 (10090403) 139668.19827 (11090622) 146918.69916 (11090622) 157704.63141 (12050821) 170207.16232 (09082923)
3751458.5 | 123066.64538 (11090622) 129226.75658 (11092301) 137585.80243 (12050821) 147694.13115 (09082923) 156635.65316 (12081703)
♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , . . . ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)
476568.56	476668.56 476768.56 476868.56 476968.56

3753058.5 | 294054.21332 (11072506) 335991.53482 (09082905) 386729.43107 (11070624) 436585.61836 (10101104) 505334.95503 (12081621)
3752958.5 | 324001.87372 (10082322) 376136.87608 (12082922) 441540.55792 (09072002) 521628.05206 (11070624) 613066.76670 (11070223)
3752858.5 | 348059.41595 (12100124) 413980.77725 (12080824) 501600.74458 (10082322) 615224.09505 (12080623) 768391.54155 (08051801)
3752758.5 | 369010.88356 (11070123) 446443.37830 (11090601) 555959.73599 (09082902) 716100.21192 (12080824) 959735.42870 (12081023)
3752658.5 | 385188.96007 (12081124) 468286.91459 (12092301) 602106.71547 (12091422) 794527.17742 (10100220) 1124985.06939 (11090601)
3752558.5 | 388435.42588 (12100123) 477748.25637 (12100123) 609661.93974 (12100123) 819298.93032 (12100123) 1191709.12420 (12100123)
3752458.5 | 378887.41782 (11082502) 465864.49801 (11090702) 589024.46740 (11082623) 773191.41454 (11082223) 1094712.04219 (12081123)
3752358.5 | 367521.73164 (11090621) 442206.74658 (12081123) 540152.45757 (11080124) 689588.76715 (12092224) 902782.26511 (12092022)
3752258.5 | 340412.63410 (09071706) 404368.96488 (12092224) 486021.17862 (12081804) 592124.58162 (11082604) 721109.11516 (11092301)
3752158.5 | 316658.22327 (11072522) 363655.89842 (12072103) 424300.14022 (12100204) 496842.29386 (11092301) 585019.09145 (10092806)
3752058.5 | 289105.23989 (11090703) 326708.67123 (10090403) 370563.68067 (11092301) 427709.96168 (09082923) 478834.61622 (12081001)
3751958.5 | 261951.78811 (12080806) 291136.08802 (11092301) 325661.25979 (09082923) 363309.62008 (12090823) 399205.63836 (11080221)
3751858.5 | 237099.05554 (11092301) 261784.66103 (12080906) 288689.36260 (12081703) 311628.00839 (12082005) 336109.03636 (08092424)

Brodiaea_HRA

3751758.5 | 216499.77718 (12080906) 235201.45801 (10092806) 254981.84026 (12081001) 272929.86111 (11080221) 289910.72840 (08061823)
 3751658.5 | 197423.38830 (11082324) 212056.74255 (12090823) 224328.07526 (10092906) 238851.54281 (08092424) 249109.85672 (09051703)
 3751558.5 | 178909.79104 (12081703) 190214.40742 (12071204) 202881.73430 (11080221) 211307.75751 (09092703) 221114.50246 (11080203)
 3751458.5 | 164434.17219 (12081001) 172776.37127 (10092906) 181626.42512 (10090402) 189219.22243 (08061823) 196737.76855 (11082706)
 ♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13

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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
 L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART2 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)			
(METERS)	477068.56	477168.56	477268.56	477368.56

3753058.5 | 556760.36622 (08093001) 598549.52495 (12101423) 613466.06670 (12100622) 605109.93499 (09101624) 562913.25258 (12100120)
 3752958.5 | 716367.60736 (12083023) 795488.99697 (12081706) 829306.39313 (12100622) 808681.27226 (10082401) 733646.40956 (12091502)
 3752858.5 | 952877.38245 (12081423) 1131474.97984 (10081823) 1217696.59555 (12082620) 1150713.49547 (10090122) 989358.08867 (12090504)
 3752758.5 | 1317779.77015 (12080905) 1775425.71297 (12091101) 2040705.63142 (12082620) 1839383.88833 (09042101) 1396042.98281 (08090502)
 3752658.5 | 1795729.30393 (11080205) 3266844.80901 (10082604) 4521500.75429 (09082904) 3590286.37229 (08090502) 2010551.86452 (10092703)
 3752558.5 | 2016523.89424 (09091024) 4754819.49949 (12090902) ***** (11090621) 6620446.45341 (12071224) 2367860.52664 (09072306)
 3752458.5 | 1662498.75353 (09092424) 2709824.96733 (11092301) 3694539.22135 (09090303) 3146916.16952 (09071924) 1914913.00707 (10071602)
 3752358.5 | 1201229.87308 (11092301) 1573287.26804 (11080221) 1801474.61468 (12083024) 1674655.56885 (10071705) 1306685.14293 (11062621)
 3752258.5 | 886678.64805 (12090823) 1027205.84811 (08061823) 1114026.65664 (09072106) 1071669.81002 (12091324) 934720.46916 (12101720)
 3752158.5 | 673934.45020 (11080221) 740944.51488 (11082706) 781015.96409 (10092821) 761274.24779 (12092721) 696272.85887 (12090523)
 3752058.5 | 526523.65588 (12090402) 567816.87236 (12081523) 588930.75672 (10092821) 576464.05482 (11090705) 538007.71996 (12091104)
 3751958.5 | 425221.47645 (09051703) 448862.28275 (11102919) 465254.38550 (10092821) 457553.31815 (12080902) 438111.80047 (12091521)
 3751858.5 | 356160.83633 (11080203) 374814.75072 (11090623) 380082.10185 (10092821) 375900.64354 (12081802) 361283.48185 (12070924)
 3751758.5 | 301410.71081 (10093002) 312243.03007 (12093024) 318646.43377 (10092821) 314390.62301 (12081006) 307621.44606 (12090522)
 3751658.5 | 262414.77922 (12081523) 266002.68245 (12111419) 272313.03020 (10092821) 268855.73741 (09072201) 263963.14081 (12092721)
 3751558.5 | 227198.44425 (12100103) 232355.12439 (11072602) 236410.62776 (10092821) 234717.36179 (09072201) 229627.12217 (12090503)
 3751458.5 | 201501.76181 (11102919) 204905.91883 (11072602) 208048.47418 (10092821) 206409.75886 (08091522) 203291.43630 (11090705)

♀ *** AERMOD - VERSION 15181 *** *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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***MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): L0001757 , L0001758 , L0001759 , L0001760 , L0001761 ,
 L0001762 , L0001763 , L0001764 , L0001765 , L0001766 , L0001767 , L0001768 , L0001769 ,
 L0001770 , L0001771 , L0001772 , L0001773 , L0001774 , L0001775 , L0001776 , L0001777 ,
 L0001778 , L0001779 , L0001780 , L0001781 , L0001782 , L0001783 , L0001784 , ... ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)			
(METERS)	477281.21	477381.21	477481.21	477581.21

3755487.1 | 80513.49370 (12090722) 80280.68560 (11082705) 79537.96072 (08092703) 79463.08589 (09082805) 78264.08892 (11061306)
 3755387.1 | 84370.43581 (12090722) 83722.57063 (11082705) 82964.03862 (08092703) 82880.70837 (09082805) 81405.02547 (11061306)
 3755287.1 | 87979.18823 (12090722) 87340.74810 (11082705) 86641.99802 (08092703) 85965.95705 (09082805) 84076.91082 (11061306)
 3755187.1 | 92153.54880 (12090722) 91443.85686 (11082705) 90249.04525 (08092703) 89521.84908 (11091604) 88749.23328 (11061106)
 3755087.1 | 95882.57433 (12090722) 95757.68636 (11082705) 94370.55568 (11071105) 94486.81935 (11091604) 92997.96926 (11061106)
 3754987.1 | 100362.60506 (12090722) 99834.06843 (11082705) 99368.23915 (11071105) 98855.01920 (11091604) 96688.30107 (11061106)
 3754887.1 | 105251.73911 (12090722) 104597.98030 (11082705) 104785.01997 (11071105) 103125.32482 (11091604) 103420.18453 (09101624)
 3754787.1 | 111674.16476 (12090722) 110314.31912 (09080306) 110955.86481 (11071105) 108477.32674 (11061306) 108454.68027 (09101624)
 3754687.1 | 117570.43530 (12090722) 117370.31815 (09080306) 115848.35574 (08041324) 114374.28330 (11061306) 114054.43888 (09080506)
 3754587.1 | 123947.99924 (12090722) 124567.30673 (09080306) 1247948.21198 (11091604) 119927.87629 (11061106) 120092.01976 (09080506)
 3754487.1 | 132713.15118 (12090722) 131770.04624 (09080306) 131147.17495 (09082805) 129016.90181 (11061106) 127268.60020 (08082305)
 3754387.1 | 140613.45557 (12090722) 141381.21942 (09080306) 140259.57312 (09082805) 135557.81287 (10092323) 136084.03113 (10082401)
 3754287.1 | 150271.16936 (12090722) 149721.21471 (09080306) 147948.21198 (11091604) 146456.55500 (09101624) 144636.53635 (10082401)
 3754187.1 | 158544.82538 (12090722) 155854.28218 (08092703) 154684.99029 (11091604) 152856.25421 (09080506) 152284.52189 (09090203)
 3754087.1 | 168768.36645 (12090722) 170558.29633 (08092703) 166786.77874 (11091604) 162980.31258 (09080506) 164662.49722 (10092922)
 3753987.1 | 182190.86554 (12090722) 181939.87448 (08092703) 176543.05807 (10051424) 174967.76661 (08082305) 172513.40487 (10090122)
 3753887.1 | 193357.92579 (12090722) 190393.88684 (08092703) 187768.15614 (10092323) 186417.89134 (10082401) 179934.05954 (09092105)
 3753787.1 | 214957.23635 (12090722) 209937.13945 (08041324) 201586.26194 (09101624) 200011.72758 (09090203) 189720.65055 (10072205)
 3753687.1 | 235862.53590 (12090722) 213930.22392 (08041324) 212220.02939 (09101624) 209256.65925 (10092922) 196231.61149 (10082606)
 3753587.1 | 255003.19958 (12090722) 247292.94543 (09082805) 234439.71976 (09080506) 229132.43602 (10090122) 215310.84548 (09092423)

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3753487.1 | 289233.51673 (12090722) 281282.37913 (09082805) 268970.95806 (10082401) 248564.64193 (10082606) 236563.39573 (09072503)
3753387.1 | 326722.73985 (12090722) 317053.13453 (11091604) 305962.23011 (09090203) 285933.32914 (08090206) 272134.41338 (12091502)
3753287.1 | 373818.96778 (12090722) 362124.20463 (10051424) 354507.39404 (10090122) 333621.55077 (09072503) 312567.66066 (10100221)
3753187.1 | 456297.12040 (12090722) 443686.68770 (09101624) 422824.48486 (10082606) 397254.76606 (12091502) 362471.60251 (12090504)
3753087.1 | 576398.23364 (12090722) 558682.86313 (09080506) 522443.39070 (09092423) 471654.83034 (10100221) 420212.58084 (10092620)

