PLANNING COMMISSION
Special Meeting

Agenda

Thursday, December 21, 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 - Oct 26, 2017 7:00 PM

Planning Commission - Regular Meeting - Nov 9, 2017 7:00 PM

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

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

NON-PUBLIC HEARING ITEMS

PUBLIC HEARING ITEMS

1. Case: PEN16-0107 Plot Plan

   Applicant: Gary Wang & Associates

   Owner: Yum Yum Donut Shop Inc.

   Representative: Grachel Cornelio of Gary Wang & Associates

   Location: Northwest corner of Alessandro Boulevard and Day Street

   Case Planner: Gabriel Diaz

   Council District: 1

   Proposal: Plot Plan for a proposed 4,236 square foot donut shop/convenience store

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017- 43, and thereby:

1. **CERTIFY** that the proposed Plot Plan is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 32 Categorical Exemption, CEQA Guidelines, Section 15332 (In-Fill Development); and

2. **APPROVE** Plot Plan PEN16-0107 based on the findings contained in Planning Commission Resolution 2017- 43, subject to the conditions of approval included as Exhibit A of the Resolution.

2. Case: PEN16-0113 Plot Plan

   Applicant: Alisam Moreno, LLC

   Owner: SH-60 at Heacock Street, LLC

   Representative: Bijan Shahmoradi

   Location: North side of Sunnymead Boulevard, west of Heacock

	Street, south of State Highway 60
Case Planner:	Gabriel Diaz
Council District:	1
Proposal:	Plot Plan for a new 5,430 square foot automated car wash facility

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-44, and thereby:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Plot Plan PEN16-0113 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis; attached hereto as Exhibit A; and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Plot Plan PEN16-0113, attached hereto as Exhibit B.

B. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-45, and thereby:

1. **APPROVE** Plot Plan PEN16-0113 based on the findings contained in this resolution, and subject to the conditions of approval included as Exhibit A.

OTHER COMMISSION BUSINESS

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

ADJOURNMENT

Planning Commission Regular Meeting, January 25, 2018 at 7:00 P.M., City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

CITY OF MORENO VALLEY PLANNING COMMISSION
REGULAR MEETING
CITY HALL COUNCIL CHAMBER – 14177 FREDERICK STREET

Thursday, October 26, 2017 at 7:00 PM

CALL TO ORDER

CHAIR BARNES – Good evening ladies and gentlemen. I would like to call to order this regular-scheduled meeting of the Planning Commission to order. It is Thursday, October 26, 2017, and the time is 7:12 PM. Ashley, could we have roll call please?

ROLL CALL

Commissioners Present:
Commissioner Lowell
Commissioner Baker
Commissioner Sims
Vice Chair Korzec
Chair Barnes

Staff Present:
Rick Sandzimier, Planning Official
Ashley Aparicio, Recording Secretary/Administrative Assistant
Jeff Bradshaw, Associate Planner
Michael Lloyd, Traffic Engineer
Paul Early, Assistant City Attorney
Claudia Manrique, Associate Planner

Speakers:
Rafael Brugueras

PLEDGE OF ALLEGIANCE

CHAIR BARNES – The next item on the Agenda is the Pledge of Allegiance. Could you all stand and face the flag?

APPROVAL OF THE AGENDA

Approval of PC Agenda of October 26, 2017

CHAIR BARNES – Thank you. Next item is the approval of the Agenda for October 26, 2017. That's probably not right.

COMMISSIONER SIMS – I'll make a motion to approve the Agenda.

COMMISSIONER BAKER – And I'll second.

CHAIR BARNES – Yeah, what date are we approving?

COMMISSIONER SIMS – Well approval of today's Agenda.

COMMISSIONER BAKER – Not the Minutes.

CHAIR BARNES – Oh, the Agenda, duh.

COMMISSIONER SIMS – You're doing it.

CHAIR BARNES – Once again, the Chair has fallen down.

COMMISSIONER BAKER – It's okay. Move on.

CHAIR BARNES – My apologies. We had a motion from Commissioner Sims.

COMMISSIONER LOWELL – I'll second.

CHAIR BARNES – Two seconds, Commissioners Baker and Lowell.

COMMISSIONER LOWELL – Come on, Patricia. Get in on it.

VICE CHAIR KORZEC – I'll third it, alright, fine.

PLANNING OFFICIAL RICK SANDZIMIER – We're going to try this system that we explained to you at the beginning, so the motion and the second.

CHAIR BARNES – Alright.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – The motion was…

PLANNING OFFICIAL RICK SANDZIMIER – From Commissioner Sims.

CHAIR BARNES – Commissioner Sims made a motion.

PLANNING OFFICIAL RICK SANDZIMIER – Seconded by Lowell.

COMMISSIONER LOWELL – So the Chair no longer runs the vote button?

CHAIR BARNES – No.

PLANNING OFFICIAL RICK SANDZIMIER – Yeah, we're adopting to the City Clerk's….

CHAIR BARNES – There's a new sheriff in town, so please vote. So, all votes have been cast. The…end the vote.

COMMISSIONER LOWELL – It's a learning curve.

CHAIR BARNES – The motion carries 5-0.

Opposed – 0

Motion carries 5 – 0

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chair, just, if I may…..

CHAIR BARNES – Yes.

PLANNING OFFICIAL RICK SANDZIMIER – Just for the record, since we are live on TV and some people may be observing us, I do want to mention then, for the rest of the people here and Commissioner Lowell has just arrived, we are trying to adopt the same process that the City Clerk's Office is using with the recording secretary, so if we go through a couple of little glitches this evening, I just want to apologize up front. I also want to take a second just to introduce Ashley Aparicio. She is our new recording secretary and administrative assistant in our Planning Division. Thank you.

CHAIR BARNES – Well welcome, Ashley, and thank you very much for your help this evening.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – You're welcome.

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and all will be enacted by one rollcall 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 – August 24, 2017 at 7:00 PM

CHAIR BARNES – The next item on the Agenda is the Consent Calendar. The only item being the approval of the Minutes from the meeting of August 24, 2017.

COMMISSIONER BAKER – I'll make a motion.

VICE CHAIR KORZEC – I'll second.

CHAIR BARNES – A motion from Commissioner Baker. A second from Commissioner Korzec.

COMMISSIONER LOWELL – I was not present at that meeting, so I will be abstaining.

CHAIR BARNES – And Commissioner Lowell will not be voting because he was not in attendance, so please vote. The motion carries 4-0 with one abstention.

Opposed – 0

Motion carries 4 – 0 – 1 with one abstention

PUBLIC COMMENTS PROCEDURE

Any person wishing to address the Commission on any matter, either under 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 the Chairperson of the Commission and not to other members of the Commission, the applicant, the Staff, or the audience. 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 their request to Guy Pegan, ADA Coordinator, at (951) 413-3120 at least 72 hours prior to the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

CHAIR BARNES – Moving on. The next item on the Agenda is the Public Comments portion of the meeting.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – We do have one.

CHAIR BARNES – We have one speaker. If you could call him forward please.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Rafael Brugueras. I apologize.

CHAIR BARNES – Brugueras. You'll learn to pronounce it because he will…..

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Thank you.

CHAIR BARNES – Speak on occasion.

SPEAKER RAFAEL BRUGUERAS – Welcome aboard, Ashley.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Thank you.

SPEAKER RAFAEL BRUGUERAS – Chair, Commissioners, Staff, and guests, I'm the only resident here tonight. I'm grateful to be back in the chamber again from Tuesday because that was an exciting meeting. One out of the two got passed and that is going to be pertaining to this Planning Commission. It is a shame that we couldn't get the ban extended because that would've helped the staff to have a little more time to make sure everything that they are going to be doing with Allen Brock, Rick Sandzimier, to make sure that when you get a project to be built in this city or an entrepreneur to bring a business to sell marijuana you'll be prepared. So I'm hoping that, as the months we wait for this bill to come out and to get approved, that somehow you'll be ready and trained in this area to understand what some of these entrepreneurs and developers want from us because it could harm the city. It could also help the city. It was a good fight Tuesday. I learned a lot. I learned that pride can get in the way also. I'm hoping that it never happens to this government. This is one of the governments that I fought for when I was talking on Tuesday. This is a very important government. Each one of you plays a great role in our city in all parts, not just one district but all four districts. That includes the whole city, all 210,000 of us.

You're very important to us and the Staff here is very important to us. So prepare your hearts and your minds as things come forward. I don't know if it's going to be in the next month or in the New Year, but we as a city must be ready with the new laws, the new rules, and how to distribute and allow the sales of marijuana to flow through our city. Let's think about what we want to do in the future. Thank you so much, and I am thankful that Brian made it. I'm glad when I see five of you up here. It's a good thing. Thank you.

CHAIR BARNES – Thank you, Mr. Brugueras. No other speakers?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – No other speakers, Sir.

CHAIR BARNES – Thank you. Next on the Agenda, Non-Public Hearing Items. We have none, right Rick?

PLANNING OFFICIAL RICK SANDZIMIER – We have none.

NON-PUBLIC HEARING ITEMS

None

CHAIR BARNES – And Public Hearing Items: Case 1, PEN16-0050, an application from MACJONES Holdings, Inc. Do we have a Staff Report?

PUBLIC HEARING ITEMS

1. Case:	PEN16-0050 (PA16-0009)
Applicant:	MACJONES Holdings, Inc.
Owner:	MACJONES Holdings, Inc.
Representative:	Thienes Engineering, Inc.
Location:	South side of Cottonwood Avenue at Lakeport Drive
Case Planner:	Jeff Bradshaw
Council District:	3

Proposal:	Proposed Tentative Tract Map to subdivide 10 acres of vacant RA-2 zoned land into 16 single-family residential lots, and three lettered lots for water quality treatment facilities.

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-34 and thereby:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Tentative Tract Map 37060 (PEN16-0050) on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis, attached hereto as Exhibit A and;

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Tentative Tract Map 37060 (PEN16-0050), attached hereto as Exhibit B.

B. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-35 and thereby:

1. **APPROVE** Tentative Tract Map 37060 (PEN16-0050) based on the findings contained in this Resolution, and subject to the Conditions of Approval included as Exhibit A.

PLANNING OFFICIAL RICK SANDZIMIER – We do. Associate Planner, Jeff Bradshaw will be giving your this presentation.

ASSOCIATE PLANNER JEFF BRADSHAW – Good evening, Chair Barnes, and Members of the Planning Commission. As you introduced, Chair Barnes, the Applicant, MACJONES, has submitted a subdivision application to the City for approval of Tentative Tract Map 37060. This subdivision proposes to develop 16 lots on a 10-acre site that is located on the south side of Cottonwood Avenue and approximately 700 feet east of LaSalle. The site is currently vacant. It has been maintained in recent history through weed abatement and is surrounded by comparable types of development. The land to the west has been developed with similar half-acre lots in the RA-2 Zone. The project site is zoned RA-2. The

land to the east, in a similar fashion, has either been subdivided or developed with half-acre home sites and the properties to the north and south, as you can see in the exhibit, have been developed with tract homes in the R5 Zone. The Applicant is asking the City to support a subdivision here that is consistent with the RA-2 Zone. The 16 lots that are being proposed are all at least 20,000 square feet in size, which is consistent with that zone. Again, surrounding properties have been developed or subdivided with comparable lots and so the proposal is consistent with the General Plan, the zoning for the site, and with existing or established development for that area. Staff worked in the preparation of a Mitigated Negative Declaration for the project and through the completion of an initial study we determined that, with mitigation, this project would not result in any significant environmental impacts. A Mitigated Monitoring Program was also prepared for the project to ensure implementation of those Mitigation Measures. The project…..excuse me…..notice for the project was completed by our City Standard with a publication in the newspaper, notifying the preparation of the Mitigated Negative Declaration. The site was posted 10 days in advance of the hearing, and notices were sent out to property owners within 300 feet of the site as well. As of tonight, I have received only one phone call in response to those noticing efforts. It was a property owner that lives in a home immediately to the west. His property would back to this development. He stated he was in support of the project and just had questions about the availability of sewer service to that area. With that, Staff would….Staff's recommendation to the Planning Commission would be to certify the environmental documentation that has been prepared for the project and to approve the Tract Map as conditioned and as presented to you this evening. That concludes my report. I'd be happy to answer any questions that you might have.