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

NETWORK
GROUP ID AVERAGE CONC RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID

IDLE_WES 1ST HIGHEST VALUE IS 380.90742 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
2ND HIGHEST VALUE IS 225.29876 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
3RD HIGHEST VALUE IS 131.22212 AT (477268.56, 3752558.53, 473.90, 473.90, 0.00) GC UCART2
4TH HIGHEST VALUE IS 107.44438 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
5TH HIGHEST VALUE IS 61.88997 AT (477468.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
6TH HIGHEST VALUE IS 61.53410 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
7TH HIGHEST VALUE IS 51.50320 AT (477368.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
8TH HIGHEST VALUE IS 48.08744 AT (477499.97, 3752525.43, 474.00, 474.00, 0.00) GC UCART1
9TH HIGHEST VALUE IS 47.31264 AT (477499.97, 3752475.43, 474.00, 474.00, 0.00) GC UCART1
10TH HIGHEST VALUE IS 42.84219 AT (477268.56, 3752658.53, 474.70, 474.70, 0.00) GC UCART2

OFF1 1ST HIGHEST VALUE IS 42.05338 AT (477499.97, 3752675.43, 475.00, 475.00, 0.00) GC UCART1
2ND HIGHEST VALUE IS 41.67988 AT (477499.97, 3752625.43, 475.00, 475.00, 0.00) GC UCART1
3RD HIGHEST VALUE IS 41.53040 AT (477481.21, 3754487.10, 491.00, 491.00, 0.00) GC UCART3
4TH HIGHEST VALUE IS 41.43661 AT (477499.97, 3752725.43, 475.50, 475.50, 0.00) GC UCART1
5TH HIGHEST VALUE IS 41.02376 AT (477499.97, 3752775.43, 476.00, 476.00, 0.00) GC UCART1
6TH HIGHEST VALUE IS 40.80090 AT (477468.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
7TH HIGHEST VALUE IS 40.72314 AT (477499.97, 3752825.43, 476.00, 476.00, 0.00) GC UCART1
8TH HIGHEST VALUE IS 40.54186 AT (477481.21, 3754687.10, 492.80, 492.80, 0.00) GC UCART3
9TH HIGHEST VALUE IS 40.39657 AT (477499.97, 3752875.43, 476.80, 476.80, 0.00) GC UCART1
10TH HIGHEST VALUE IS 40.10555 AT (477499.97, 3752925.43, 477.00, 477.00, 0.00) GC UCART1

OFF2 1ST HIGHEST VALUE IS 42.08023 AT (477168.56, 3752558.53, 473.00, 473.00, 0.00) GC UCART2
2ND HIGHEST VALUE IS 33.85493 AT (477168.56, 3752258.53, 471.20, 471.20, 0.00) GC UCART2
3RD HIGHEST VALUE IS 32.11811 AT (477168.56, 3752358.53, 472.00, 472.00, 0.00) GC UCART2
4TH HIGHEST VALUE IS 31.86134 AT (474468.56, 3752158.53, 472.00, 472.00, 0.00) GC UCART2
5TH HIGHEST VALUE IS 31.57946 AT (477168.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
6TH HIGHEST VALUE IS 26.97506 AT (474368.56, 3752158.53, 472.20, 472.20, 0.00) GC UCART2
7TH HIGHEST VALUE IS 22.94954 AT (474268.56, 3752158.53, 470.40, 470.40, 0.00) GC UCART2
8TH HIGHEST VALUE IS 22.40741 AT (474168.56, 3752158.53, 469.70, 469.70, 0.00) GC UCART2
9TH HIGHEST VALUE IS 22.32917 AT (475568.56, 3752258.53, 472.00, 472.00, 0.00) GC UCART2
10TH HIGHEST VALUE IS 22.29978 AT (475468.56, 3752258.53, 472.00, 472.00, 0.00) GC UCART2

ONSOUTH 1ST HIGHEST VALUE IS 652.76746 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
2ND HIGHEST VALUE IS 222.70058 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
3RD HIGHEST VALUE IS 134.15031 AT (477268.56, 3752558.53, 473.90, 473.90, 0.00) GC UCART2
4TH HIGHEST VALUE IS 112.33651 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
5TH HIGHEST VALUE IS 77.05055 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
6TH HIGHEST VALUE IS 61.33152 AT (477368.56, 3752358.53, 473.00, 473.00, 0.00) GC UCART2
7TH HIGHEST VALUE IS 53.33164 AT (477468.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
8TH HIGHEST VALUE IS 50.75471 AT (477499.97, 3752475.43, 474.00, 474.00, 0.00) GC UCART1
9TH HIGHEST VALUE IS 49.62642 AT (477368.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
10TH HIGHEST VALUE IS 47.39438 AT (477499.97, 3752425.43, 473.00, 473.00, 0.00) GC UCART1

*** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF UNITEMIS IN MICROGRAMS/M**3 **

NETWORK
GROUP ID AVERAGE CONC RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID

ONWEST 1ST HIGHEST VALUE IS 389.07547 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
2ND HIGHEST VALUE IS 187.85931 AT (477268.56, 3752558.53, 473.90, 473.90, 0.00) GC UCART2
3RD HIGHEST VALUE IS 149.45459 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2

Brodiaea_HRA

4TH HIGHEST VALUE IS 95.82280 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 5TH HIGHEST VALUE IS 70.30221 AT (477368.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
 6TH HIGHEST VALUE IS 61.18324 AT (477268.56, 3752658.53, 474.70, 474.70, 0.00) GC UCART2
 7TH HIGHEST VALUE IS 58.77993 AT (477468.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 8TH HIGHEST VALUE IS 49.77605 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
 9TH HIGHEST VALUE IS 43.57015 AT (477499.97, 3752525.43, 474.00, 474.00, 0.00) GC UCART1
 10TH HIGHEST VALUE IS 40.35836 AT (477499.97, 3752475.43, 474.00, 474.00, 0.00) GC UCART1

PARKINGL 1ST HIGHEST VALUE IS 8389911.86864 AT (477268.56, 3752558.53, 473.90, 473.90, 0.00) GC UCART2
 2ND HIGHEST VALUE IS 519307.08683 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 3RD HIGHEST VALUE IS 208862.51372 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 4TH HIGHEST VALUE IS 203432.34942 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 5TH HIGHEST VALUE IS 183115.46735 AT (477168.56, 3752558.53, 473.00, 473.00, 0.00) GC UCART2
 6TH HIGHEST VALUE IS 164082.90977 AT (477268.56, 3752658.53, 474.70, 474.70, 0.00) GC UCART2
 7TH HIGHEST VALUE IS 119411.07508 AT (477468.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 8TH HIGHEST VALUE IS 112338.88377 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
 9TH HIGHEST VALUE IS 109898.49379 AT (477368.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
 10TH HIGHEST VALUE IS 98940.33609 AT (477499.97, 3752525.43, 474.00, 474.00, 0.00) GC UCART1

SOUTHIDL 1ST HIGHEST VALUE IS 1960.69946 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 2ND HIGHEST VALUE IS 159.60636 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
 3RD HIGHEST VALUE IS 96.32357 AT (477368.56, 3752358.53, 473.00, 473.00, 0.00) GC UCART2
 4TH HIGHEST VALUE IS 89.23311 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 5TH HIGHEST VALUE IS 86.16221 AT (477499.97, 3752425.43, 473.00, 473.00, 0.00) GC UCART1
 6TH HIGHEST VALUE IS 85.40425 AT (477499.97, 3752475.43, 474.00, 474.00, 0.00) GC UCART1
 7TH HIGHEST VALUE IS 71.33369 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 8TH HIGHEST VALUE IS 66.72417 AT (477468.56, 3752358.53, 472.00, 472.00, 0.00) GC UCART2
 9TH HIGHEST VALUE IS 61.35612 AT (477499.97, 3752525.43, 474.00, 474.00, 0.00) GC UCART1
 10TH HIGHEST VALUE IS 61.26078 AT (477499.97, 3752375.43, 472.30, 472.30, 0.00) GC UCART1

ALL 1ST HIGHEST VALUE IS 8390431.35824 AT (477268.56, 3752558.53, 473.90, 473.90, 0.00) GC UCART2
 2ND HIGHEST VALUE IS 520412.87953 AT (477368.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 3RD HIGHEST VALUE IS 211861.01925 AT (477368.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 4TH HIGHEST VALUE IS 203832.36150 AT (477268.56, 3752458.53, 473.00, 473.00, 0.00) GC UCART2
 5TH HIGHEST VALUE IS 183288.04934 AT (477168.56, 3752558.53, 473.00, 473.00, 0.00) GC UCART2
 6TH HIGHEST VALUE IS 164270.59000 AT (477268.56, 3752658.53, 474.70, 474.70, 0.00) GC UCART2
 7TH HIGHEST VALUE IS 119666.96202 AT (477468.56, 3752558.53, 474.00, 474.00, 0.00) GC UCART2
 8TH HIGHEST VALUE IS 112695.34594 AT (477468.56, 3752458.53, 473.10, 473.10, 0.00) GC UCART2
 9TH HIGHEST VALUE IS 110118.38258 AT (477368.56, 3752658.53, 475.00, 475.00, 0.00) GC UCART2
 10TH HIGHEST VALUE IS 99150.35470 AT (477499.97, 3752525.43, 474.00, 474.00, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
 *** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF UNITEMS IN MICROGRAMS/M**3 **

GROUP ID	DATE	AVERAGE CONC (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
IDL_WES HIGH	1ST HIGH VALUE IS	1442.24802 ON 09101217:	AT (477368.56, 3752558.53, 474.00, 474.00, 0.00)	GC UCART2	
OFF1 HIGH	1ST HIGH VALUE IS	118.13455 ON 11060807:	AT (477499.97, 3752675.43, 475.00, 475.00, 0.00)	GC UCART1	
OFF2 HIGH	1ST HIGH VALUE IS	95.53904 ON 11060807:	AT (477168.56, 3752558.53, 473.00, 473.00, 0.00)	GC UCART2	
ONSOUTH HIGH	1ST HIGH VALUE IS	1495.92932 ON 09052507:	AT (477368.56, 3752458.53, 473.00, 473.00, 0.00)	GC UCART2	
ONWEST HIGH	1ST HIGH VALUE IS	1306.27845 ON 12071319:	AT (477368.56, 3752558.53, 474.00, 474.00, 0.00)	GC UCART2	
PARKINGL HIGH	1ST HIGH VALUE IS	24758360.51374 ON 11090621:	AT (477268.56, 3752558.53, 473.90, 473.90, 0.00)	GC UCART2	
SOUTHIDL HIGH	1ST HIGH VALUE IS	5466.67429 ON 12011516:	AT (477368.56, 3752458.53, 473.00, 473.00, 0.00)	GC UCART2	
ALL HIGH	1ST HIGH VALUE IS	24759485.62344 ON 11090621:	AT (477268.56, 3752558.53, 473.90, 473.90, 0.00)	GC UCART2	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR

Brodiaea_HRA

DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** Brodiaea HRA Concentrations *** 02/05/17
*** AERMET - VERSION 14134 *** Unit Emissions (template for 1-hour and Annual Average Impacts) *** 23:32:13
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**MODELOPTs: RegDFault CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

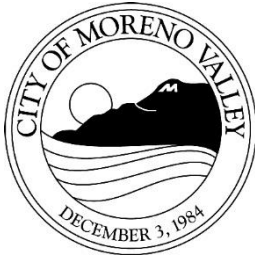
A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 2006 Informational Message(s)

A Total of 43848 Hours Were Processed
A Total of 7 Calm Hours Identified
A Total of 1999 Missing Hours Identified (4.56 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
MX W400 43849 MAIN: Output values exceed format limit; use OU FILEFORM = EXP

*** AERMOD Finishes Successfully ***



PLANNING COMMISSION

STAFF REPORT

Meeting Date: April 27, 2017

ZONE CHANGE - THE APPLICANT IS SEEKING APPROVAL OF A ZONE CHANGE FROM R1 TO R2 FOR A 10 ACRE SITE ALONG THE SOUTH SIDE OF MOUNTAIN RANCH ROAD AT NORTHSORE DRIVE, MAKING THE ZONING CONSISTENT WITH THE PROJECT SITE'S RESIDENTIAL 2 GENERAL PLAN LAND USE DESIGNATION

Case: PEN16-0042 (PA16-0026)

Applicant: Naji Doumit

Owner: Elie Abinader, John Klabb and Naji Doumit

Representative: Naji Doumit

Location: South side of Mountain Ranch Road at Northshore Drive, northerly of Ironwood Avenue
APN: 474-250-003

Case Planner: Jeff Bradshaw

Council District: 2

SUMMARY

The applicant, Naji Doumit, is seeking approval of a Zone Change from R1 to R2 for a vacant 10 acre site in the north central area of the City to make the zoning designation of the site consistent with the long standing Residential 2 General Plan land use designation for the property.

PROJECT DESCRIPTION

Background

At the time of adoption of the City's initial General Plan in 1988, the General Plan designation for the ten acres of land that is the subject of this application was established as Residential 2 (R2). The adoption of the City's first Zoning Atlas took place in 1992 and the designated zoning for the site in question was Residential 1 (R1). In 2006, the City processed the most recent comprehensive update of its General Plan and at that time retained the General Plan land use designation of R2 for the property. Based on this historical record, the zoning designation has remained inconsistent with the General Plan designation since adoption of the City's first General Plan.

Per the State Planning regulations set forth in Government Code 65860, a general law city's zoning ordinance is to be consistent with its general plan, and the various land uses authorized by the ordinance must be compatible with the objectives, policies, general land uses, and programs specified in the plan. The Government Code further states that in the event that a zoning ordinance becomes inconsistent with a general plan by reason of amendment to the plan, or to any element of the plan, the zoning ordinance shall be amended within a reasonable time so that it is consistent with the general plan as amended.

A previous development proposal for the site in question was presented to the Planning Commission in 2009. The property owner proposed a Zone Change from R1 to R2 to correct the inconsistency. In addition, at that time the applicant made a proposal for Tentative Tract Map (TTM) 32388 to subdivide the project site into 14 lots for single-family residential development. The proposed project included perimeter street improvements (Mountain Ranch Road) and off-site utility and infrastructure improvements (sewer and storm drain). The proposed residential lot sizes ranged from 20,000 square feet to 39,000 square feet and would have been consistent with the requested R2 zoning designation.

The Planning Commission voted 4-1 at its June 25, 2009 meeting recommending that the City Council approve both the Zone Change and the TTM 32388. City Council public hearings were conducted for this project on September 8, 2009 and November 10, 2009. At the November 10th meeting, the City Council voted 3-2 to not introduce the ordinance for adoption of the proposed Zone Change. No action was taken by the City Council on the Tentative Tract Map.

Based on this prior action of the City Council the zoning designation and General Plan designations for the property remain inconsistent internally, and inconsistent with the requirements of Government Code 65860.

Project

The proposed zone change would change the existing Residential 1 (R1) land use district designation with a Residential 2 (R2) zoning district designation. Both zoning designations are intended to maintain rural character, and to allow for large lot, single family residential developments. Primary differences of the two zoning designation is the minimum allowed residential lot size and the maximum number of dwelling units per

acre allowed. For R1 zoning the minimum lot size is 40,000 square feet, and allows for 1 dwelling unit per acre. For R2 zoning the minimum lot size is 20,000 square feet, and allows 2 dwelling units per acre.

The proposed 20,000 square foot minimum lot size under the R2 land use district would be compatible with the predominant R2 zoned surrounding properties, and with the surrounding areas through which the project will take access.

Site

The project site is generally located northeast of Ironwood Avenue and Vista de Cerros Drive, lying on the south side of Mountain Ranch Road at Northshore Drive. The western third of the site is generally level with the eastern two-thirds characterized by a rocky knoll and several man-made basins. The site is vacant. Photos of the site are included as attachments to this report.

Surrounding Area

The surrounding area generally to the west and north is designated for single-family residential uses at the R2 density and includes existing development. The surrounding area generally to the south and east is designated for single-family residential at the R1 density, and is sparsely developed. The hillside area that lies to the northeast at the end of Mountain Ranch Road and extending uphill to Kalmia Avenue is designated for Hillside Residential uses. This area includes steeply sloping terrain that make up the lower slopes of the Reche Hills.

The project site is at the interface between existing R1 and R2 districts. Access to the project site is through existing development at R2 densities. The proposed Zone Change is compatible with existing and planned land uses, and the City's General Plan goals and objectives.

REVIEW PROCESS

The new application for this project was submitted in May 2016. The project has been considered by all appropriate agencies within and outside of the City as is standard process with these types of development applications. The project has also been reviewed by the Project Review Staff Committee as dictated by the City Municipal Code.

Upon completion of the development review process, as well as review of final drafts of the required trip generation evaluation and completion of the Initial Study / Negative Declaration, a determination was made to schedule this project for the Planning Commission public hearing on April 27, 2017.

ENVIRONMENTAL

An Initial Study was prepared which examined the potential of the proposed project to have an impact on the environment. The Initial Study provides information in support of the findings for a Negative Declaration. The proposed project will not have a significant effect on the environment. A Trip Generation Evaluation was prepared for the project and demonstrated that a full traffic study was not required for the project based on the low traffic generation forecasted for projected build-out density. No other studies were required for this project.

Public notice of the availability of the Initial Study / Negative Declaration (ND) for public review was published in the newspaper 20 days in advance of the Planning Commission public hearing. The public notification is consistent with the requirements of the California Environmental Quality Act (CEQA) Guidelines.

At the time of publication of this staff report staff has received no public comments on the ND. Two calls have been received from the public, one asking for an opportunity to come in and review project files and the environmental document, and one asking if photos of the project area will be included in the report to the Planning Commission. Both requests have been accommodated.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on April 7, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on April 13, 2017. The public hearing notice for this project was posted on the project site on April 17, 2017.

As of the date of report preparation, staff has received one email requesting a copy of the negative declaration / Initial study and the staff report.

REVIEW AGENCY COMMENTS

Staff received the following responses to the Project Review Staff Committee transmittal; which was sent to all potentially affected reviewing agencies.

<u>Agency</u>	<u>Response Date</u>	<u>Comments</u>
Riverside County Flood Control	June 20, 2016	Comment letter
Southern California Edison	August 11, 2016	Comment letter
Eastern Municipal Water District	June 23, 2016	Comment letter

The City received requests for consultation from the Agua Caliente Band of Cahuilla Indians, the Pechanga Band of Luiseno Indians, and the Soboba Band of Luiseno Indians. The City met in consultation with each of the above Native American Tribes in compliance with Assembly bill 52 to complete the consultation process. The City recognized the interest expressed by the tribes with regard to the participation of tribal monitors during construction (grading) to mitigate potential impacts to inadvertent finds of cultural resources or human remains. Since the proposed project is for a Zone Change from R1 to R2 only and does not include a specific development application

(e.g. subdivision map, Plot Plan), there was agreement that site specific tribal resources, including mitigation if required, will be further addressed at the time of City review of a development specific application.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

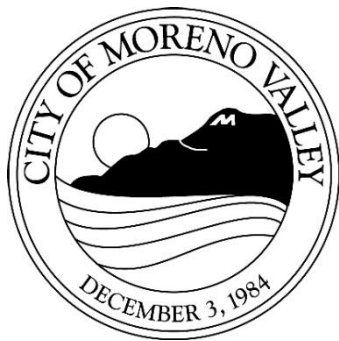
1. **APPROVE** Resolution No. 2017-2 and thereby **RECOMMEND** that the City Council:
 - **ADOPT** a Negative Declaration for Zone Change application PEN16-0042, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
 - **APPROVE** Zone Change application PEN16-0042 based on the findings contained in this resolution, and as shown on the attachment included as Exhibit A.

Prepared by:
Jeffrey Bradshaw
Associate Planner

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. 300 Foot Radius Map
3. Resolution 2017-22
4. Exhibit A to Resolution 2017-22
5. Mitigated Negative Declaration
6. Initial Study Checklist
7. Aerial Photograph
8. Project Site Photographs



This may affect your property

Notice of PUBLIC HEARING

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

Project: PEN16-0042 (PA16-0026) – Zone Change

Applicant: Naji Doumit
Owner: Elie Abinader, John Klabb and Naji Doumit
Representative: Naji Doumit
A.P. No: 474-250-003
Location: South side of Mountain Ranch Road at Northshore Drive, northerly of Ironwood Avenue.