CHAIR BARNES – Thank you, Jeff. Would the Commissioners like to ask any questions? Would the Applicant like to make a statement?

COMMISSIONER SIMS – Sorry. I do have my, the red light on. So lots C and D are the water quality lots that are small detention basins, I assume?

ASSOCIATE PLANNER JEFF BRADSHAW – Yes, in this case, a little bit unique proposal for the water quality treatment. Rather than a single basin, there are three water quality treatment facilities proposed. There is a linear treatment facility on lot 1 along the street frontage, and then lots 12 and 13 both have water treatment facilities in lettered lots on both those sites.

COMMISSIONER SIMS – And those lettered lots, they are maintained by the City or is that an HOA or how is that taken care of?

ASSOCIATE PLANNER JEFF BRADSHAW – They would be maintained by the City but with an HOA required of the project, like with other subdivisions as a

backup or support to that process with the City being compensated through that HOA.

COMMISSIONER SIMS – Thank you.

CHAIR BARNES – Any other questions? Would the Applicant like to make a presentation or a statement?

APPLICANT DAN WEBB – Hello, my name is Dan Webb from MACJONES. I just want to thank everybody for coming, and I want to thank the Planning Department for working well with my team, and I really have nothing else to add. I think it's a really nice project for the area, and it fits in well with the zoning and fits in well with the neighbors, and I think it should go well.

CHAIR BARNES – Thank you.

COMMISSIONER LOWELL – I have a question for you. The last Tentative Map expired. What is your timeframe for this project? Do you envision sitting on it for a few years or are you ready to dig a shovel of dirt tomorrow?

APPLICANT DAN WEBB – It depends on the market. It's really close right now in terms of, you know, since you're requiring me to have such large acreage, it puts it up into a pretty…..it's, you know, I was lucky to buy the land at a pretty attractive price and that benefit can be passed through to the City of Moreno Valley because I could afford to keep these big lots where a lot of other people can't. The market is like right there, and so my goal is to do it in the next year or two, but I am just really identifying the comps right now and seeing if I can make some money on it.

COMMISSIONER LOWELL – Thank you.

CHAIR BARNES – Any other questions. If not, while you think about it, I have a couple of questions. On one of the previous meetings we had discussed, I thought, adding the number of extensions to the condition that addresses the expiration date of the map.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chair, are you….I apologize for maybe interrupting, but are you going to be talking about the project and deliberating the project or would you like to conduct the Public Hearing first because it does require a Public Hearing.

CHAIR BARNES – Yeah, thank you. Don't we normally ask questions of the Staff?

PLANNING OFFICIAL RICK SANDZIMIER – That's why I was trying to get clarification there. If you were going to be asking Staff questions or if you're

getting into deliberations about the Conditions of Approval and the project as a whole but, if it is still questions for Staff, that's appropriate, I guess.

CHAIR BARNES – Well, they are questions regarding the conditions, but I wouldn't call them deliberation. It's just clarifications.

PLANNING OFFICIAL RICK SANDZIMIER – Okay.

CHAIR BARNES – Is that appropriate?

PLANNING OFFICIAL RICK SANDZIMIER – That's fine.

CHAIR BARNES – Okay, alright. Well, how many extensions would a project like this be entitled to?

ASSOCIATE PLANNER JEFF BRADSHAW – The total map life under the Map Act would be eight years, and so there would be an opportunity under separate applications to extend the life for a total of five and, by our Code, it would be three years at a time. So the next extension would be three and then two.

CHAIR BARNES – Okay, so two more extensions, one 3-year and one 2-year. Okay.

ASSOCIATE PLANNER JEFF BRADSHAW – Yes.

CHAIR BARNES – Okay, alright. And then Condition P9 talks about the developer shall submit to review a document to convey title. Is that for the WQMP basins? I was a little unclear as to what they were conveying title to.

ASSOCIATE PLANNER JEFF BRADSHAW – That, I believe, is something we want to correct in the conditions. In this case, the other intent of the HOA would be to retain fee ownership of the basins, not to turn those over to the City, so (A) I do not see as being applicable in this case.

CHAIR BARNES – Okay, alright. Thank you. Condition P11 makes reference to a Slope Erosion Plan. What….I'm not familiar with that plan. Is that something that Land Development now requires or?

ASSOCIATE PLANNER JEFF BRADSHAW – I apologize, Chair Barnes. I was making notes in my conditions. Do you mind repeating the question?

CHAIR BARNES – Yeah, Condition P11, prior to Grading Permit issuance, that condition makes a reference to a Slope Erosion Plan.

ASSOCIATE PLANNER JEFF BRADSHAW – Yes, so Planning would require landscape and erosion, irrigation rather, for slopes that are over this three feet in height. It'd be private slopes in the rear yards.

CHAIR BARNES – Okay.

ASSOCIATE PLANNER JEFF BRADSHAW – I can't recall in this tract if that applies. I know there are some transition slopes, but that is the intent of the condition is to capture private slopes.

CHAIR BARNES – Okay, I just….that term was not clear to me, so alright. Thank you. Then, Condition P18 requires that knuckles and cul-de-sac lots provide off street parking for at least three cars. Is that unique to this project or is that a condition that will be…..

ASSOCIATE PLANNER JEFF BRADSHAW – That is a condition that is an extension of a concern of the Planning Commission from some years ago. I don't know if anyone is seated on the Commission now that spoke to that but during the mid 2000's when development was moving very quickly, there was a concern that the subdivisions, as they were being proposed, were not provided adequate parking within the neighborhood and this was an effort to make sure each homeowner would have sufficient space to park their vehicles.

CHAIR BARNES – Okay, well I don't want to wander into the area of deliberation, but I might want to discuss that further at some point. So will that condition become standard in the future?

PLANNING OFFICIAL RICK SANDZIMIER – As Mr. Bradshaw articulated, it was an interest or a concern of a previous Planning Commission that is not, as I understand it, codified in our Municipal Code for a parking requirement. When you consider the design of a cul-de-sac or knuckles the consideration or the concern is that it has less street frontage because of the curve of the street and since cars that normally on a typical just, you know, subdivision lot has curb frontage in front of their homes. The ones at the ends of cul-de-sacs and knuckles don't. So, if you allow for more parking on the site, then you're addressing the issue.

CHAIR BARNES – Well, the reason I was curious about it is we've approved some projects in the past that have been fairly small lots, extremely small lots, and even rectangular lots facing a straight street have had very little lot frontage and parking has been a concern but…..

PLANNING OFFICIAL RICK SANDZIMIER – The only other thing that I would point out with this particular subdivision is it is a large lot subdivision, so these are half-acre lots. We don't have the actual Site Plans where the homes are going to placed but, usually on a half-acre lot or so, you're actually going to have

larger driveways or side yards and other opportunities. It may not be necessary to actually put a condition in place like this. It would probably be belts and suspenders because the actual design of the half-acre lot, you're probably going to end up with more parking.

CHAIR BARNES – Yeah, you're going to have much larger front setbacks and longer driveways, so I was just curious the source of that condition. I think the last question I…..oh, second to last question. Condition B5, from Building and Safety, proposed residential project shall comply with the latest Federal Law, etc., etc., etc. There is no grandfathering that goes along with these conditions? If any of the statutes listed in there were to change, they would be required in the case of all of those to comply with the current?

PLANNING OFFICIAL RICK SANDZIMIER – It is my understanding that the building and fire codes and specific to public health, safety, and welfare-type issues so those codes, when they do change, the developments are subject to the ones that are in existence at the time of the development.

ASSOCIATE PLANNER JEFF BRADSHAW – The issuance of a building permit would be the only thing that would really excuse a project from being held to a higher standard or a new requirement.

CHAIR BARNES – Right, I guess my question was, and it doesn't relate just to public safety…..go ahead….

PLANNING OFFICIAL RICK SANDZIMIER – I was just asking for…..

CHAIR BARNES – What, what came to mind was Americans with Disabilities Act so, if next year the regulations changed and two-story houses now require an elevator, would this project then be required to put in an elevator or would he be grandfathered to the current ADA Standard?

COMMISSIONER LOWELL – What I think happens is, when you start pulling your permits, that's what codifies what criteria you're held to. So, if you're going to pull a building permit today, you're held to today's standards. But, if you're pulling a grading permit or a building permit in 10 years, you'll be held to the standard that is in place in 10 years. So this is like a benchmark saying, "Hey, by the way, whenever you pull the permit, that's the standard you have to go to." It's just a statement.

ASSOCIATE PLANNER JEFF BRADSHAW – The balance in the process is, you asked about extensions of time, so in three years' time if the project has not been developed and they come to the City and ask for that extension, that'd be an opportunity for Staff to revisit the conditions; not to place new conditions but, if standards or requirements have changed, we would update the conditions to update the most current standard in place at the time.

CHAIR BARNES – Okay, just kind of caught me by surprise a little bit. Alright, and then the last question I had, concerns the grading on lot 16. I was curious why that hillslope is contained entirely on 16 and not adjusted so that the top is on the property line, which is the more traditional configuration because, in this scenario, the fence will be at the bottom of the slope, and the owner of 16 standing in his backyard is going to look right down in 15 with really no slope hindering his view. He might not care but the owner of 15 might.

TRAFFIC ENGINEER MICHAEL LLOYD – Good evening, Chair. Michael Lloyd with Land Development. This was proposed by the Applicant. I see your concern, so if you felt that was applicable and appropriate to put the wall at the top of the slope, the Staff would support that, and we would recommend a condition to reflect that.

CHAIR BARNES – We'll save that for the deliberation portion of our comments. I have no other questions. Anyone else?

COMMISSIONER SIMS – I do.

CHAIR BARNES – Commissioner Sims.

COMMISSIONER SIMS – What does the…there will be….I guess my question is there will be an HOA on this development, these 16 lots?

ASSOCIATE PLANNER JEFF BRADSHAW – There are no common areas, other than the basins that would require an HOA but, but City requirement, the HOA has to be established because of the water quality basis?

COMMISSIONER SIMS – And so what would be the limit and scope of what the HOA would control within the 16 lots? Just the water quality basins maintenance?

ASSOCIATE PLANNER JEFF BRADSHAW – That's correct.

PLANNING OFFICIAL RICK SANDZIMIER – For a little bit of clarification, in the Staff Report, we actually….the HOA has not yet been established. It would predominantly be for the water quality treatment basins, but one of the things we might want to work with the Applicant on is the common-area walls, particularly the perimeter walls and any other things that might be of interest to the Applicant to explore. We did write into the Staff Report that it would be at the discretion of the Applicant at this time, but it is not that we don't want to talk about it. If there is some interest of the Commission, we would be interested to hear back from it. I believe the common-area maintenance that is done, particularly for the exterior walls, the perimeter walls. If they are done consistently, it has a better image for the city. If we allow each of the individual homeowners on the walls and fences

to take care, there is a likelihood you could get some inconsistencies, which we do see around town today, so in the long haul, I'm looking for ways to improve that.

COMMISSIONER SIMS – And this is probably more a question of the developer, rather than the Staff, but the R5 is directly to the south of this. I guess that would be to the south of this. Why wouldn't an R5 be appropriate for development of this property? I guess, in my opinion, if this is…..and I don't know if this is in the overlay for the…..what did we call that with the animal keeping…..

COMMISSIONER LOWELL – The PAKO.

COMMISSIONER SIMS – The PAKO, yeah, that's it.

ASSOCIATE PLANNER JEFF BRADSHAW – It's outside of that area.

COMMISSIONER SIMS – It's outside of the PAKO, so in 2020, I don't know if there is really animal keeping, so this is kind of a square peg in a round hole type of thing. I just speak from experience living on a half-acre parcel of my development that has been out there. Probably 90% of the homes do not have yards. A half acre is a lot of property to try to maintain and, to me, when you distinguish in my neighborhood where our houses are, in comparison to the Richmond American Homes that went in several years after our development went, they downsized. They went in through a Change of Zone and went to third-acre lots, and they have an HOA that requires all the front yards to be maintained, and it is a significantly better development; much, much better. The house prices are higher. The feel, the look of the houses, and the streetscape is much, much better. So, anyhow, long story short, I'm not opposed to a half acre, but it just seems this is…..I don't know, just because it's R2 doesn't mean it's the right thing for the city to have more R2 where it's hard to maintain and meet a pricing point for a developer.