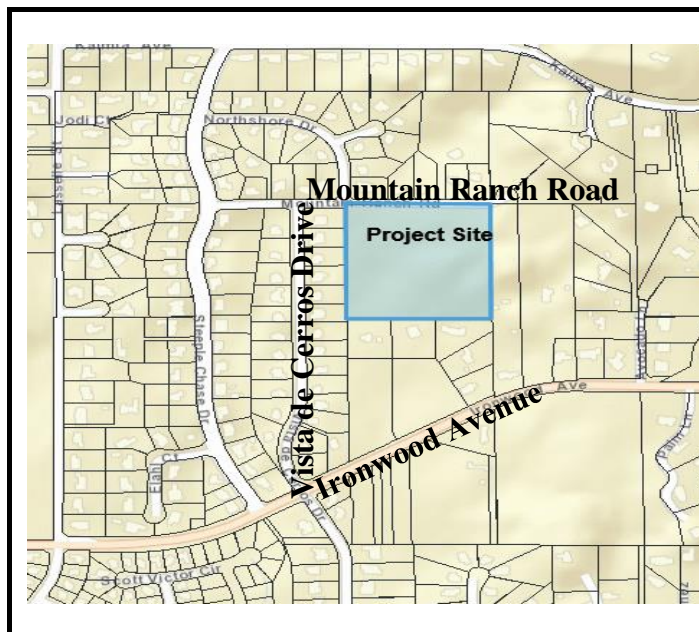
Proposal: Zone Change from the existing zoning for the 10 acre project site from R1 (minimum lot size of 40,000 square feet) to R2 (minimum lot size of 20,000 square feet). The proposed land use change is consistent with the existing Residential 2 General Plan land use designation for the project site and the zoning of adjacent developed single family residential properties to the west and north.

Council District: 2

Environmental Determination: Negative Declaration. The City of Moreno Valley has reviewed the above project and has prepared an Initial Study in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15070. The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment.

A public hearing before the Planning Commission has been scheduled for the proposed project. Any person interested in commenting on the proposal and recommended environmental determination may speak at the hearing or provide written testimony at or prior to the hearing. The project application, supporting plans and environmental documents may be inspected at the Community Development Department at 14177 Frederick Street, Moreno Valley, California during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m., Friday), or you may telephone (951) 413-3206 for further information.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal. If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.



LOCATION N ↑

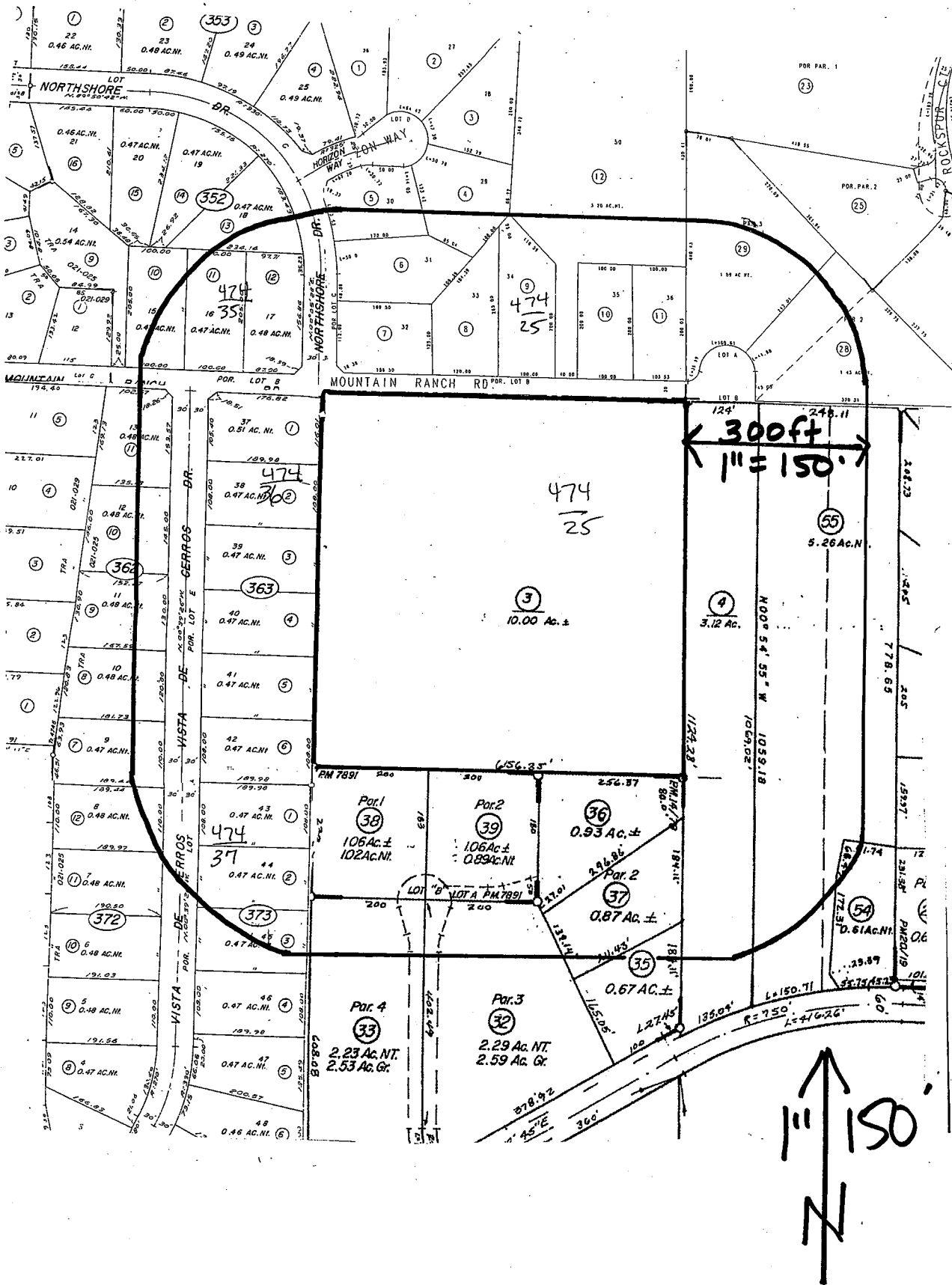
PLANNING COMMISSION HEARING

City Council Chamber, City Hall
 14177 Frederick Street
 Moreno Valley, Calif. 92553

DATE AND TIME: April 27, 2017, 7:00 p.m.
CONTACT PLANNER: Jeff Bradshaw
PHONE: (951) 413-3224

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Attachment: Public Hearing Notice (2609 : PEN16-0042 (PA16-0026) Zone Change)



Attachment: 300 Foot Radius Map (2609 : PEN16-0042 (PA16-0026) Zone Change)

PLANNING COMMISSION RESOLUTION NO. 2017-22

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING THAT THE CITY COUNCIL APPROVE ZONE CHANGE APPLICATION NO. PEN16-0042 (PA16-0026): AN AMENDMENT TO THE OFFICIAL ZONING ATLAS, CHANGING THE ZONING CLASSIFICATION FROM R1 TO R2 FOR APPROXIMATELY 10 ACRES GENERALLY LOCATED ON THE SOUTH SIDE OF MOUNTAIN RANCH ROAD AT NORTSHORE DRIVE, NORTHERLY OF IRONWOOD AVENUE (ASSESSOR'S PARCEL NUMBER: 474-250-003).

WHEREAS, the applicant, Naji Doumit, filed Application No. PEN16-0042, requesting an amendment to Page 37 of the Official Zoning Atlas to the zoning classification for certain property, as described in the title of this resolution and the attached Exhibit A; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, the proposed application for the Zone Change has been fully evaluated and considered with respect to the City's General Plan; and

WHEREAS, the City completed an independent review of the project for consistency with the California Environmental Quality Act (CEQA). Based on a thorough analysis including preparation of a detailed Initial Study, staff determined that the project would qualify for a Negative Declaration in that no direct physical impact will occur, and no potentially significant indirect impacts were identified; and

WHEREAS, on April 27, 2017, the Planning Commission of the City of Moreno Valley held a properly noticed public hearing to consider the subject applications and all of the environmental documentation prepared for the project; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, the Planning Commission considered the Initial Study prepared for the project for the purpose of compliance with the California Environmental Quality Act (CEQA). Based on the Initial Study, it was determined that the project impacts are less than significant and approval of a Negative Declaration is recommended.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found and determined and resolved by the Planning Commission of the City of Moreno Valley as follows:

- A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies** – The proposed General Plan Amendment and Change of Zone is consistent with the General Plan, and its goals, objectives, policies and programs.

FACT: In the Introduction to the General Plan (Section 9.0), it states that the General Plan is “an expression of the community’s vision for the physical, social, cultural and economic development of Moreno Valley.” As the identified site was designated R2 in the General Plan in 1988 and remained R2 in the General Plan update, this would suggest that the vision for this particular area of Moreno Valley was for an R2 General Plan designation.

The proposed zone change from Residential 1 to Residential 2 would change the land use district to a higher density but within the acceptable density under the project site’s existing Residential 2 General Plan land use designation. The proposed one-half acre minimum lot size under the Residential 2 land use district is compatible with the predominant Residential 2 land use designation for surrounding properties and with the developed pattern of land uses in this area to the north and west.

Consistent with General Plan Community Goals 2.1 and 2.4, the proposed Zone Change will establish a single family land use zoning designation that is compatible with surrounding residential land uses and will promote development of the site’s undeveloped parcel.

2. **Conformance with the Zoning Regulations** – The proposed zoning is consistent with the purposes and intent of Title 9 of the City of Moreno Valley Municipal Code.

FACT: As proposed, the Change of Zone from R1 to R2 for the 10 acre project site is consistent with the purposes and intent of Title 9. Future residential development under the R2 would continue to further the comprehensive and orderly development of the site and surrounding areas.

The proposed Zone Change to R2 is compatible with the established zoning designations of the parcels to the west and north. The change from the existing R1 to R2 for the 10 acre project site considers the land use patterns in this area of the community.

3. **Health, Safety and Welfare** – The proposal will not be detrimental to the public health, safety or welfare.

FACT: The proposed Zone Change is a legislative action and will not result in any direct physical impacts; therefore, the action itself could not be detrimental to the public health, safety or welfare. Further, the Zone Change is consistent with the City's General Plan which was developed to guide the future development of the City.

Future development of the site will be required to comply with the City's General Plan policies and land use designation and the City's Municipal Code. This will ensure that future development is consistent with the General Plan, zoning, and public health safety and welfare.

The proposed Zone Change will not adversely affect the public health, safety or general welfare. The California Environmental Quality Act (CEQA) is a statewide environmental law contained in Public Resources Code §§21000-21177. CEQA applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to affect the environment. CEQA requires that public agencies analyze and acknowledge the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts to the environment when avoidance or reduction is feasible. The CEQA compliance process provides public agencies and the general public an opportunity to comment on a proposed project's environmental effects.

The Negative Declaration is an informational document that provides the City, other public agencies, and the public at-large with an objective assessment of the potential environmental impacts that could result from implementation of the proposed project.

An Initial Study/Negative Declaration was prepared which assessed the potential of the proposed Zone Change, to impact the environment.

The Initial Study provided the documentation of the factual basis for the finding in the Negative Declaration that the proposed project will not have a significant effect on the environment. The City as the Lead Agency has prepared a Negative Declaration (MND) pursuant to Sections 15070 et seq. of the State CEQA Guidelines. The preparation and review of the Initial Study / Negative Declaration reflects the independent judgment of the City.