PLANNING OFFICIAL RICK SANDZIMIER – I'd be happy to share some insight on that. It may fall under the discussion on the project, but just risking that we might go that far, I was going to tell you real quickly this is something that we did consider as a staff. There is a nuance here that the General Plan Land Use designation for this site is R5. It's the zoning designation for the site, which is RA2, which is causing it to be developed at the two acres, the two dwellings per acre. If the Applicant wanted to propose an R5-type development, it would require a Zone Change. That wasn't a request, so we've just reacted to the Applicant's interest, and we've processed it because it is consistent with the zoning, but there could be an option, it would just require another phase. You'd have to go through the Zone Change. So if you want to talk about that in a little more detail later, but I think we should probably open up the Public Hearing if there is anybody that wants to speak on it or if the Applicant wants to come back and maybe provide any input, so.

CHAIR BARNES – Fair enough. Let's suspend our question-and-answer period and open the Public Hearing. Do we have any members of the public wishing to speak?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Yes, we do. We have Rafael…..

CHAIR BARNES – Brugueras.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Brugueras.

SPEAKER RAFAEL BRUGUERAS – Thank you, again, Commissioners, Staff, and our guests. I went by this two days ago because it is on Cottonwood, and Cottonwood is a major street. It goes from east to west, and it is used constantly, and the project is between Morrison and LaSalle, more towards LaSalle and, finally, it is going to be occupied with homes. And I looked at the 20,000 half acre, and I understand what Mr. Sims was talking about because I was talking to the developer….or to the Applicant about that and one of the things that caught my interest was the HOA because I know that Shadow Park Mountain, Hidden Springs, Sunnymead Ranch, Moreno Valley Ranch, they have HOA's, and they are required to keep the front always, at least 80% of the front, with lawn; some kind of décor, landscaping to make the property value stay up. And, it's true, when you have something too big, it gets harder and harder to maintain, especially if you work outside of the city and you've got to drive all way and you've only got the weekends, or you've gotten a little older and something physial happened to you that you can no longer do it. Those are the things that can happen in the future, and this is something that we talked about when we had the village in Ironwood and how they wanted to keep it an acre or more, and the developer wanted to have it at 7100 to about 17,000 square feet. That was easy to maintain, less than 20,000. Okay? So I like the idea that it's going to have the drainage for the water. That caught my interest too but, what really caught my interest was the HOA, holding the property owners responsible for their front yards at least because it would have helped the neighborhood to grow. You know, a half acre is beautiful because you can put your RV and all your toys in the back. It's a wonderful thing to have that space, but it is good to have that…..also it is good to be responsible to that space and do let it, like we just heard, all the front yards, it rains and mud runs off into the curb, into the street, into the sewage. That's what happens when you don't have front yards and no HOA. People do as they like or, what happened a few years ago, Jerry Brown cut the water back and everything went to kaput in Moreno Valley. We don't want that. Let's consider HOA and let's build there because we do need that space to be occupied with homes. Thank you.

CHAIR BARNES – Thank you, Mr. Brugueras. Any other speakers?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – No, Sir.

CHAIR BARNES – The Applicant. Could he speak within the Public Hearing or outside? Yeah, okay, go ahead.

APPLICANT DAN WEBB – Well, two things I want to say is, first of all, I really want what is best for Moreno Valley. You know, I have a 20,000 square foot lot, and it is a challenge to maintain. If there was some compromise where we could come up with homes or, I don't want 7200 square foot homes, my wife, you know, there's some mix. Like, you know, a third of an acre or quarter acre of whatever you guys want. I'm super flexible. I just want to make the best houses I can in Moreno Valley, so if you guys are interested in giving…letting me have a smaller lot, that would also help on the….having the HOA is probably the scariest thing in the conditions because having 16 people, which is a pretty small group to maintain stuff, makes me a little bit nervous and spreading around those costs over 16. If I could spread it out over, you know, I would pick the number 25 or 32; that would be a lot earlier. So I'm open to any ideas. I'm in no hurry. I want the right project for you guys.

CHAIR BARNES – Thank you. With that, we will close the Public Hearing and return to discussion/deliberation. Any questions? I've got a couple but Commissioner Lowell.

COMMISSIONER LOWELL – I have a question. Landscaping along Cottonwood. Who would be maintaining that? Is that City maintained, HOA maintained?

ASSOCIATE PLANNER JEFF BRADSHAW – That is City maintained through the Maintenance District.

COMMISSIONER LOWELL – Okay and the homeowners would pay into it, is it through a tax, in addition to the HOA?

ASSOCIATE PLANNER JEFF BRADSHAW – They would be required to ballot into an assessment district.

COMMISSIONER LOWELL – Thanks

CHAIR BARNES – Do you have a Zoning Map that shows surrounding…..

ASSOCIATE PLANNER JEFF BRADSHAW – Yeah and for some reason, when you go to the slide, it decides to make it this postage stamp size. I'm not sure why it's doing that. I have a print copy I can bring up to you, Chair Barnes.

CHAIR BARNES – Yeah. Well, cutting to the chase, I think what Commissioner Sims might be referencing is appropriate, but I'd like some discussion of it.

COMMISSIONER SIMS – My sample size referencing is very unique to me because I do live in a half-acre subdivision that was developed in the early 90s and then we were out there for years and years and years and then Richmond American came in, and they built probably 300 or 400 homes, 200 to 300, whatever it is. And I remember the Planning Commission meeting, and the developer came in, oh, we're going to put in….they wanted to downsize from the R2 to, I think it was R3, to third-acre lots. It was…I think there were petitions going around my neighborhood. All of my neighbors came in, and they were upset, and they were just, "We want half acre." Well, anyhow, the City went ahead and did the Change of Zone, and I could just….it's…..there's a lot of things. It's not in the PAKO. This is not an area, you know, where's a person going to ride a horse here. I don't know if there's a horse trail that goes…if the trail system goes right through this property but, anyhow, this is kind of in a very urbanized part of the city next to a fairly substantive street with Cottonwood where there is a lot of traffic, so probably it's not an animal husbandry-type neighborhood that you're going to see there. It's just going to be a big lot neighborhood and, if the pricing point is tight, the developer is not going to be able to build an estate-size house to justify the size of the lot. So, anyhow, I could go on and on. The cost of the water to maintain it. The cost to build the….to put in the plant materials and to maintain it and stuff. I don't know, it just seems like…..and then the point with get a dominator bigger to justify the expense of an HOA, I think there's a lot to that. I certainly am not opposed to the project. As is, I would go ahead but I think, if the developer is willing to do a Change of Zone, to do something with a third of an acre, something that is kind of transitional to the R5 from the half acre to match the sizes of the…the east and west sides, I think it would be a good project.

COMMISSIONER LOWELL – The City had an exorbitant amount of applicants coming in front of us trying to cram the most amount of houses on the least amount of space. We approved lots down to 4000 square feet in the neighborhood next to me. I think it is a breath of fresh air that the developer is trying to get some decent-sized lots in the middle of the city, and it fits with the houses to the east and to the west. It doesn't fit with the north and south, but he is not asking for a Zone Change, so I don't even think we should be talking about it because he is asking for a Tentative Tract Map with 16 lots in it. We should discuss what's in front of us, not what we wish they would do or think you should do. I think we should just discuss what's in front of us.

CHAIR BARNES – I don't know. In previous meetings, we don't hesitate to say what we think they should do.

COMMISSIONER LOWELL – But we're not going to be changing what's presented in front of us. That's not even in our purview to change it from 16 lots to something else.

COMMISSIONER SIMS – Yeah, but we could vote no if we don't like it.

COMMISSIONER LOWELL – Why would you vote no on a good project when the Applicant wants it?

COMMISSIONER SIMS – But if it's not the right project, it's part of our job as Planning Commissioners…..

CHAIR BARNES – He's just offered up the opinion that he is open to higher density.

COMMISSIONER LOWELL – Tell me a developer that would not want the flexibility to put 500 homes on one acre. Tell me one developer that wouldn't want to do that. Any developer would like to get the most bang for the least amount of buck.

COMMISSIONER SIMS – I refer you to the book *Basic Economics* by Thomas Sowell. You read that. Market drives what market does.

COMMISSIONER LOWELL – Exactly.

COMMISSIONER SIMS – So I heard the developer say it's tight. We're probably going to see dirt sit out there because this is tight and it might be……

COMMISSIONER LOWELL – Try and buy a house in the city right now. They are $400,000/$500,000 right now. I say let's see what happens. He wants to put 16 houses on it. Let's do it.

VICE CHAIR KORZEC – I totally agree. I think…I'm looking at the big picture. We're bringing new industry in. We're trying to attract new people.

COMMISSIONER LOWELL – This is where the CEOs of the Amazon too could live.

VICE CHAIR KORZEC – Exactly. You've got it but, for myself, if I had a choice right now of buying a home with a bigger lot or where I live, I would buy the home with the bigger lot. Some of us come here from parts of the country where you have acreage and you come to California and you live like this and the houses are so close. It is hard to buy homes in this area at a reasonable price that have acreages and lots that are bigger.

COMMISSIONER LOWELL – My house is 10 feet away from my neighbors on each side and 30 feet away from my neighbor in the back. The last two nights of the World Series, I can hear which neighbors are Astros fans and which neighbors are Dodgers fans. They are screaming and yelling and hollering. I

don't like that anymore. I want to have a little bit of space. This guy wants space, I say let's vote on it.

COMMISSIONER SIMS – I understand. We have voted for things that, you know, piling 10 houses on what should be….like the stuff that's going in across from the Kia or whatever. I mean, those are private streets, townhouse attached lot, so that's a market driven thing. The developer thinks he can get that knocked out. All I'm saying is the half-acre lots in my particular neighborhood have never achieved the pricing that they should achieve, and they never will because when you drive through the neighborhood 50% plus, probably closer to 80% of the lots, look like Mead Valley because nobody can afford to maintain it, and there isn't an HOA there to enforce it and so if you want to….

COMMISSIONER LOWELL – Why did this Planning Commission …..

COMMISSIONER SIMS – If you want to have dirt in your front yard, move to Mead Valley.

COMMISSIONER LOWELL – Why did this Planning Commission vote down the project off of Nason and Ironwood? Because it wasn't the right fit. It was too small of lots. We have a person wanting to put larger lots in the neighborhood that's zoned for larger lots. He doesn't want to change the zoning. He wants to put a project in that fits with the zoning, with the neighbors, and we're arguing that he should change it. It doesn't make sense.

CHAIR BARNES – But the same arguments we were using in previous projects because of the high density north and south, you could make the same argument in this case that it is not appropriate.

COMMISSIONER LOWELL – I'm saying he doesn't want to change anything. He just wants a Tentative Map. I'm saying why are we talking about it?

CHAIR BARNES – I didn't hear him say that.

COMMISSIONER SIMS – I heard…I have a package in front of us but….

CHAIR BARNES – Yeah….

COMMISSIONER LOWELL – So we're not here to tell him what he should or shouldn't develop.

COMMISSIONER SIMS – We're not doing that.

COMMISSIONER LOWELL – We're getting way off topic here.

CHAIR BARNES – Well I don't know that we are. I think it's part of the area of our purview to discuss opportunities for each project.

COMMISSIONER LOWELL – He is not arguing anything. He's not asking us for anything special. I don't think that we should grab ahold of trying to design something that's not in front of us. We're not here to design.

CHAIR BARNES – I know. I think we're here to….

COMMISSIONER LOWELL – Had he come in front of a Design Review Committee and say I want to put 32 houses on here that's a whole different ballgame, but he's not asking for that. He's open to the idea and if he wants to, after tonight's meeting drop this case and reapply for a Change of Zone, that's a whole different conversation, but what's in front of us tonight is a Tentative Tract Map. I think we should vote on it as it stands. Nobody out there has discussed any change or any argument of anything.

COMMISSIONER SIMS – I don't disagree. I just wanted to get my two cents in.

COMMISSIONER LOWELL – He is trying to make us earn our stipends.

COMMISSIONER SIMS – But he spent a lot of money getting it to where it's at, so…..