The Negative Declaration has been considered by the Planning Commission and there is no evidence that the proposed project will

have a significant impact on public health or be materially injurious to surrounding properties of the environment as a whole.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-22, and **RECOMMENDS** that the City Council:

1. **ADOPT** a Negative Declaration for Application No. PEN16-0042 pursuant to the California Environmental Quality Act (CEQA) Guidelines; and
2. **APPROVE** Change of Zone Application No. PEN16-0042, based on the findings contained in this resolution.

APPROVED this 27th day of April, 2017.

Brian Lowell
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

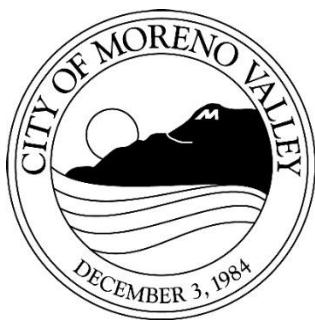
ATTACHED: Exhibit A: Zone Change Map

PLANNING COMMISSION RESOLUTION NO. 2017-22

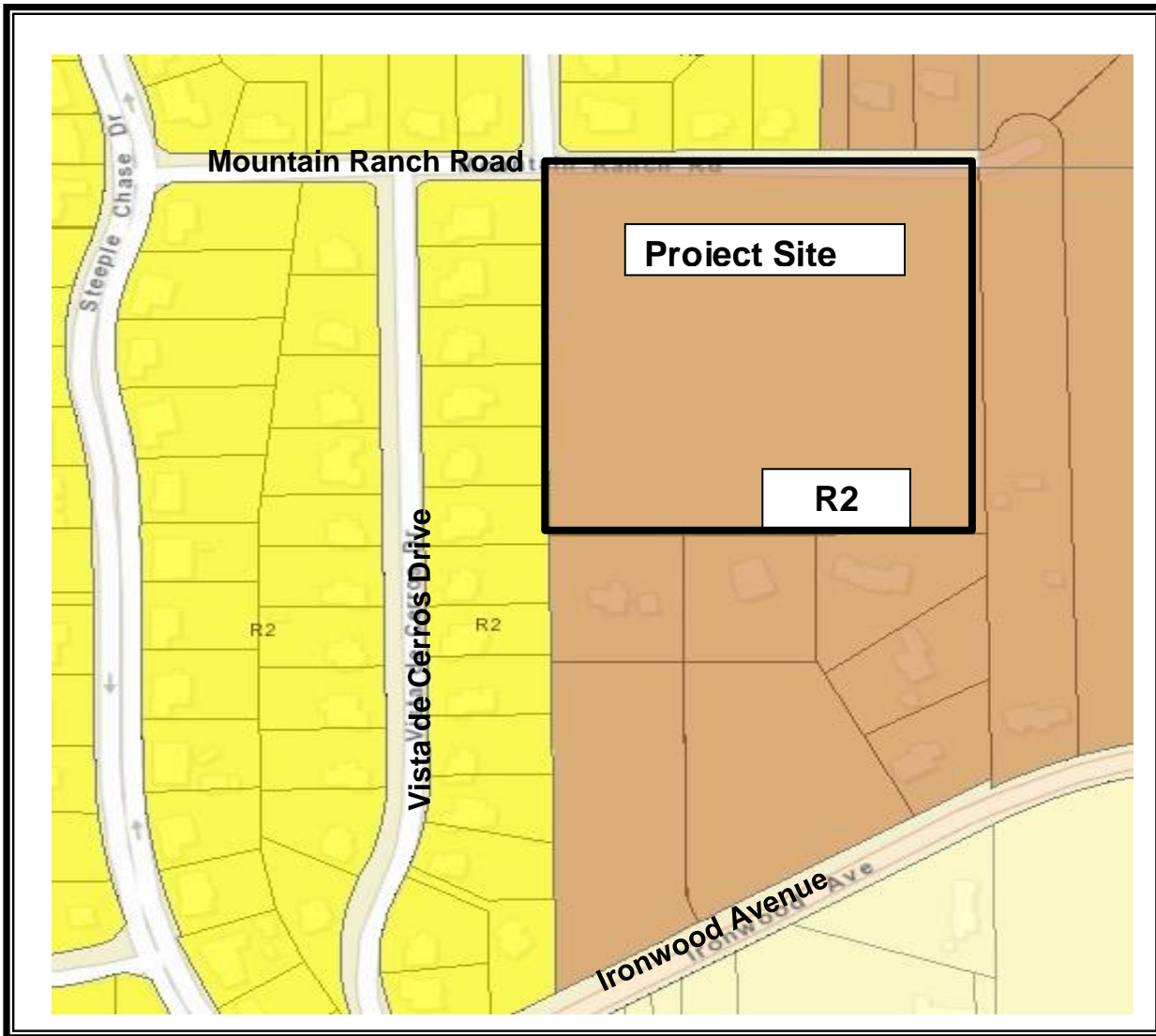
Page 4

Packet Pg. 796

Attachment: Resolution 2017-22 [Revision 1] (2609 : PEN16-0042 (PA16-0026) Zone Change)



ZONE CHANGE
Application No. PEN16-0042
APN: 474-250-003
Resolution No. 2017-22



Attachment: Exhibit A to Resolution 2017-22 (2609 : PEN16-0042 (PA16-0026) Zone Change)



NEGATIVE DECLARATION

PROJECT TITLE AND FILE NUMBERS: PEN16-0042 (PA16-0026) – Zone Change
PROJECT APPLICANT: Naji Doumit TELEPHONE NUMBER: (949) 813-8401
PROJECT LOCATION: South side of Mountain Ranch Road at Northshore Drive, northerly of Ironwood Avenue, Moreno Valley, Riverside County, CA
PROJECT DESCRIPTION: Zone Change from the existing zoning for the 10 acre project site from R1 (minimum lot size of 40,000 square feet) to R2 (minimum lot size of 20,000 square feet). The proposed land use change is consistent with the existing Residential 2 General Plan land use designation for the project site and the zoning of adjacent developed single family residential properties to the west and north.

FINDING

The City of Moreno Valley has reviewed the above project in accordance with the City of Moreno Valley's Guidelines for the Implementation of the California Environmental Quality Act, and has determined that an Environmental Impact Report need not be prepared because:

- The proposed project will not have a significant effect on the environment.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures described in the attached Initial Study and hereby made a part of this Mitigated Negative Declaration have been added to the project. The Final Conditions of Approval contain the final form and content of all mitigation measures.

This determination is based upon an Initial Study. The project file, including the Initial Study and related documents is available for review during normal business hours (7:30 a.m. to 5:30 p.m. Monday through Thursday, and 7:30 a.m. to 4:30 p.m. on Friday) at the City of Moreno Valley, Community Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California 92553, Telephone (951) 413 3206.

PREPARED BY: Jeff Bradshaw	DATE: April 4, 2017
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NOTICE

The public is invited to comment on the Negative Declaration. The appropriateness and adoption of the Negative Declaration is considered at the time of project approval in light of comments received.

DATE ADOPTED: _____ BY: _____

Attachment 3

Attachment: Mitigated Negative Declaration (2609 : PEN16-0042 (PA16-0026) Zone Change)



**INITIAL STUDY/
ENVIRONMENTAL CHECKLIST FORM
CITY OF MORENO VALLEY**

1. Project Title: Zone Change from R1 to R2
PEN16-0042 (PA16-0026) – Zone Change
2. Lead Agency Name and Address: City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553
3. Contact Person and Phone Number: Jeff Bradshaw, Associate Planner
(951) 413-3224
4. Project Location: South side of Mountain Ranch Road at Northshore Drive
5. Project Sponsor's Name and Address: Naji Doumit
22435 Alessandro Boulevard, Ste. #107
Moreno Beach, CA 92552
6. Existing General Plan Designation: Residential 2
7. Existing Zoning: Residential 1 (R1, maximum of one dwelling unit per acre)
8. Proposed Zoning: Residential 2 (R2, maximum of two dwelling units per acre)
9. Description of the Project:

The project proposes to change the existing zoning for 10 acres (Assessor's Parcel Number 474-250-003) from R1 (minimum lot size of 40,000 square feet) to R2 (minimum lot size of 20,000 square feet). The proposed zone change is consistent with the existing Residential 2 General Plan land use designation for the site. In addition, the proposed zone change is consistent with the existing R2 zoning of the adjacent developed single family residential properties to the west and north. The zone change will not result in direct physical impacts on the environment.

10. Surrounding Land Uses and Setting:

Land use in the project area is a mix of residential subdivisions, and custom homes in hillside and rural settings. The surrounding properties are primarily designated for single-family residential uses at the R2

density. The lands to the immediate south of the site to Ironwood Avenue, and east of the site for a distance of approximately 650 feet are also designated R2 in the General Plan with an R1 zoning designation. The hillside that rises to the northeast at the terminus of Mountain Ranch Road is designated for Hillside Residential uses.

The project site is bordered by Mountain Ranch Road on the north with established R2 subdivisions generally to the west and north. The area generally northeast of the site is characterized by custom hillside residential lots accessed by Mountain Ranch Road from Ironwood Avenue. Land to the east and south is characterized by established rural residential development on lots ranging from approximately 0.6 acre to 5 acres in area.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The City received requests for consultation from the following Native American tribes and consultation is complete:

- Agua Caliente Band of Cahuilla Indians;
- Pechanga Band of Luiseno Indians; and
- Soboba Band of Luiseno Indians.

13. Other public agencies whose approval is required:

None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below(■) would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

	Aesthetics		Greenhouse Gas Emissions		Population/Housing
	Agricultural Resources		Hazards & Hazardous Materials		Public Services
	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources		Land Use/Planning		Transportation/Traffic
	Cultural Resources		Mineral Resources		Utilities/Service Systems
	Geology/Soils		Noise		Mandatory Findings of Significance
	Tribal Cultural Resources				

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A NEGATIVE DECLARATION will be prepared.	■
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a “potential significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Signature _____ Date April 4, 2017

Jeff Bradshaw, Associate Planner _____ For _____

Printed Name

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Potentially Significant Unless Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analysis,” as described in (5) below, may be cross-referenced).
- 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:
 - (a) Earlier Analysis Used. Identify and state where they are available for review.
 - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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I. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista?			■	
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The Moreno Valley General Plan identifies scenic highways, panoramic viewsheds, and photographic viewing locations within the aesthetic resource element. The project site is located at the base of the hills that define the north edge of the City. The General Plan Conservation Element (Figure 7-2) recognizes a view corridor projected across this area, providing views of the upper slopes of the hills. In this context, the project site is an infill location within the developed landscape at the base of the hills. Limited views of the valley floor are enjoyed from the existing homes on the north side of Mountain Ranch Road. These views are interrupted by the on-site knoll and additional peaks in the area south of Ironwood Avenue. The vertical depth of the view is confined by the existing development to the south. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. However, future construction of homes, and landscaping, will create additional features that could be expected to have an effect on existing views. . In the context of the currently limited nature of views, the potential impact is considered less than significant.