COMMISSIONER LOWELL – Exactly.

COMMISSIONER SIMS – It is what it is.

COMMISSIONER LOWELL – We can armchair engineer for days.

CHAIR BARNES – Well, does someone want to make a motion?

COMMISSIONER LOWELL – I will gladly make a motion. How do you want to do it with the new system? I need to state the motion first?

PLANNING OFFICIAL RICK SANDZIMIER – You should state motion. I think the one thing you might want to include in the motion, if you haven't remembered that, is the change to that one condition.

COMMISSIONER SIMS – Now, we have a motion A1,2 and B1. Do I read them individually or just make a motion for the Resolution?

CHAIR BARNES – The Resolution is enough, right?

COMMISSIONER SIMS – The Resolution is okay?

ASSISTANT CITY ATTORNEY PAUL EARLY – You can read the whole thing if you like. I've often recommended for brevity, you can just recommend the first part before the colon on A and on B. You want to do both of those, at least that much.

COMMISSIONER SIMS – I would like to make a motion to approve Resolution No. 2017-34 and approve Resolution 2017-35 with the Conditions of Approval as recommended tonight.

VICE CHAIR KORZEC – I second.

CHAIR BARNES – I have a question on the amended conditions. What does that include? What have we amended?

ASSOCIATE PLANNER JEFF BRADSHAW – In Condition P9, we would be deleting the reference to the document to convey title. We would delete that from that condition.

CHAIR BARNES – Alright. I would….

PLANNING OFFICIAL RICK SANDZIMIER – It's line A. For the record, it's line A of that Condition.

CHAIR BARNES – If I want to propose another amendment to the conditions, is that an alternate motion or how do we do that?

ASSISTANT CITY ATTORNEY PAUL EARLY – It would be an alternate motion unless you could convince the mover to add it to his original motion.

CHAIR BARNES – Ah, I haven't been able to convince him of anything else tonight, but I'll put it out there. I would also like to add a condition requiring the slope between lot 16 and 15 to be moved to the south so that the top of slope is on the property line, not the top of the slope.

COMMISSIONER LOWELL – I do agree with that. Would that be a Lot Line Adjustment to move it over, or would the slope be moving?

CHAIR BARNES – No, we'd just….

ASSOCIATE PLANNER JEFF BRADSHAW – That would be….

CHAIR BARNES – Just revise the Grading Concept to put the slope on the other side of the line, right?

TRAFFIC ENGINEER MICHAEL LLOYD – That's correct. It would be a plan check comment once we move forward with the project, and we would relocate the slope, so that the property line could stay as shown.

COMMISSIONER LOWELL – Okay, so would I make a condition on that or how would I do that?

ASSISTANT CITY ATTORNEY PAUL EARLY – No, you just state that you're moving with the conditions that we have just set forth.

COMMISSIONER LOWELL – Okay, I would like to amend my motion to include the condition set forth by Chairman Barnes.

ASSISTANT CITY ATTORNEY PAUL EARLY – Do you still have a second for that?

VICE CHAIR KORZEC – Yes.

CHAIR BARNES – Having a motion and a second, please vote. The motion carries 5-0.

Opposed – 0

Motion carries 5 – 0

PLANNING OFFICIAL RICK SANDZIMIER – This is an action taken by the Planning Commission, which is an appealable action. If there is any party that feels that they want to appeal this, this is a Subdivision Map, so it has a 10-day appeal period. The appeal should be directed to the Director of Community Development, and it would be scheduled to go before the City Council for a hearing within 30 days, if such an appeal is filed.

CHAIR BARNES – Thank you, Rick. Commissioner Sims.

COMMISSIONER SIMS – I don't disagree Brian at all with your statement that we should vote for what we did. I think we all made a good decision on this, but I do want to just say I do think it's right for us to have this kind of conversation, especially on something like this where a developer could decide after he hears, oh, I may want to do something before he moves forward. Also, it provides, if anybody is listening out there, they could provide input into future projects, and also it could be a message to the City Council in making considerations in things like that. So, the discussion, I don't think may be off point, per say, because we're not going to change the conditions; say, oh no, we want you to put in three

lots there or whatever or houses to the acre. But I think, for the record, to create the deliberation on some things for potential forward change is worth the effort.

COMMISSIONER LOWELL – Yeah, I agree, and I understand. I kind of had a feeling that we were going down a way of not approving this project because we wanted to force them to do a Zone Change, and I was just trying to pull us back on point, but I completely agree, and I completely understand.

COMMISSIONER SIMS – There's always battles to win wars.

CHAIR BARNES – Waxing philosophical. That a boy. Alright, moving onto Case 2, PEN17-0115. Applicant is the City of Moreno Valley. Good luck getting this approved.

2. Case:	PEN17-0115
Applicant:	City of Moreno Valley
Owner:	City of Moreno Valley
Representative:	Community Development Department
Location:	City-wide
Case Planner:	Claudia Manrique
Council District:	All
Proposal:	A City-wide Municipal Code (Title 9) Amendment addressing Land Use Regulations for Accessory Dwelling Unit (ADU) (formerly Second Dwelling Units) to ensure compliance with new State of California laws.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-33 and thereby:

1. **FIND** that PEN17-0115 (Municipal Code Amendment for Accessory Dwelling Units) qualifies for a Statutory Exemption in accordance with CEQA Guidelines, Section 15282(h) and;

2. **RECOMMEND** that the City Council approve the proposed amendments to Title 9 of the City Municipal Code, PEN17-0115.

PLANNING OFFICIAL RICK SANDZIMIER – That's what I was going….I was hoping you weren't going to say that, but this is a City-initiated change to the Development Code and Claudia Manrique, our associate planner, will be making the presentation.

ASSOCIATE PLANNER CLAUDIA MANRIQUE – Good evening. This is a City-wide Municipal Code Amendment to Title 9, addressing what was formerly known as the second dwelling unit. SB1069 and AB2299 were approved last year in September and became effective in January of this year. Both bills renamed second dwelling units to accessory dwelling units, also known as ADU's. Staff proposed to amend the existing ADU Ordinance in order to comply with State Law. Currently any ADU's that come in would be processed under the State Regulation and this is until Moreno Valley updates its Ordinance. There are a few of the proposed changes that are going to the Section 9.09130, the three-dwelling section unit now. We're adding some definitions. This includes some cleanup of the permitting processing. We have some Development Standards for efficiency units of some added restrictions for fire safety, along with some new parking requirements. Major changes, besides the name title to accessory dwelling unit, is adding two definitions to both the section of ADU's as well as the definition section of the Code. Accessory dwelling units can be either attached or detached and must include sleeping areas as well as a kitchen and sanitation. Efficiency unit is new. It is only in attached units. It has a minimum square footage of 150, so it's rather small. It can have small bathroom facilities and does not need to have a full kitchen. The State has opted to give residents who are developing at ADU some exemptions from parking. There are five of them. This is…will help with units that are near transit stops as well as ones that are potentially near car sharers. Some of the additional requirements that are being addressed in tonight's proposal is the maximum size is 1200 square feet. Attached ADU's cannot be greater than 50% of the existing space. ADU's are permitted on single-family lots as well as multifamily lots with existing single-family homes. Existing accessory structures may be converted to an ADU. This proposal is exempt under CEQA, and Staff recommends approval of Resolution 2017-33. It finds that the proposed amendment is exempt under CEQA Section 15282H and recommends that the City Council approve the proposed amendments to Title 9. Thank you.

PLANNING OFFICIAL RICK SANDZIMIER – If I may, Mr. Chairman. I want to just add a little bit of additional background. The reason this is before us this

evening is not because the City itself wanted to come up with some new standards for second units or accessory dwelling units, this is really forced on us by the State. The State, as you have probably read over the last year and even years before that, has been looking at ways to facilitate and to remove obstacles for making it easier for people to get access to housing. The accessory dwelling unit is considered to be an opportunity for people who are looking for what might be affordable housing opportunity to do that as well. The accessory dwelling unit is the same thing as a second dwelling unit. We had in our Ordinance before where it can be rented out to somebody else. You still have to have the primary owner of the site either residing in the accessory dwelling unit or in the primary home, so you have to have the property owner on the site, but the reason for the second unit is to possibly generate some revenue so that that homeowner, the property owner, can actually generate some revenue. I will say that the accessory dwelling unit standards were somewhat derived from really a Northern California focus, and so a lot of the focus seems to be on smaller compact developments that are closer to transit opportunities that don't necessarily need parking requirements. The parking allowances that are in this are a pretty significant change. Pretty much any unit that comes into the city is probably going to be in one of those categories and may be able to request relief from the parking requirement, and we just want you to know that it is not because we want to give away the parking requirement. We are going to be forced to actually do that because we have to comply with the State Regulations. The other thing I want to point out is you may recall that this second dwelling unit or accessory dwelling unit topic did come up a while back and, as Claudia has pointed out in the presentation, the State Law was actually being crafted back in 2016. It was actually approved in, I think, September 2016, and it went into effect in January of this year. During that time, the City Council was interested in possibly getting a study session on accessory dwelling units for various reasons; a lot of other things going on. That study session with the City Council never took place and so, instead of holding off and not updating our Ordinance because our Ordinance does need to comply with the State Regulations, we have moved forward with making the change to our Code to just make sure that we are compliant with the State Regulations. The item before you, I'm not sure that Claudia pointed out in the Staff Report, is that your action tonight is in an advisory capacity because this is a change to the Development Code, which ultimately requires City Council action. So, after your action this evening, we will be taking that recommendation forward to the City Council for the final action.

CHAIR BARNES – Thank you, Rick. Anybody have any questions?

VICE CHAIR KORZEC – I do. Does this relate in any way to these rentals that people do online for like you can use somebody's apartment for a week or two weeks and how does that affect a neighborhood, rather than a person being there over long-term?

PLANNING OFFICIAL RICK SANDZIMIER – It does not fall under the category of like an Air B&B…

VICE CHAIR KORZEC – Yeah.

PLANNING OFFICIAL RICK SANDZIMIER – Where people are doing short-term rentals or renting the rooms on a short-term basis. That's not the intent. I did talk with our Finance Staff this afternoon about that particular topic. We don't have any regulations with regard to that topic, but this is not something that we think is in that realm at this point.

CHAIR BARNES – Commissioner Sims.

COMMISSIONER SIMS – For context purpose, how many of the secondary units are processed through the City prior to this change? Is it a little, a lot, on an annual basis, perhaps?

ASSOCIATE PLANNER CLAUDIA MANRIQUE – I don't have an exact number but approximately two to three a year, not too many.

CHAIR BARNES – What differentiates and efficiency unit from somebody who is renting out a bedroom to a college student?

PLANNING OFFICIAL RICK SANDZIMIER – The distinction would be the efficiency unit does have to have at least a partial kitchen and a bathroom facility that is for that particular unit itself; where somebody could be renting a room, may be actually using the kitchen facility or the bathroom that is part of the main house. That would be one clear distinction. The efficiency unit, if it is treated as an accessory dwelling unit, I believe, correct me if I'm wrong Claudia, cannot have a direct access to the primary residence. It has to have its own entrance. Whereas, somebody who is renting a room, can go through the regular front door and any other door into the house, and so there is no distinction there. That's two things or at least three things.

CHAIR BARNES – Okay and then something caught my eye about the written agreement with the City that is required when I guess an applicant applies for an accessory dwelling unit or an efficiency unit, what's the…what's the purpose of that agreement? What is it stipulating?

PLANNING OFFICIAL RICK SANDZIMIER – That agreement is actually being carried forward in our current regulations, and it basically is a contract, so to speak, almost where we know that the Applicant is acknowledging that these are the requirements for having this second unit consistent with our Municipal Code. We think that is important to continue to have. It's not a requirement of the State Regulations. It's something that is actually being carried forward from our current regulations.

CHAIR BARNES – Okay, alright. I was just curious where that came from. Okay, Commissioner Sims.

COMMISSIONER SIMS – Yeah, I noticed when I was reading through the materials that it appears that there is a….if somebody wanted to convert a garage into axillary……

CHAIR BARNES – Efficiency unit.

COMMISSIONER SIMS – Efficiency unit, let's say, because it would be attached to the house. How does the City handle that? I mean is there….through the administrative plan check process, there would be a requirement for a carport or some kind of other thing to replace the covered parking that was already designated for the single-family residence that had that?

ASSOCIATE PLANNER CLAUDIA MANRIQUE – The State doesn't allow…if it's going to be an attached unit, we can't place any parking requirements on the project or any additional parking so…..

COMMISSIONER SIMS – You said if it's going to be what kind of a unit?

ASSOCIATE PLANNER CLAUDIA MANRIQUE – Attached. Detached still has the requirement of one parking space per bedroom unless it meets one of the five exemptions, which they need to provide with their application. So if they came in and said, we're within a half mile of a bus stop, they need to show us what distance and what bus stop they would be using.

COMMISSIONER SIMS – So when somebody would come over and say I'm going to convert my two-car garage into whatever this 450 square feet or whatever it is attached, the largest could be, probably not a whole garage, a garage bigger than that, I'm not sure off the top of my head but, anyhow, long story short is that would have to go through the Title 22 calculations for the air conditioning and all that kind of stuff. It couldn't just be close up the front garage door, wall that in, and…..

ASSOCIATE PLANNER CLAUDIA MANRIQUE – Right. It would need to come in as Administrative Plot Plan, so Planning would be reviewing what the new elevation would look like as well as going through the building process.

COMMISSIONER SIMS – And this, this, I mean I'm not against this, but it seems like there is the potential….what was the prior thing when you have to have three, three onsite parking. I think you better codify that pretty quick; otherwise, this is going to be challenging potentially but, if there is only two of them a year or something like that….

CHAIR BARNES – Anything else?

COMMISSIONER LOWELL – How is the distance to the nearest parking or nearest public transit station measured? Is it straight line or is it as you…along path of travel?

PLANNING OFFICIAL RICK SANDZIMIER – I actually went to training on this one. It's really ambiguously defined. A lot of the cities are very concerned about the way the State wrote the regulations because it just says you have to be approximated to transit. If somebody wanted to come in and make an argument that is to a bus stop or to a transit stop or somebody could also come in and say, no, that's just proximity to a bus line, and it happens to be a bus line that runs through my neighborhood, and I want to make that argument. We're asking that the Applicant be required, and that's one of the things Claudia was touching on was, we're going to make it a requirement of the Applicant to demonstrate to us how they are meeting any of those five criteria, and so we hope that is going to give us a little bit more opportunity to evaluate that circumstance and discuss it with the applicant's and maybe, over time, the state will actually make some clarifications on that but, right now, it's a very grey area. I'm sorry. I cannot give you a definitive answer on it.

COMMISSIONER SIMS – Okay.

CHAIR BARNES – Building on what Commissioner Sims was saying, hypothetically, what's the difference between a guy who comes in and says I want to add an efficiency unit by converting my garage to two bedrooms or whatever and a guy who comes in and says I want to convert my garage to two bedrooms? Is either process acceptable or does he have to use the "E" word and then he has to sign the contract with the City and all these regulations come into play or he can just do a building modification and end up with the same physical product but not the criteria that comes with calling it an efficiency unit?

PLANNING OFFICIAL RICK SANDZIMIER – If he wants to consider it, instead of calling it an efficiency unit, let's call it an accessory dwelling unit because an efficiency unit is a form of an accessory dwelling unit, so the accessory dwelling unit will have to have the standards. It has to have its own entry and own entrance to the living unit. He will have to come in and go through all the Building and Fire Codes and has to be established as a unit that has a bathroom facility and at least a partial kitchen. That'll be confirmed instead of just converting it to two bedrooms. If somebody just wanted to come in and convert the garage to two bedrooms, they are going to be held to the requirement that they do have to replace the parking that's required for the unit. That's going to be automatic. I'm sorry. It's going to be an automatic requirement to replace the parking if it is an addition of bedroom space but, if it is an addition of an accessory dwelling unit and they can satisfy one of the other five exemption criteria, then the parking may not have to be replaced but, if it is just adding

bedrooms, they are going to have to replace the parking. I don't know if that's coming across clear or not.

CHAIR BARNES – Well, maybe I'm not understanding all of it. It seems like there is this huge grey area between a guy making improvements and not calling it an efficiency unit or, whatever the term was, and a guy who does and I'm just….

COMMISSIONER SIMS – I think the distinguishing characteristic between the efficiency unit and a conversion of your garage to two bedrooms is the fact that, if he wants to get the efficiency unit approved, he has to have a separate entry into the property and it has to have its own…..

COMMISSIONER LOWELL – Kitchenette…..

COMMISSIONER SIMS – Kitchen and little kitchenette and a bathroom, so, so and then he can….then that owner can then, if he can meet the exemptions for the parking, wiggle out of the replacement of the garage parking. If he wanted to just come in, and I have a two bedroom house, and I'm going to have two more kids, and I need four bedrooms and I'm just going to put….make my garage into two more bedrooms. He's not going to have….and he goes through….doesn't just do it on the weekend job and comes in and permits it, then he is going to have to go build a carport of whatever the City requires for replacement of the covered parking.

CHAIR BARNES – It seems like an odd circumstance that has the potential for some unintended consequences but we're here to just advise, and I don't think that in the long-run it matters that much. So, any other questions? Does somebody want to make a motion?

COMMISSIONER SIMS – I'll make a motion. Let me find it here real quick. Being that this is a requirement of the State of California…..

PLANNING OFFICIAL RICK SANDZIMIER – Hold on, hold on. This does require a Public Hearing.

COMMISSIONER SIMS – Oh, I'm sorry.

CHAIR BARNES – My apologies. The Chair has dropped the ball again. So, having no further questions, I would like to open the Public Hearing. Do we have a speaker?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Yes, we do, Rafael Brugueras.

CHAIR BARNES – Mr. Brugueras, please come forward.

SPEAKER RAFAEL BRUGUERAS – Thank you, Chair, Commissioners, Staff, you know when you sit back there and you start listening to some of the confusion that goes on, you're going to have a lot of lawbreakers because it's a lot easier just to break the law and make it a two bedroom apartment and don't tell nobody. You'll have those. Okay? Because if somebody is going to have to go through what you just mentioned, the private entrance or remodeling the garage and two bedroom and going through a carport and everything, they'd rather just say thank you and walk away and just still do it, and I've seen plenty of those, especially when you knock on peoples doors campaigning. You see who opens the door and what door opens, so you have a lot of that, okay. So that was a really tough one. Now, I like people to be able to build homes or another dwelling place behind their existing home, but I never thought…..I'm not thinking of tract homes. I'm thinking of the R2's, R3's, R4's, and R5's because there are plenty of them in Moreno Valley, and some of them may want to build a second home, like one of the slides. Because the door was open today to that 10 acre, 20,000 square feet, he has the right. Those people have the right to build a home in the back because, anything over 7200 square foot, you have the right to pull a permit and see if you're able to put a house in the back. So in one of those slides it had a nice little blue house with green trimming and a brown fence, and I looked at it and, I said, there it goes. A 20,000 square foot lot with a little house on the back. That could happen on Cottonwood because we just agreed to it. Mr. Sims, if he would have persuaded, and he did. He did persuade the Applicant for a moment to go down a little smaller, okay? You know, one-third is pretty big too, and he was being real honest about his neighborhood and some of his neighbors. It would've been nice to see a one-third, maybe 25, 32 houses. Ten thousand acres is a lot. I live on a 10,000 acre lot, and do you know how much money it costs to cement that alone? That's not counting a pool, or the deck, or the carport, or the port in the back, nothing. That's a lot of money, so I hope that you approve this; not to see track homes but homes in the back of….but people that have a lot of acreage so they can get a chance or if we could have a chance to change someone's mind for the better good of the City, we should talk about that.

CHAIR BARNES – Thank you, Rafael. Alright, any other speakers? It doesn't appear so. It's very empty out there. With that, we will close the Public Hearing. Now, would we like to deliberate, make a motion?

COMMISSIONER SIMS – Well, I would say this is an unfunded mandate from the State of California to create more Code Enforcement work for our fine City Staff but, so be it, but its legislation so you have to do what you have to do, so I'm willing to make a motion to approve it. I think it's pretty….I think Staff did a good job. It's pretty thoughtful and adjusting the 1250 to 1200, I think they dotted the "I's" and crossed the "T's" on this thing to fit, at least the spirit of what the State has mandated.

PLANNING OFFICIAL RICK SANDZIMIER – So the motion when it is made, if he is making a motion, would be a recommendation to the City Council to approve it because you guys won't be the approval body.

COMMISSIONER SIMS – So I don't know if there is any other deliberation but I'm willing to make…..

VICE CHAIR KORZEC – I'll make the motion.

CHAIR BARNES – Anyone want to second?

ASSISTANT CITY ATTORNEY PAUL EARLY – Is that a motion to approve both the Resolutions before you?

COMMISSIONER SIMS – Yes, I would recommend the Planning Commission approve…recommend approval of the Resolutions that are under consideration here and for City Council approval for consideration.

COMMISSIONER BAKER – I'll second.

CHAIR BARNES – A motion from Commissioner Sims. A second from Commissioner Baker, so let's vote.

VICE CHAIR KORZEC – I don't have a voting thing.

CHAIR BARNES – Oh, hit your…bear with us.

COMMISSIONER LOWELL – So, for clarity, we're motioning to approve the Resolution PEN17 or 2017-33….

CHAIR BARNES – Oh, in that case, I'll vote. All votes have been cast. The motion carries 5-0. Do we have a wrap-up?

Opposed – 0

Motion carries 5 – 0

PLANNING OFFICIAL RICK SANDZIMIER – The item before you is a legislative action, which requires a City Council as the ultimate approval of authority on this. Your recommendation will be carried forward to the City Council for that action.

We don't yet have a date set, but we do expect it will probably be before the end of the year.

CHAIR BARNES – Thank you, Rick. Next on the Agenda, Other Commission Business. Do we have any Other Commission Business?

OTHER COMMISSION BUSINESS

PLANNING OFFICIAL RICK SANDZIMIER – No, there is no other Commission Business. Sorry.

CHAIR BARNES – There is no other Commission Business. Staff Comments?

STAFF COMMENTS

PLANNING OFFICIAL RICK SANDZIMIER – Yes, thank you, Chair Barnes. Looking at the lightness of the Agenda tonight, but we've had a lot of discussion, I did put together a few slides just to kind of bring the Commission up to speed on the activity that's been going on in the city over the last year. It'll take me a few minutes and, if you want me to go faster, I'll be happy to do so. There's no action to be taken on this particular presentation this evening. It's really for information purposes since we haven't met in a couple of months, and there's been a lot of activity going on in the city. People at home watching might enjoy seeing this as well. It gives a flavor of what we're pretty proud of here at the city in terms of the economic development and activity we've been generating. Okay, so as an activity overview, what I'm going to cover is residential development, commercial development, and some industrial development, building major permits that have been issued. We issue lots of minor permits every day, so I'm not counting all those. These are really kind of the major ones that you see out there. Residential units, 218 residential permits have been issued in the last year. The commercial permits are 37. I apologize, the slide, I think it got reformatted when we put it up here. Hotels, we've permitted one, but we've got three other ones in the works that we hope to have permitted very soon. And then industrial development, these are the large-scale industrial, developments that we've had. We've had two major projects permitted. On the residential side, this is an example of some of the phases of where the construction is. This is a Lennar development up at Pigeon Pass just north of the high school. Some of those units are still in the framing stage. Some of them are in the closer to completion with the finishes on the exterior, the roofing being put on, and I believe that some of the units there are already close to putting in the landscaping, so that development is moving pretty rapidly, and they are phasing it in pretty nicely. Pacific Communities has some completed homes in the area.