It is expected that the indirect future impact from the development of one acre lots under the existing R1 zoning as compared with homes on one-half acre lots allowed by the R2 zoning would be negligible

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				■
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There are no state scenic highways in the vicinity of the site. The project area is visible from State Route 60, which is designated as a scenic route in the City of Moreno Valley General Plan. There are rock outcroppings and some mature trees on the site, but no known historic buildings on the site. The site has been previously disturbed through weed abatement. The proposed Zone Change from R1 to R2 will not substantially damage scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?			■	
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The project site is characterized by a knoll along the easterly portion of the site. Due to the nature of surrounding topography and development, this feature is only visible to residents and visitors in the immediate vicinity. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. The City's Municipal Code provides a framework that ensures that any new development would be designed and constructed in a manner that is compatible with surrounding land uses including architectural style, design, materials, and colors. Further, development of the site would need to comply with applicable General Plan policies. The potential indirect impact on visual character resulting from the construction of residences on one-half acre lots under the R2 designation as compared with development of one acre lot under the R1 would be negligible. The proposed Zone Change from R1 to R2 will not substantially degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			■	
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Future development of single family residences on the project site would introduce some additional new light sources into the area as the project site is currently vacant. Future development would include required street lighting and exterior wall mounted lights on the residences. All development is required to comply with the City's light standards as referenced in Municipal Code Section 9.08.100 including the shielding of lighting and restrictions on the intensity of exterior lighting which will reduce light and glare impacts to City accepted levels on surrounding properties. Changing the zone from R1 to R2 will not result in potential impacts related to substantial light or glare.

II. AGRICULTURE & FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project?

a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				■
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The site is not identified as Prime Farmland, Unique Farmland or Farmland of Statewide Importance on the official farmland maps prepared pursuant to the California Department of Conservation Farmland Mapping and Monitoring Program (Riverside County Important Farmland, published 2014). There are currently no agriculturally productive activities occurring within the project boundaries. There will be no impact to farmlands as the development of this project will not result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance.

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				■
The site is not currently in agricultural use, or under Williamson Act control. There is no existing surrounding agricultural use, or sites under Williamson Act contract within the City limits. The Municipal Code allows for agricultural uses such as crops in all zoning districts, therefore, the proposed project does not conflict with existing zoning for agricultural use, or impact sites under Williamson Act contract.				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				■
The project site is not zoned or designated on the City's General Plan for forest land, timberland, or timberland zoned Timberland Production. The City does not have any forest lands, or timberland as defined in the State Public Resources Code and Government Code within the City limits. Therefore, since the project will not result in impacts to forest land, timberland, or timberland zoned timberland production, no impacts would occur and no mitigation measures would be required.				
d) Result in the loss of forest land or conversion of forest land to non-forest use?				■
The project site is not forest land as defined by Public Resources Code section 1220(g). The project site does not involve the loss of forest land or the conversion of forest land to non-forest use. Therefore, since the project will not result in the loss of forest land or the conversion of forest land to non-forest use, no impacts would occur and no mitigation measures would be required.				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				■
There is no immediate surrounding or proposed agricultural use. The proposed project will not involve changes to the existing environment, which will result in the conversion of farmland to non-agricultural use, or conversion of forest land to non-forest land.				
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			■	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.			■	
(a and b) The Air Quality Management Plan (AQMP) for the South Coast Air Basin sets forth a comprehensive program that will lead the air basin into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP development projects is determined by demonstrating compliance with local land use plans and/or population projections. The proposed Zone Change from R1 to R2 is consistent with the existing Residential 2 General Plan land use designation and, on this basis, would not conflict with or obstruct implementation of the AQMP.				
Future development of single family residences will contribute emissions of criteria pollutants during both the construction and operation phases. Based upon the consistency of the proposed R2 zoning with the underlying Residential 2 General Plan land use designation, the potential impact of future development will not be greater than under the current zone. Future development will be limited in scale due to the physical constraints of the site (hilltop with rock outcroppings). Due to emissions control and reduction programs under the adopted AQMP, the proposed project does not present the potential to violate any air quality standard or contribute substantially to an existing or projected violation.				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			■	

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The South Coast Air Basin is in non-attainment status for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), and particulate matter (PM₁₀).

CEQA Section 21100 (e) addresses evaluation of cumulative effects, allowing the use of approved land use documents in a cumulative impact analysis. CEQA Guidelines Section 15064 (h)(3) further stipulates that for an impact involving a resource that is addressed by an approved plan or mitigation program, the lead agency may determine that a project's incremental contribution is not cumulatively considerable if the project complies with the adopted plan or program. In addressing cumulative effects for air quality, the AQMP is the most appropriate document to use because the AQMP sets forth a comprehensive program that will lead the air basin, including the project area, into compliance with all federal and state air quality standards. The AQMP compliance program includes control measures and related emission reduction estimates based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments.

Since the proposed Zone Change from R1 to R2 is consistent with the existing Residential 2 land use designation under the City's General Plan and the project would not generate significant pollutant levels on an individual basis, it is appropriate to conclude that the proposed project would not result in a cumulatively considerable increase in criteria pollutant emissions for which the basin is in non-attainment status.

d) Expose sensitive receptors to substantial pollutant concentrations?			■	
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Based upon the consistency of the proposed Zone Change to R2 with the underlying Residential 2 General Plan land use designation, the potential impact of future development under the proposed R2 zone is expected to be only slightly greater than what is currently permitted under the existing General Plan due to the constraints of topography and the existing knoll. Therefore, future residential development of the project site would not be considered a source of substantial pollutants and there are no sources of substantial pollutants in the project vicinity that would expose future residents to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people?				■
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The Change of Zone application will not result in direct physical impacts on the environment. Therefore, there are no objectionable odors associated with the project. With the Zone Change from R1 to R2, it is expected that the objectionable odors from construction related equipment would be similar to those that would be created if the site was developed under the existing R1 zone. The proposed residential project does not present the opportunity for creation of objectionable odors affecting a substantial number of people.

IV. BIOLOGICAL RESOURCES. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?			■	
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b) Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service?			■	
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(a and b) A biological resources survey consisting of a records search and site inspection was conducted for the project site by a qualified biologist, P & D Consultants on March 18, 2008 for a prior project. The biologist characterized the project site as disturbed by grading and ~~discing~~disking, with a level field in the west portion of the site and hilly terrain in the east portion of the site. Surveys also included off-site areas to be disturbed due to utility extensions. No sensitive or special status species were observed or detected in the course of the field survey. In light of observation of potentially suitable habitat for burrowing owl, a focused burrow survey was conducted in accordance with provisions of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). No owl burrows, potential owl burrows, direct observations of burrowing owls or signs of burrowing owls were observed in the course of the focused burrow survey. As required under the MSHCP, a requirement for pre-construction surveys to confirm status of the species on the site immediately prior to grading was recommended.

The Zone Change does not result in any direct physical impact on the environment. Therefore, no updated studies were required at this time for biological resources, since no development applications were submitted along with the current project. The site specific biological resources will be further studied with the proposal of a development on the site that would propose directly physical impacts on the environment. Regarding indirect impact of the Zone Change, the reduction in potential lots sizes from one acre to one-half acre would not be expected to result in any biological impacts than would otherwise occur if the site was developed under the R1 development. The proposed Zone Change from R1 to R2 is consistent with the existing Residential 2 land use designation under the City's General Plan. .

The project as proposed will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Department of Fish and Game or U. S. Fish and Wildlife Service.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				■
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The Change of Zone will not result in direct physical impacts on the environment. Based on staff's field review and prior studies of the site, there are no wetland resources on the site. Therefore, the development of the site under the R2 could not have impacts to wetland resources.

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				■
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There is no evidence that the site supports these habitat resources.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			■	
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The Change of Zone will have no physical impact on the environment, and could therefore not conflict with local policies or ordinances protecting biological resources. Regarding indirect impacts, the future development of one-half acre lots under the R2 zoning would not be expected to have impacts that differ from development of the same site under the R1 zoning, based on the anticipated grading of the site.

The site is removed from the hillsides and the San Jacinto Wildlife Preserve areas that are the focus of local biological resources preservation programs. The few pepper trees that are on the site will be replaced many times over by the street trees that will be required in accordance with City regulations, as monitored through established plan check and inspection procedures. Further tree plantings are also reasonably expected in conjunction with landscaping of future homes on the proposed lots.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				■
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The Change of Zone will have no physical impact on the environment, and could therefore with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat plan. There would be no potential indirect impact of the Change of Zone with regard to conflict with provisions of an adopted Habitat Conservation Plan, because, development of the project site will not conflict with the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) or MSHCP or any other known local, regional or state habitat conservation plans. In addition, the project is not located within one of the Multiple Species Habitat Conservation Plan (MSHCP) criteria areas, which are potential habitat preservation areas. The proposed project will also not

Future development of the project site will be conditioned to pay required SKR mitigation fees. Also, the City participates in the MSHCP, a comprehensive habitat conservation-planning program addressing multiple species' needs, including preservation of habitat and native vegetation in Western Riverside County. Future development of this site will also be subject to impact fees to support the implementation of the Multiple Species Habitat Conservation Plan as provided for by City ordinance. The proposed Zone Change from R1 to R2 will not conflict with provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES. Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				■
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b) Cause a substantial adverse change in the significance of an archaeological resources pursuant to Section 15064.5?				■
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(a and b) The project site is within an area that is identified as potentially sensitive for prehistoric archaeological resources (Reche Hills Complex as identified on General Plan EIR Figure 5.10-2). In accordance with General Plan EIR Mitigation Measure C1, a cultural resources survey consisting of a records search and site inspection was conducted by a qualified archaeologist (Michael Brandman Associates, March 18, 2008). No pre-historic, historic, or Native American sites or isolated finds were identified on the project site (including disturbance areas for associated utility improvements). Survey efforts also included an inquiry to the Native American Heritage Commission and direct notification to eleven tribal entities. No updated studies were prepared for cultural resources, since the proposed Zone Change from R1 to R2 is consistent with the existing Residential 2 land use designation under the City's General Plan and no development applications are included with the current project. The City received requests for consultation from the Agua Caliente Band of Cahuilla Indians, the Pechanga Band of Luiseno Indians, and the Soboba Band of Luiseno Indians. The City met in consultation and/or coordinated with each of the above Native American Tribes in compliance with Assembly bill 52 to complete the consultation process. The City recognized the stated concerns from the tribes with regards to the participation of tribal monitors during construction (grading) to mitigate potential impacts to inadvertent finds of cultural resources or

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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human remains. However, since the proposed project is a Zone Change from R1 to R2 and does not include a development application, the City has agreed that such mitigation would be implemented when development of the project site occurs.

) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				■
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The project site is not within an area identified as potentially sensitive for paleontological resources (General Plan EIR Figure 5.10-3).

d) Disturb any human remains, including those interred outside of dedicated cemeteries?				■
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No known human remains have been identified at the project site. Future development would be conditioned for compliance with State requirements to prevent the disturbance of any human remains.

VI. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				■
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The Zone Change is a policy change to the maximum residential density for the site. The application will not involve the construction of any structures, and therefore could not result in placement of structures within proximity to a known fault. According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. The project site is not within the delineated area on the current Alquist-Priolo Earthquake Fault Zone Map as issued by the State Geologist. There is no new information that would indicate the existence of a fault or fault tract in proximity of the site. Accordingly, there is no risk of ground rupture due to faulting at the proposed project site.

(ii) Strong seismic ground shaking?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in the exposure of structures to ground shaking. According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. The nearest fault is the San Jacinto fault system, which is located about 8 miles to the northeast. The San Andreas fault system is more than 25 miles from the site. The active Sierra Madre and San Gabriel fault zones lie roughly 35 and 40 miles respectively to the northwest of the site. The active Elsinore and Newport-Inglewood fault zones lie approximately 20 and 45 miles, respectively, to the southwest of the site. This faulting is not considered a significant constraint to development on the site with the use of current building codes. Ground-shaking intensity could be moderately-high during a 100-year interval earthquake. Foundation designs will be reviewed to ensure incorporation of appropriate engineering recommendations to mitigate any such seismicity. There is no new information that would indicate the existence of a fault on the site.

(iii) Seismic-related ground failure, including liquefaction?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in the exposure of structures to seismic related ground failure. According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. However, ground-shaking intensity could be moderately-high during a 100-year interval earthquake. Based on available resources and the City's General Plan, the potential for seismic related failure or liquefaction on the site is minimal based on the water table and soil conditions at the site.

(iv) Landslides?				■
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in the exposure of structures to ~~land slides~~landslides. The site is not near or adjacent to mountainside areas. Due to a lack of slopes within or nearby the project site seismically induced landslides are not anticipated to pose a danger to the project site. Development of the project will not result in impacts from landslides and no mitigation measures would be required.

(b) Result in substantial soil erosion or the loss of topsoil?			■	
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The project does not propose any development, however, future development of the project site will likely result in the reduction of erosion with the placement of buildings and landscaping on the site. During construction, there is the potential for less than significant impacts for short-term soil erosion from minimal excavation and grading. This would be addressed as part of standard construction, such as watering to reduce dust and sandbagging, if required, during raining periods.

(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			■	
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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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According to the City’s environmental information, the geologic unit or soil is not known to be unstable (Western Riverside Area Soil Survey – University of California Agricultural Experiment Station, 1971). The project does not propose any development, however, the potential for the impacts to future development of the project site resulting from a landslide, lateral spreading, subsidence, liquefaction or collapse is less than significant.

(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The proposal does not propose any development at this time. The site is not known to support expansive soils. The proposal does not propose any development, however, the potential for future development of the project site to create substantial risks to life or property is less than significant.

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			■	
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The project does not propose any development. However, future development of the project site will be served by the regional sewer system operated by Eastern Municipal Water District. The proposed project will not be introducing septic tanks or alternative water disposal systems.

VII. GREENHOUSE GAS EMISSIONS. Would this project?

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in generation of greenhouse gases. With regard to indirect impacts of the proposed application, considering the site constraints and the scope of the project, the development of the site under the R2 zoning is not be expected to result in potential impacts related to greenhouse gas emissions that would be greater than the greenhouse gas emission impacts that would occur with development of the same site under the R1 zoning. As an example, the potential extent of the grading ~~activities~~ activities that would be occur for development of the site under the existing R1 zoning and the proposed R2 zoning designations would be expected to be about the same considering the site constraints.

The proposed Zone Change to the R2 designation ~~beis~~ consistent with the project site’s Residential 2 General Plan Commercial land use designation, and is therefore consistent with the City’s adopted General Circulation Element and build out scenarios. Therefore, the City has chosen to rely on a qualitative analysis. To the extent possible based on scientific and factual data available, it has been determined that this project will not result in generating greenhouse gas emissions that will either directly or indirectly have a significant impact on the environment.

Global climate change is caused by greenhouse gas (GHG) emissions throughout the world. Mitigating global climate change will require worldwide solutions. Greenhouse gases are gases emitted from the earth’s surface that absorb infrared radiation in the atmosphere. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere, and therefore increase evaporation rates and temperatures on the Earth’s surface. The City of Moreno Valley has adopted a Climate Action Strategy. However, at this time, there are no widely accepted thresholds of significance for determining the impact of GHG emissions from an individual project, or from a cumulative standpoint. As provided for in the CEQA Guidelines (Section 15064.4), it is necessary for the lead agency to make a good-faith effort in considering GHG emissions on a project specific basis.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			■	
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On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related Greenhouse Gas Analysis. The project does not propose any development, however, future development of the project site will be required to be consistent with this strategy or any other applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project?

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				■
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b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				■
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c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				■
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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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(a through c) The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore there would be no impacts related to hazardous emissions. The future residential development of the site will not be within one-quarter mile of the nearest school (Palm Middle School) to the southwest. No schools are planned within one-quarter mile of the site.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?

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The project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

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The nearest airport is the March Air Reserve Base located approximately 4 miles to the southwest. The project site is not located within the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. The site is not within an airport land use plan or within two miles of a public airport or a public use airport.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

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There are no private airstrips within the City of Moreno Valley.

g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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The Zone Change will modify the existing zoning of the site from R1 to R2 to be consistent with the existing R2 General Plan designation. The proposed Zone Change would not have any direct effect on an adopted emergency response plan, or emergency evacuation plan. The City's emergency plans are also consistent with the General Plan. The project does not propose any development, however, future development of the project site will be required to comply with City requirements for circulation and required fire access to allow for ingress of emergency vehicles and egress of passenger vehicles. Therefore, the proposed project would not be in conflict in any way with the emergency response or emergency evacuation plans.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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The Zone Change does not propose any development. The project is within a Very High Fire Hazard Severity Zone as designated under the fire hazard mapping program by the California Department of Forestry and Fire Prevention. . However, future development of the project site will be required to comply with all City and State regulations related to construction within Very High Fire Hazard Severity Zone. As designed and conditioned, the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

IX. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements?

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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in the potential for violation of any water quality standards or water discharge requirements. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Future residential development of the project site, including both project construction and operation are subject to established regulatory programs directed at avoiding violations of water quality standards and waste discharge requirements. Project construction activities are subject to implementation of known best management practices (BMPs) as detailed in the required Storm Water Pollution Prevention Plan (SWPPP). The SWPPP details the applicable measures, the location and timing of application, and responsibility for monitoring and maintenance. Established City programs for grading permit issuance and construction inspection ensure that the SWPPP BMPs are implemented during construction and that erosion impacts during project construction are less than significant.

For the operation phase, compliance with water quality standards would be addressed through review and approval of a Water Quality Management Plan (WQMP) to determine water quality features and BMP's to mitigate probable pollutants. Established City programs for plan check, permit issuance and construction inspection ensure that water quality features would be implemented in accordance with the approved design. Established City programs provide for ongoing maintenance of water quality features.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that could deplete groundwater supplies. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report. The Eastern Municipal Water District (EMWD) would provide the proposed project with potable water. EMWD sources of supply consist of a combination of local groundwater resources and imported surface water. Existing water supplies are adequate to serve the proposed project. The project does not propose any development. Future development of the project site will likely cover a majority of the site with impervious surfaces, however, the landscaped areas would still provide a means for groundwater recharge. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that could alter the existing drainage pattern of the site. The drainage pattern for development under the proposed R2 designation is expected to be the same as under development under the existing R1 designation. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report. There is no streambed or river on the project site, so the project will not cause a change in the existing on-site drainage pattern that would result in substantial erosion or siltation on- or off-site. The project does not propose any development, however, future development of the project site will be required to satisfy City, State and Federal requirements related to storm water conveyance. Impacts would be less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on- or off site?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that could alter the existing drainage pattern of the site. The drainage pattern for development under the proposed R2 designation is expected to be the same as under development under the existing R1 designation. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report. There is no streambed or river on the project site. The project does not propose any development, however, future development of the project site will be required to satisfy City, State and Federal requirements to collect site runoff and moderate discharges into the downstream storm drain system. Impacts would be less than significant.

e) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that could create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, or that could provide substantial additional sources of polluted runoff. The drainage pattern for development under the proposed R2 designation is expected to be similar to development under the existing R1 designation. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report. The project does not propose any development, however, as with any urban project, future development of the project site will be required to comply with all City, State and Federal requirements related to water quality treatment. Subject to compliance with all applicable storm water discharge permits, impacts would be less than significant.

f) Otherwise substantially degrade water quality?			■	
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The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that could substantially degrade water quality. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report.

g) Place housing within a 100-year floodplain, as mapped on a federal Flood				■
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Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
The project site is not within the 100-year floodplain (Flood Insurance Rate Map Panel 065074 0010B).				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				■
The project site is not within the 100-year floodplain (Flood Insurance Rate Map Panel 065074 0010B).				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				■
The proposed project site is located within Federal Emergency Management Agency Zone "X" area outside of the 100-year flood hazard area. This is an area determined to be outside of the 0.2% annual chance flood plain. The project site is outside of the delineated dam inundation area for Perris Dam at Lake Perris Reservoir and will not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.				
j) Inundation by seiche, tsunami, or mudflow?				■
The project site is not identified in the General Plan as a location subject to seiche, or mudflow. The project is outside of the delineated dam inundation area for Perris Dam at Lake Perris Reservoir. There would be no impacts resulting from inundation by seiche, tsunami, or mudflow.				
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				■
The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that would physically divide an established community. The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Therefore, the change to the R2 zoning designation any potential impacts of development at two dwelling units per acre for the site would have been fully considered in the City's existing General Plan and supporting Environmental Impact Report. The proposed Zone Change from R1 to R2 will establish residential uses of a type and intensity consistent with the existing Residential 2 General Plan land use designation and proposed zoning. The location and nature of the proposed project do not present the potential to divide an established community.				
b) Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				■
The proposed Zone Change from R1 to R2 is consistent with the existing General Plan land use designation of R2. The project will not conflict with the General Plan or other City land use policy.				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				■
The Zone Change is a policy change to the maximum residential density of the site. The Zone Change will not involve the construction of any structures, and therefore could not result in any direct impacts that would physically divide an established community. The project site is not located within one of the Multiple Species Habitat Conservation Plan (MSHCP) criteria areas, which are potential habitat preservation areas. The proposed project will not conflict with the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) or MSHCP or any other known local, regional or state habitat conservation plans. Future development of the project site will be conditioned to pay required SKR mitigation fees. Also, the City participates in the MSHCP, a comprehensive habitat conservation-planning program addressing multiple species' needs, including preservation of habitat and native vegetation in Western Riverside County. Future development of this site will also be subject to impact fees to support the implementation of the Multiple Species Habitat Conservation Plan as provided for by City ordinance. The proposed Zone Change from R1 to R2 will not conflict with provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.				
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				■
(a and b) There are no active mines or mineral recovery programs are currently active within the project site or the surrounding area. Consequently, the development of the project site would not conflict with a mineral recovery plan as adopted by the General Plan. No significant impacts would occur.				
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards			■	