RSI also has some completed homes,so we've got some of the people already moving into. I think that image on the right shows the completed homes with the front yard landscaping and one of the units with the garage door open shows the people have already moved in. A while back, the Commission had asked some questions about the landscaping in the new homes. I hope that this is better than what we had seen the last time we brought this. It still may look a little bit sparse, and I did get some questions asked about some of the recent projects that we've signed off on the landscaping. We're still trying to follow a drought-tolerant landscaping, but the planting materials that are being planted here are supposed to be faster growing and hopefully, over a short period of time, they will fill in. So it may look sparse, but the idea is to make them more robust, and I've been working with the staff to make sure that we are encouraging the residential builders to, now that we're not in a drought condition, be thinking of maybe some more attractive landscaping. Just, overall, those 218 units are represented by several homebuilders. We've got RSI out there, KB Homes, Lennar, Frontier, Pacific Communities, and Metric Homes. So we're not just attracting one, we're attracting multiple homebuilders. New residential projects that are not yet in construction but have been before you as a body or one that are currently pending. This is the number of homes that you guys have looked at, Mission Pacific was the Legacy Park project, Rocas Grandes, Bella Vista, Chara Villa, were all apartment projects. And then the bridge development, which is the current proposal on the Moreno Valley Ranch Golf Course. They are looking at about 416 units on the driver range that is still going through the process and should be becoming before you in the next few months we hope. Commercial and retail development, you may have heard our Economic Development Team touting the success we had with what is called the Quarter Project. The Quarter Project is a mixed-use development of some sorts. It has a gas station with a convenient store attached to it. It has two potential restaurant pads, one multitenant building, and then the key on that site is two hotel sites, and one of those hotel sites has already gone through the permitting process and the site is currently being graded, and it shows the current grading activity. We're very proud that we've been able to attract the new auto dealership. This is Hyundai, which is getting close to opening. They haven't actually set the opening date, but we think it will be may be before the end of the year, so that's what this one is. On the commercial side, we also have continued development over in the Town Gate area. The Town Gate Promenade area is the area close to where Applebee's and Mimi's and Tilted Kilt and the new Aldi's market went it. Well, right in that same parking lot, if you've been over there lately, you'll see this pad that's being built on, and this will have three potential tenants in the future. We know who two of the potential tenants are but, because they haven't actually gone public, we don't want to say it in public and kind of spoil their thunder or steal their thunder. In addition, just activity going on in all of our other shopping centers at Canyon Springs Plaza, we've issued permits for a variety of new businesses. We've got Country Inn & Suites, which is one of those new hotels that we think is going to be going into construction here pretty soon. This is over in the village area off of Sunnymead Boulevard right adjacent to SR60. It was

entitled many years ago, but they are now moving forward, and we think it's going to be a nice attractive addition to Sunnymead. The Golden Corral is one that I am, I guess, maybe going ahead of….I think this has been publicized so I am putting it out there but Golden Corral is looking at another site along Sunnymead Boulevard just west….or just east of Chuck E. Cheese. Moreno Beach Plaza, we had a new AT&T store open in and another restaurant in the Moreno Marketplace. Commercial activity that is not retail, we are seeing some activity with medical-type uses, the Riverside University Health System. This is a 200,000 square foot medical office building, which has been approved in the parking lot right next to the hospital. They are going through Planning Check, and they've actually allowed us an opportunity to review the onsite development. So that's good, and they are also going through the state architect for their approval of their building. And then you guys saw recently the Main Street Transitional Care Facility, which is a 90-bed facility, which was approved, was entitled. They haven't come in yet for development, and we're not sure if they are going to, but it's approved, so it's entitlement on the site, and we'll see what happens with that. On the industrial side, we are still seeing continued development for large-box logistic-type facilities. These images, or the one that is right here close to the Civic Center right across the street, has been going up pretty fast. It's a little over 600,000 square feet and then, just a little further east of that, we recently brought a project before you by Core 5, this is a 99,000 square foot, almost 100,000 square-foot building, which is going through Planning Check, so we see that they are going to be breaking ground pretty soon also. In the south industrial area, I don't have any images of these, but you can see the size of these developments that are progressing, going into construction, is pretty significant and then last, but not least, the other stuff I was telling you usually comes through our current Planning Group, and that's Chris Ormsby's team. So he has been very active but, on the Advanced Planning Side, and I've got Mark Gross here this evening. He has been equally busy and maybe even more so in some regards with getting our Comprehensive General Plan off the ground. We did release the RFP in October. We're expecting to get proposals here November 9, 2017. We will be negotiating that contract and hopefully issuing a notice to proceed right at the beginning of the year, and it is a very aggressive schedule. It is tied to the Strategic Plan that the City Manager and the City Council worked very hard at approving back in August 2016 and, in that document, it targets the completion of the General Plan Update by August 2019. So we are going to try and be very firm on meeting that deadline. In addition, we've done some studies on Nason Corridor before, but the City owns about 65 acres of land at the corner of Nason and Alessandro. We were able to secure a grant, which I think I've told this Commission in the past, it has taken a little bit of time to go through the SKAG (Southern California Association of Government) process to actually procure a consultant but that is in progress. We are actually very, very close. Claudia has been working very hard and Mark is also involved in that. Once we get the consultant started, they've given us a year to finish it but, because of the information that will come out of it, it will be tied to the General Plan Update. We are going to be pushing that to get done closer to like

a nine-month period of time. Also, we are happy to say that we've been able to secure some additional outside grants. This one is about $65,800 from Western Riverside Council to Governments. The money was secured just a couple of months ago, and we're now in the consultant selection process. The RFP will go on the street, I think, within the next week. We hope to do that in a very timely fashion and, again, because of the Healthy Community Study, we'll be feeding into the health element that we're trying to develop in the General Plan. We want to get that done also in a very timely manner, so I've put up here 9 months, and that'll be a very aggressive schedule. I think that is my last slide. Maybe not. I'm sorry. The last slide here is, in addition to the other work that we're doing here for our own City, we have to monitor what goes on around us. And so, on Mark's team, there's a lot of Notice of Preparation's that come in, EIR documents, sometimes Mitigated Negative Declarations for projects that are going on in the City of Riverside, the County of Riverside, the City of Perris, March AFB, are the ones right around our border, but we don't stop there. Sometimes, if we see something that is large enough that has the potential of causing some impacts in our City, we'll actually comment on those as well and there was recently one in the County of Riverside. Actually, I think it was the County of San Bernardino, it might be, which is up off the 10 Freeway, just over in the Beaumont/Cherry Valley area that we were looking at. If you've read in the newspaper, it's a pretty large facility. Then we also track legislation, and we also follow the CEQA regulations, and this is kind of a joint effort between both our Advanced Planning and Current Planning Teams. So we're staying pretty busy. What I didn't show up here was the amount of activity that comes through our Development Services Center, and last year we continued to implement the Simplicity System. The Simplicity System is our development tracking system and our permitting system that is making our activities much more transparent, so applicants can actually log on and see what's in the hopper. Hopefully, in the future as that thing continues to grow, we'll actually be able to see how it is progressing and where it is at and maybe even be able to see some of the documents where we can load them up into the system, so that's been working very well. With that, I will stop, and it is a nice evening. I know that some people may want to get off to places. It's still an early hour, so.

CHAIR BARNES – Thank you, Rick. I appreciate all the info. It seems that a lot is going on in the city, and that's a good thing.

COMMISSIONER SIMS – Do you make this presentation to the Council?

PLANNING OFFICIAL RICK SANDZIMIER – I have not. I don't want to take the credit for this being my great idea. This was actually your Chairman who thought that we could use some of the time on the Agenda this evening to make you guys aware, so I appreciate Chairman Barnes asking me to make this. It actually makes me feel good about what we're doing because sometimes we get lost in the heat and you don't really realize how much is going on.

COMMISSIONER SIMS – Well, I don't speak for the other Commissioners, but I think this is…I mean, as the sea rises, all the votes go up and so when you see this kind of….that's significant activity, and I particularly like the whole medical health thing. I think the city, I mean, I know we have our logistics stuff and all that, but I really think that that's, you know, the economic development arm should really hammer at trying to get as much as they possibly can and get as much synergy out of that. Those are higher-skilled jobs and put a lot of people to work, even with the care-facility type things. People need help and why not have Moreno Valley provide that help. So, anyhow, I would think that it would be very good to have the presentation made to the Council to let them know what's going on. I mean, they probably already….they do know what's going on, but it's good at the Council meeting. There's a little bit more notoriety and attendance and whatnot so.

CHAIR BARNES – Thank you, I agree totally. Anybody else?

PLANNING COMMISSIONER COMMENTS

CHAIR BARNES – Any wrap-ups? Alright.

ADJOURNMENT

CHAIR BARNES – Well, Staff, thank you very much. I appreciate your patience and your help, and I guess, with that, we will adjourn the meeting until the…..

PLANNING OFFICIAL RICK SANDZIMIER – Can I just add one thing? We are going to have a meeting on November 9, 2017. It will be a very light Agenda at this point, but we have one project that came in very fast. We're going to process it. It has to do with repainting a building. It may seem kind of simple, but we'll have one item on your Agenda. It's the large building down here at the end of Veterans Way and Newhope so.

CHAIR BARNES – Okay, Brian.

COMMISSIONER LOWELL – I'd like to wish everyone a Happy Halloween. Halloween is Tuesday. If you're not here at City Council Chambers, make sure you're out trick-or-treating and, if you are, be safe. Wear something light colored. My kids will be out there. They look forward to it every year, so Happy Halloween everybody.

CHAIR BARNES – Thanks, Commissioner Lowell. Alright, we are officially adjourned until November 9, 2017, here in these chambers. Thanks everyone.

NEXT MEETING

Next Meeting: Planning Commission Regular Meeting, November 9, 2017 at 7:00 PM, City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

_____ _____

Richard J. Sandzimier Date
Planning Official
Approved

_____ _____

Jeffrey Barnes Date
Chair

Minutes Acceptance: Minutes of Oct 26, 2017 7:00 PM (APPROVAL OF MINUTES)

CITY OF MORENO VALLEY PLANNING COMMISSION
REGULAR MEETING
CITY HALL COUNCIL CHAMBER – 14177 FREDERICK STREET

Thursday, November 9, 2017 at 7:00 PM

CALL TO ORDER

CHAIR BARNES – Good evening ladies and gentlemen. I would like to call to this regular-scheduled meeting of the Planning Commission Meeting to order. It is Thursday, November 9, 2017, and the time is 7:03 PM. Can we have roll call please?

ROLL CALL

Commissioners Present:
Commissioner Lowell
Commissioner Baker
Vice Chair Korzec
Chair Barnes

Commissioner Sims - absent

Staff Present:
Rick Sandzimier, Planning Official
Paul Early, Assistant City Attorney
Ashley Aparicio, Recording Secretary/Administrative Assistant

Speakers:
Rafael Brugueras

PLEDGE OF ALLEGIANCE

CHAIR BARNES – Thank you, now would one of the Commissioners like to lead us in the Pledge of Allegiance?

COMMISSIONER BAKER – I'll do it.

CHAIR BARNES – Commissioner Baker, thank you.

APPROVAL OF THE AGENDA

Approval of PC Agenda for November 9, 2017

CHAIR BARNES – Thank you. Next item is approval of the Agenda.

COMMISSIONER BAKER – I so approve.

COMMISSIONER Barnes – I'll second.

COMMISSIONER LOWELL – A motion from Commissioner Baker, a second from Commissioner Barnes. All in favor, say aye.

VICE CHAIR KORZEC – Aye.

COMMISSIONER BAKER – Aye.

COMMISSIONER LOWELL – Aye.

CHAIR BARNES – Aye.

CHAIR BARNES – Opposed? The motion carries 4-0.

Opposed – 0

Motion carries 4 – 0

APPROVAL OF MINUTES

None

CHAIR BARNES – Next item is approval of Minutes, which there are none.

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and all will be enacted by one rollcall 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.

CHAIR BARNES – Next item is Consent Calendar. No items on the Consent Calendar.

PLANNING OFFICIAL RICK SANDZIMIER – None.

PUBLIC COMMENTS PROCEDURE

Any person wishing to address the Commission on any matter, either under 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 the Chairperson of the Commission and not to other members of the Commission, the applicant, the Staff, or the audience. 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 their request to Guy Pegan, our ADA Coordinator, at (951) 413-3120 at least 72 hours prior to the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

CHAIR BARNES – Next on the list, the Public Comments portion of the meeting. Any person wishing to speak, please fill out a Request to Speak form, and Rick will call your name.

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Yes, I have Rafael Brugueras.