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			■	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			■	
d) A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			■	
(a through d) The project does not propose any development, however, the nature of future single-family residential development on the project site does not present the potential for substantial permanent increases in noise levels or groundborne vibration. During construction, there will be additional noise from construction activities. Construction activity causing noise that constitutes a "nuisance" is prohibited between the hours of 7:00 AM and 7:00 PM Monday through Friday, excluding holidays and from 8:00 AM to 4:00 PM on Saturday (City Municipal Code Section 11.80.040.E). For the operation phase, there are no sources of noise in the project area that would expose future residents to excessive noise levels.				
e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				■
The nearest airport is the March Air Reserve Base located approximately 4 miles to the southwest. The project site is not located within the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. The site is not within an airport land use plan or within two miles of a public airport or a public use airport. The project will not expose people residing or working in the project area to excessive noise levels				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				■
There is no private airstrip within the vicinity of the site, or within the City of Moreno Valley.				
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			■	
The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential General Plan land use designation. The project will not induce substantial growth in the area. Impacts would less than significant.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				■
(b and c) This property is currently vacant, and no housing is currently located there. No housing will be displaced by this project. The project will not displace any residents.				
XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?			■	
b) Police protection?			■	
c) Schools?			■	
d) Parks?			■	
e) Other public facilities?			■	
(a through e) The various city departments and responsible outside agencies have participated in the project review process and have determined that the proposed project will not result in substantial adverse physical impacts associated with the provision of public services for the site. The project does not propose any development; however, future residential development of the project site will be required to participate in the payment of City Development Impact Fees and Moreno Valley Unified School District (MVUSD) fees to address individual and cumulative impacts of development upon public services. Established City and MVUSD plan check and permit issuance procedures ensure payment of fees prior to issuance of building permits.				
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the				■

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ■

(a and b) The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. Future residential development on the project has the potential to increase the use of parks or other recreational facilities, however, future impacts on parks due to slightly increased density are anticipated to be minimal. Consistent with all development in the City, future residential development on the project site will be subject to development impact fees, which will address any potential impact to recreational facilities.

XVI. TRANSPORTATION/TRAFFIC. Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? ■

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? ■

(a and b) The proposed Zone Change from R1 to R2 is consistent with the anticipated type and density of development under the project's existing Residential 2 General Plan land use designation. A Trip Generation Evaluation was prepared for the project by Urban Crossroads on February 24, 2017. The currently approved zoning is anticipated to generate a net total of approximately 95 trip-ends per day with 8 AM and 10 PM peak hour trips. Development under the proposed Zone Change to R2 is anticipated to generate 95 more trip-ends per day with 7 more AM peak hour trips and 10 more PM peak hour trips as compared to the currently approved zoning. However, no additional analysis was required based on the City's Traffic Impact Analysis Preparation Guide (2007), since future development of the project site is anticipated to generate fewer than 50 peak hour trips. Additionally, single family residential tracts of less than 100 lots are typically exempt from Traffic Analysis requirements.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? ■

The proposed project would have no direct or indirect effect on air traffic patterns.

d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)? ■

The proposed project will not increase hazards to a design feature or incompatible uses.

e) Result in inadequate emergency access? ■

The project does not propose any development, however, future residential development of the project site will be required to meet the specifications of the City Engineer and Traffic Engineer, the Fire Prevention Bureau and the General Plan.

f) Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? ■

There is no conflict with adopted policies or programs supporting public transit.

XVII. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? ■

The Project Site does not include any historical resources, and impacts related to historic resources would not occur.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.? ■

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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The City received requests for consultation from the Agua Caliente Band of Cahuilla Indians, the Pechanga Band of Luiseno Indians, and the Soboba Band of Luiseno Indians. The City met in consultation and/or coordinated with each of the above Native American Tribes in compliance with Assembly bill 52 to complete the consultation process. The City recognized the stated concerns from the tribes with regards to the participation of tribal monitors during construction (grading) to mitigate potential impacts to inadvertent finds of cultural resources or human remains. However, since the proposed project is a Zone Change from R1 to R2 and does not include a development application, the City has agreed that such mitigation would be implemented when development of the project site occurs.

XVIII. UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			■	
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b) Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			■	
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(a and b) The proposed Zone Change from R1 to R2 is consistent with the project’s existing Residential 2 General Plan land use designation. Future residential development of the project site will be required to comply with the “Water Quality Management Plan for the Santa Ana Region of Riverside County” dated October 22, 2012 and approved by the Santa Ana Regional Water Quality Control Board (Guidance Document). Therefore, this project will not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. The Eastern Municipal Water District (EMWD) is the sanitary district provider for the project. The project will not exceed wastewater treatment capacity of the Moreno Water Reclamation Facility.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			■	
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The proposed Zone Change from R1 to R2 is consistent with the project’s existing Residential 2 General Plan land use designation. Riverside County Flood Control District (RCFCD) provided a letter dated June 20, 2016, indicating that the project would not be impacted by District Master Drainage Plan facilities and that no other facilities of regional interest are proposes for this area. The proposed project will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				■
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The water purveyor, Eastern Municipal Water District (EMWD), prepared an Urban Water Management Plan in 2010 demonstrating that it has or will have sufficient water supplies available to serve urban development within the City of Moreno Valley. EMWD’s plan was based on the City’s General Plan Land Use Element. The proposed Zone Change from R1 to R2 is consistent with the project’s existing Residential 2 General Plan land use designation. Therefore, sufficient water supplies exist to support the proposed project.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?				■
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The wastewater treatment provider is EMWD. The proposed Zone Change from R1 to R2 is consistent with the project’s existing Residential 2 General Plan land use designation. The current wastewater treatment facility has adequate capacity to serve projects within Moreno Valley that are consistent with the General Plan and EMWD has plans for major expansions of the Moreno Water Reclamation Facility to serve future needs. Source: EIR for the 2006 General Plan Update.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?				■
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Waste Management provides waste hauling service to the City of Moreno Valley. The project does not propose any development, however, future residential development of the project site will be served by a landfill in the Badlands with sufficient permitted capacity to accommodate the project’s solid waste disposal needs. Source: EIR for the 2006 General Plan Update.

g) Comply with federal, state, and local statues and regulations related to solid waste?				■
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City policies require compliance with State and Federal regulations regarding solid waste. The project does not propose any development, however, future residential development of the project site will be required to comply with the current policies regarding solid waste. (General Plan Objective 7.8 and Municipal Code Section 6.02)

XIX. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a			■	
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Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?				
<p>The proposed Zone Change from R1 to R2 is consistent with the project site's existing Residential 2 General Plan land use designation. There are no streambeds or riparian habitat within the project site and the project site does not support sensitive environmental resources that present the potential to substantially degrade the environment. The nature and scale of the proposed project do not present the potential to substantially degrade the environmental setting for existing development in the project vicinity. The project is consistent with provisions of the Western Riverside County Multiple Species Habitat Conservation Plan and the Stephens' Kangaroo Rat Habitat Conservation Plan. The project site does not contain important archaeological or historical resources. The analysis in this Initial Study demonstrates that project and cumulative impacts would be less than significant.</p>				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			■	
<p>The proposed Zone Change from R1 to R2 would result in a scale at a density that is consistent with the project sites' existing Residential 2 General Plan land use designation. The proposed project will not disturb sensitive resources, will not exceed the capacity of service systems, and is consistent with applicable local, regional and State environmental programs and regulations. The project will not create any impacts that would be considered cumulatively considerable when viewed in connection with existing land uses, other recently approved projects, and existing land use designations. The analysis in this Initial Study demonstrates that project and cumulative impacts would be less than significant.</p>				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			■	
<p>The proposed Zone Change from R1 to R2 is consistent with the project sites' existing Residential 2 General Plan land use designation. The proposed project does not present the potential for substantial adverse effects on human beings.</p>				

List of Key Documents and Resources:

- City of Moreno Valley General Plan, adopted by City Council on July 11, 2006
- City of Moreno Valley Municipal Code, adopted by City Council in 1997
- Trip Generation Evaluation prepared by Urban Crossroads, dated February 24, 2017
- Riverside County Integrated Project Long Report, Riverside County Transportation and Land Management Agency, April 15, 2016
- Western Riverside Area Soil Survey – University of California Agricultural Experiment Station, 1971
- Urban Water Management Plan, Eastern Municipal Water District, 2010
- State Important Farmland Map, 2014, <http://maps.conservation.ca.gov/ciff/ciff.html>
- Air Quality Management Plan (AQMP), South Coast Air Quality Management Board, 2012
- Cultural Resources Inventory, Archeological Research Unit, University of California, Riverside), October 1987
- Cultural Resource Study prepared by Helix Environmental Planning, dated April 13, 2016
- March Air Reserve Base /Inland Port Airport Land Use Compatibility Plan, Riverside County Airport Land Use Commission, adopted November 13, 2014
- Flood Insurance Rate Map, Federal Emergency Management Agency, Map Number 065074 0010B, August 28, 2008
- State Wildland Fires Map
- Biological Resources Survey prepared by P&D Consultants, dated March 18, 2008
- Cultural Resources Survey prepared by Michael Brandman Associates, dated March 28, 2008

**The above documents and studies are incorporated by reference and available in the case file for Expanded Initial Study PEN16-0042 and the Community Development Department – Planning Division or Public Works Department – Land Development Division.

Attachment: Initial Study Checklist (2609 : PEN16-0042 (PA16-0026) Zone Change)

Project Site Photographs



Viewing south from Mountain Ranch Road

Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Project Site Photographs



Viewing east from Mountain Ranch Road

Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Project Site Photographs



Viewing southeast from Mountain Ranch Road

Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Project Site Photographs



Viewing south from Mountain Ranch Road

Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Project Site Photographs



Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Viewing southwest from Mountain Ranch Road

Project Site Photographs



Attachment: Project Site Photographs (2609 : PEN16-0042 (PA16-0026) Zone Change)

Viewing east from Mountain Ranch Road