SPEAKER RAFAEL BRUGUERAS – Good evening Chair and Commissioners, Staff, I went to a meeting on November 1, 2017, here at the center, and it was hosted by Moreno Valley, but the Air Board were sharing the new rules about trucking and all the regulations that are now here and will be enforced in 2020. So I figured I'd bring you a gift, so you can be aware of the new rules that are here now and in the future because these are the questions you're going to be asking developers. What kinds of trucks are going to be coming into the city, so there are going to be changes. It was a packed house, and I talked to the CHP,

and I talked to the…..to the….another group that goes around testing the trucks for smoke. I saw the machinery, and they are out there. They are out there doing their job, and they will enforce the law. So the one thing that came to my mind that now it is going to make it harder for trucks, especially older trucks, to get registered in the State of California, especially in 2020. Starting in 2020, they must meet the standard or they cannot register their vehicles. So, from now on, they have up to be to 2010. So you have heard this before from a developer. He gave us this insight a few years back but, at that meeting, it came to light hearing it from the professionals that this is going to happen in our state. I looked at all the new equipment and all the new devices and all the new trucks, so there is going to be a big, big change, and one of the things that I wanted to bring and share with you, in the pamphlet, you see a rig. A lot of people see these trucks delivering merchandise, but you don't see them parked up against the supermarket. What you see are the smaller trucks. These truly are the main trucks that you see in our city. These are the ones that deliver all over the place. This is what people see and, what I want you to know as you go on in the future, is don't let people cause you to have a mistake between two trucks. Okay? You're not going to see 4200 trucks…trips of these kinds of big trucks in the city. You're going to see a lot of little ones, especially through the holiday. Big trucks come in. They park at some of these places where they dispatch the trailer. Then these small trucks pick them up and then bring them into the city because the city has pounds. They are not allowed to come into the city over 14,000 pounds or so. So you're not going to see big rigs, unless they are on the….how do you call it…on the truck lane. If they are in the truck lane, they are allowed to be there because I followed them, and I saw what they did, so they have it pretty well controlled in our city. So these are the new rules that are coming. Thank you.

CHAIR BARNES – Thank you, Mr. Brugueras. Any more public speakers?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – No.

CHAIR BARNES – Alright.

NON-PUBLIC HEARING ITEMS

None

CHAIR BARNES – Moving on next, Non-Public Hearing Items. It appears we have none.

PLANNING OFFICIAL RICK SANDZIMIER – We have none.

CHAIR BARNES – Excellent, moving along. Now to the Public Hearing portion of the meeting. Case 1, PEN17-0164. The Applicant is Westcore II Newhope, LLC. Do we have a Staff Report?

PUBLIC HEARING ITEMS

1. Case:	PEN17-0164
Applicant:	Westcore II Newhope, LLC
Owner:	Westcore II Newhope, LLC
Representative:	Nick Markos, Westcore
Location:	22705 Newhope Street
Case Planner:	Claudia Manrique/Chris Ormsby
Council District:	1
Proposal:	Modification to Plot Plan approval to revise the exterior colors of an existing warehouse building.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-37, and thereby:

1. **RECOGNIZE** 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** PEN17-0164 subject to the attached Conditions of Approval included as Exhibit A.

PLANNING OFFICIAL RICK SANDZIMIER – Chairman Barnes, Members of the Commission, I'll be giving the presentation this evening. I know we have a very light agenda, and this is the only thing we have, but it is important. So it is a modification to a Plot Plan to basically consider the revised exterior colors for a

large building that is very close here to City Hall down at the end of the street here at Veterans Way and Newhope. The actual Applicant is Westcore Newhope, LLC. They were invited to the meeting this evening. I'm not sure why they didn't attend. They didn't call me or let me know, but they are aware that there is a meeting this evening. Westcore recently bought the building and started to initiate a change of the paint. They told me they are investing about $65,000 to paint the building; however, the building caught several people's attention. It was brought to my attention, you know, are they allowed to do such a drastic change? Because, if you've driven by the building, you'll see that it is much more bright. It is a white color, and they are incorporating their blue corporate color, which is kind of a blue or a purplish. This may be the Applicant here. In any event, the original building, which is about 366,000 square feet, was approved in 2013, and it had a slate of colors that were approved for the project. The project site on the image that is shown up here on the screen is located just south of Alessandro Boulevard. It is visible from both at Alessandro Boulevard and Cactus, because of its size, and it is book-ended by Veterans Way on the east and Ellsworth on the west. It is the building about in the center of the building there. When this project was approved, it required a Change of Zone, and it required a Plot Plan, and the Change of Zone required both the Planning Commission consideration and the City Council consideration. So ultimately the Plot Plan, which was approved, did include a slate of colors. This is the proposed colors that the Westcore would like to change the building to. It is much more bright and white. It is, like I said, has a blue color band that is going to be at the base of the building and then again at the top of the building. The glazing on the building, which is the windows, they are not going to be changing. Then the highlights on the building, I believe they are integrating some form of a silver or grey, so it will be a white with a silver and the blue. The image up here is maybe a little difficult to see, but we went out and we looked at what the existing buildings around the site looked like today and the approach. If you're coming from along Veterans Way from Cactus, the bottom image there shows grey and white smaller-scale business-park buildings and then it transitions to the beige earth-tone colors of the large Westcore Building today. Off Ellsworth at Goldencrest, the image maybe doesn't pick it up, but it also a white with grey and a little bit of beige colors to it. This is the color of the existing building. The building here reflects more of the colors that are between this building and Alessandro in the commercial center. We have a commercial center that has a couple of fast-food restaurants in it. There are small office buildings that were used for educational purposes, and we recently had a banquet hall that was finished in that complex. They all have earth-tone colors, and they are also using some stone veneer on the buildings, and that is also similar to the color palette on the retail center that it off Ellsworth at Alessandro and just west of the site. These images, which are in your Staff Report, were some pictures that we took of the building to show how the color is changing because the Applicant had already started to paint to the building. We asked him to stop. They are anxious to have this action taken by the Planning Commission, so that they can hopefully resume painting the building and complete it, and they said that they have

brokers and other people that they would like to invite to the building to start trying to market it for new tenants. So we tried to expedite it to get to the Planning Commission as soon as possible. The images that I left on your dais this evening are the stamped approved plans from the original approval, and it also includes, on the other side, Conditions of Approval P2. And, if you read Condition P2, it said that the site shall be developed in accordance with the approved plans on file with the Community and Economic Development Department. Since these plans were stamped and approved, and they had a color palette that was actually approved by this body, that is the reason he has to come back to you for this modification. A building of this size can make a significant impact on the environment and in this area, because it was a Change of Zone going from what allowed 50,000 square-foot buildings to allow the 366,000 square-foot buildings; the colors and materials were a point of consideration in doing that approval. If you look at this image that I copied for you, it does look like it has some greens in it, and so I looked at that with the staff, and we were trying to understand why doesn't the building look green today? So we looked at some the colors. So the other sample you have in front of you today is another sheet. It's what we took off the internet, and it is what Nantucket Dune actually is supposed to look like, and all we could conclude is that the copy quality, what was ended up being put in our file, must have been distorted by our color copier at the time, but this Sherman Williams Nantucket Dune, which shows up as kind of a foam green actually was intended to be a beige, which is what is on the building today. So that's why these were put there just for explanation purposes. With that, the description of the background of the building and the reason it is here today, we found that the project is exempt from CEQA, and we are asking for the Planning Commission to consider the consideration for a Categorical Exemption as part of your decision and, if you agree and wish to approve the modifications, then we would ask you to approve Resolution 2017-37 and thereby approve the Amended Plot Plan PEN17-0164. That concludes our presentation, and I'm here to answer any questions.

CHAIR BARNES – Thank you, Rick. Would the Applicant like to make a comment?

APPLICANT NICK MARKOS – Nick Markos with Westcore Properties, owner of the subject property. We appreciate Mr. Sandzimier working with us to get this put on the agenda so quickly. We started painting and didn't realize that it required other approvals from the City, so we do apologize that we didn't go through the normal review process for this, but it is critical to our business plan to repaint this building. We recently purchased it in August. It has been vacant since it was delivered in right around early 2015. We feel that it is a great building, but we feel that it could use a refresher, and we have used this similar type of paint palette on other buildings that we have in our portfolio, and it has done quite well and been well received in the market. We are looking to do this quickly because we would like to start marketing the property. We already have

it marketed for lease; however, we would like to finish this and then start bringing in tours. So thank you, again, for hearing this tonight.

CHAIR BARNES – Thank you. Any questions of Staff or the Applicant? Alright, well, Rick.

PLANNING OFFICIAL RICK SANDZIMIER – No, go ahead.

CHAIR BARNES – You're right. So, if there are no further questions, then we will open the Public Hearing, and do we have any speakers?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – Yes, we have Rafael Brugueras.

CHAIR BARNES – You're going to have to get a big sign….Public Comments. Thank you.

SPEAKER RAFAEL BRUGUERAS – Good evening again, Commissioners, Staff, and our guests. I went by that place, and it took me a while to find it because my GPS threw me off. It's so easy to find it you go down Alessandro, make that quick left, and then it is right there. I went from one end of the building and to the other, and I looked at everything. I looked at the two-tone colors in the neighborhood, the basic ones that we always pick. Okay, the ones right behind you, that same type of color that we pick. So, anyway, I went and I took pictures because I wanted to make sure that…because when I took a copy from my printer, it looked like a lavender color, so I wasn't sure what color he was thinking of. I thought it was going to be a brighter color but when I got there and I looked at the original one that you saw and then I saw the one. I know it's far, but it is a beautiful picture. It's a beautiful grey with the white trimming, the nice blue on the bottom and it goes….if you can see it…it goes all the way back. It's a real, real nice white bright. It shows the building real well, so I'm thinking for the colors that he's using could be something with the sun hitting the wall, the white. That's what I thought of, but it really stands out real pretty, especially if he is using the color….because I just asked him. I wanted to make sure, before I speak, that it was going to be the one I liked, not the old one. So here's the old one, and here's the new one. The new one looks real, real good. I mean, I can give you my camera and you can look at it because, if you go by there, you'll see beautiful charcoal grey with the nice white trimming, the real nice bright blue on the bottom, the royal-type blue, and then it is all white, real clean. It's a real nice clean color. It's in a nice location, that building. It will stand out real well if you go look for it because, if you tell somebody to look for the brown building, you can get lost in there because I did. So, if he said look for the blue, grey, and white building, you can find it real fast, I hope, real quick. So it's a nice project. I hope it gets approved, so we can start making the city look brighter instead of…I mean, there's nothing wrong with earth-tone colors, but we have so many of

them. They all look alike. We need to change a little bit, just a little bit. Thank you so much.

CHAIR BARNES – Thank you, Rafael. Any other speaker slips?

ADMINISTRATIVE ASSISTANT ASHLEY APARICIO – No.

CHAIR BARNES – Alright. With that, we will close the Public Hearing, and move onto deliberation. Any questions? Commissioner Lowell.

COMMISSIONER LOWELL – I have one. In the Staff Report, it says, as part of the original project of approvals for the Change of Zone and Plot Plan, colored elevations that reflected the current color scheme represented to both the Planning Commission and City Council and were presumed to have been an integral consideration for approval of the project; however, it is noted that the color scheme was not included as a specific Condition of Approval of Mitigation Measure for the project. If anybody wants to change the color of their building, they have to come back in front of the Planning Commission and City Council?

PLANNING OFFICIAL RICK SANDZIMIER – Not exactly. If they are changing the colors and they are consistent with the original colors, our Municipal Code does identify use of earth-tone colors in most of our commercial centers and in our industrial complexes. There is an allowance for more whites and the greys. In this particular instance, this building was a Business Park, and it was changed to Light Industrial, which basically allowed it to have kind of a….it was on a transition spot. I mean, on the north side of Newhope is a commercial center and, on the south side where this building exists, is now Light Industrial. So the fact that this plan was actually stamped and approved and the colors were what were actually adopted is why I felt that it was important to bring it back because it was such a large building. The other thing we were trying to reflect in that statement in the Staff Report is that the colors themselves were not spelled out in the Conditions of Approval, but Condition P2 does say that the building must comply with the approved plans that are on file. So that is why I gave you a copy of this condition and so because this is the stamped plan and those are the approved colors and because it did come through a hearing, our Municipal Code says that any modification to a Condition of Approval is subject to going back through the original approval body. The original approval body in this particular case is…..ultimately could be the City Council, but we're not asking for it to go that far. We believe that we can exercise some discretion to bring it back just to the Planning Commission at this point. In other instances where the ultimate approval body might have been the Planning Commission and not the City Council, we may exercise the right to delegate that responsibility to the Community Development Director in some commercial centers and in the industrial complexes. I think it does….the code does allow for that discretion, so that's the one nuance here that it….this was a particular important decision by the City. I wasn't here at the time that it was approved but, from what I heard

from the Staff, the color selection was an important consideration, the landscaping, and that transition spot. We've had favorable comments on the existing building. Some people do like the color, but beauty is in the eye of the beholder. I also thought that coming here this evening might be helpful if we could get your take on how you would like to see us address colors on projects. We have lots of projects that are going to be coming through. We do pay particular attention to them. The buildings across the street to the east of us are adopting more of a cream or off-white colors, not such bright whites. I noticed along the 215 in the March JPA areas, they use a lot more browns and earth-tone colors. I noticed, when you come off Cactus from the 215 where you can see this building, you're seeing most of those large buildings are using creams and browns or earth-tone colors. In the south end of town, they are also starting to use some more off-whites, with maybe a green or a greyish brown in some areas. The Proctor Gamble building is probably the one that matches this one the closest, which is a very, very bright white building, and then the other one that matches this building very closely that Westcore did point out was the Federal Mogul building, which is right off Cactus right behind us, which is a very stark white with a bright blue band around the top, so it is……

COMMISSIONER LOWELL – It's on Sketchers too….

PLANNING OFFICIAL RICK SANDZIMIER – And Sketchers is just a white building for the most part. That particular developer does not like what you call is the racing stripes. He likes to have a clean image and, if you look at the specific plan that was approved for the World Logistics Center, he was very particular that project did not want to have buildings that felt like they had kind of a patchwork on them, so he thinks that…..again, beauty is in the eye of the beholder, but his vision for that area of town was going to be a different type of architecture, a different type of pain schemes. So we have the white, grey, and the blue in other areas of the town. We have lots of beiges, and so we're just looking to you guys to tell me if this is important enough to you guys or not so.

COMMISSIONER LOWELL – Well what I was going to extrapolate to is, most of the projects that come in front us, including Tentative Tract Maps, Parcel Maps, these Plot Plans, generally have some sort of architecture, have some sort of elevation and color scheme. How far reaching does this go? So, in my neighborhood, we had five different plans and three different elevations and multiple color schemes. If my neighbor wants to change the color of his house to something else, because most of the Conditions of Approval have a P2 or something along with that, to conform to the approved plans, does that homeowner have to come back and get approval from the City to paint the house? How far down does that go?

PLANNING OFFICIAL RICK SANDZIMIER – We have not…we have not exercised that. We have not asked those homeowners to come back us. We believe that the neighborhoods will somewhat self-regulate. If there is a

homeowners association that has color and architectural guidelines, that's one of the options. There are some neighborhoods that don't have that level of detail. We just don't….we don't drill down to that level at this point.

COMMISSIONER LOWELL – Okay, thanks.

CHAIR BARNES – Any other comments?

VICE CHAIR KORZEC – I would just like to say that, in the design industry, color palettes change every seven years. You look at the color palettes in your home, and you're always refreshing and changing. The earth-tones are kind of phasing out, and these new brighter colors are coming in. I think it's a beautiful color scheme, and I think it really brings the building out, the elements, because industrial buildings can be really boring. But I think the design of this and the way the color is put down in the new palette makes it look a lot more attractive for the client, and I would like to see more buildings around here be brighter than the regular earth tones. I love it.

CHAIR BARNES – Personal observation. I'm reluctant to tell people what to do, at least to this extent, with their property. I think variety is good, and I would not normally weigh in on the color of a building unless it was really, really bad. So, yeah, in the future, it is not something I am particularly concerned with. I would like the market to drive how buildings look and all that because we want to welcome all comers and people that have new ideas. We don't want to push them away by being too restrictive. I don't have a problem with it at all, and I generally don't for future.

COMMISSIONER BAKER – I personally think it's a great project, and I would like to see us move forward with it. Let's get it going.

CHAIR BARNES – Oh yeah, yeah, I don't think this is a big deal. So anybody want to make a motion?

COMMISSIONER LOWELL – First off, I think we should make all developers paint half the building so we can see what it looks like and then make a decision. I think that'd be a great idea. I'm sorry.

CHAIR BARNES – That doesn't answer my question.

COMMISSIONER LOWELL – I'll make a motion to approve Resolution No. 2017-37 recognizing that this item is exempt from CEQA and approve PEN17-0164 subject to the attached Conditions of Approval.

COMMISSIONER BAKER – I'll second.

CHAIR BARNES – Alright. We have a motion from Commissioner Lowell and a second from Commissioner Baker. Please vote. Waiting on Commissioner Sims. The motion carries 4-0. Do we have a wrap-up from Staff?

Opposed – 0

Motion carries 4 – 0

PLANNING OFFICIAL RICK SANDZIMIER – The action you did take is an appealable action. If any interested party would like to file an appeal, they can file an appeal through the Community Development Director within 15 days of this action. If an appeal is filed, it will be taken forward to the City Council within 30 days for consideration.

CHAIR BARNES – Thank you, Rick. Let's see. I think that pretty much covers it.

OTHER COMMISSION BUSINESS

PLANNING COMMISSIONER COMMENTS

CHAIR BARNES – Any Commissioner comments?

STAFF COMMENTS

CHAIR BARNES – Any Staff comments?

PLANNING OFFICIAL RICK SANDZIMIER – Actually, I would like to just, under Staff Comments, just talk about this particular issue a little bit further. Having heard the dialogue from the Commission, I think it would be helpful if you would give us a little bit of direction. What I'm taking from this is maybe you would be okay with us delegating this sort of a decision to the Community Development Director, and we could make it at the Staff level if we thought it was an issue. I also want to point out that, not too long ago, probably within the last four or five months, the Avocado Burger restaurant across the street at Frederick and Alessandro was repainted, and it was actually repainted a very awkward yellowish-green color, and we did get some comments about it, and we reached out to them. As a courtesy, we wrote them a letter and said, hey, well our Code does have some guidelines on making sure that buildings look compatible with their adjacent buildings of the neighborhood for the good of the esthetics of the

community. When we actually contacted the manager, the manager's feedback was, you know what, we really don't like the color anyways, so we appreciate you telling us, and we'd love to work with you. We want to be good neighbors, and they ended up painting that building pretty quickly, and it actually blends in with the neighborhood a little differently than that yellow. So we, as Staff, we're just trying to keep the city going in a direction where things will likely fit. We don't want to overstep our bounds, and we don't want to tell people you can't have some of their own interests expressed in their homes and stuff. So I just wanted to ask if you guys could give us some parameters. When you say that you don't want to hear about colors, I understand that. I'll take that back and we won't bring colors here but, if there are some guidelines if they are really bright, or if they are zebra striped, or if they are…I mean, what are you asking us to look for?

COMMISSIONER LOWELL – I think, as a failsafe, just bring it in front us of, just to cover our bases, to cover your bases. It opens up a discussion in case some neighbors don't want it. It gives the neighbors a forum to speak, but generally I don't think colors are a big deal.

PLANNING OFFICIAL RICK SANDZIMIER – Okay, okay.

VICE CHAIR KORZEC – Well I think if you stick to neutral palettes (whites/beiges) with accents of different colors. I think if you're going to go for a purple building or a red building, which would be my choice but not the neighborhoods choice, so if it's something that's just so awkward and so off, then I would bring it to us but, as long as it is in those color bands, especially the brighter ones, I would find appealing, but no zebra stripes.

PLANNING OFFICIAL RICK SANDZIMIER – So I appreciate the feedback, and I apologize this was the only thing on the agenda but, to me, if was helpful for me and the Staff. So thank you very much.

CHAIR BARNES – Yeah, the only observation I was going to make is, unfortunately I think it is kind of a very fine line and you don't know until you actually see it in the flesh and so, again, I would be reluctant to be overly controlling. I would err on the side of caution, not tell people what to do, and let the market and the public speak out…..yeah, you're going to strike out occasionally, but they only way that you can break new ground and push the envelope is to try things. They don't always work, but I think it's worth the risk, as opposed to dictating what people do with those types of things, whether it is architectural or color. I like the variety.

VICE CHAIR KORZEC – Me too.

CHAIR BARNES – At least the attempt at it. Any other comments?

COMMISSIONER BAKER – I'm good.

CHAIR BARNES – Well congratulations to the Applicant. You can get the rollers out and get painting. Thank you, Staff for the report.

COMMISSIONER LOWELL – Everybody have a happy Thanksgiving.

VICE CHAIR KORZEC – Yes.

CHAIR BARNES – Yeah, oh, that's right.

ADJOURNMENT

CHAIR BARNES – We will, at this point, adjourn the meeting to the next regular-scheduled meeting on December 14, 2017. Is that correct, Rick?

COMMISSIONER BAKER – Yes.

CHAIR BARNES – Alright, the meeting is adjourned. Thank you.

NEXT MEETING

Next Meeting: Planning Commission Regular Meeting, December 14, 2017 at 7:00 PM, City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

_____ _____

Richard J. Sandzimier Date
Planning Official
Approved

Jeffrey Barnes
Chair

Date

PLANNING COMMISSION

STAFF REPORT

Meeting Date: December 21, 2017

PLOT PLAN FOR A PROPOSED 4,236 SQUARE FOOT DONUT SHOP/CONVENIENCE STORE

Case:	PEN16-0107 Plot Plan
Applicant:	Gary Wang & Associates
Owner:	Yum Yum Donut Shop Inc.
Representative:	Grachel Cornelio of Gary Wang & Associates
Location:	Northwest corner of Alessandro Boulevard and Day Street
Case Planner:	Gabriel Diaz
Council District:	1

SUMMARY

The applicant, Gary Wang & Associates, is seeking approval of a Plot Plan to allow for the development of a 4,263 square foot Winchell's Donut shop and convenience store on a 0.6 acre site located at the northwest corner of Alessandro Boulevard and Day Street. The project as designed has been found to be consistent with the objectives, goals and policies outlined in the City's General Plan and Municipal Code, as well as being compatible with the existing and planned land uses in the project area. The project is being recommended for approval.

PROJECT DESCRIPTION

Project

The applicant, Gary Wang & Associates, submitted a Plot Plan application for a 4,263 square foot donut shop and convenience store. The Plot Plan has been evaluated particularly against General Plan Objective 2.4, which calls for commercial areas within

the City to be conveniently located, efficient, attractive, and have safe and easy pedestrian and vehicular circulation in order to serve the retail and service commercial needs of Moreno Valley residents and businesses. Staff has confirmed the proposed project meets this goal and does not conflict with other goals, objectives, policies, or programs set forth in the General Plan.

The architectural design of the building strives to achieve an attractive and appealing structure that will be located at a prominent street corner, Alessandro Boulevard and Day Street. The building has a contemporary modern style, includes an elongated pitched roof and a prominent tower feature at the building's main entrance. Exterior finishes are proposed to include a blend of earth tones, veneer stone treatments, fiber cement vintage wood, anodized steel awnings, and a standing seemed metal roof on entrance tower element.

Staff has found the proposed project should add economic vitality and architectural character along this portion of Alessandro Boulevard, which is highly desirable given its proximity to this westerly gateway to the City. The applicant has worked closely with staff in achieving an enhanced design of the project.

Site

The project site is located at the northwest corner of Alessandro Boulevard and Day Street. The project topography is relatively flat with a gentle downward slope from south to northwest. There are several mature trees along the western property line and some old tree stumps that have grown in to shrubs remain on the site. The site is small at 0.6 acre, and has no natural features such as rock outcroppings, water features or prior structures that might limit the developable area of the site. Public sidewalks along both the Alessandro Boulevard and Day Street frontages are in place. One wooden utility pole supporting overhead electrical utility is present along the Alessandro Boulevard frontage. The site has been cleared routinely for weed abatement.

The project site is comprised of two rectangular parcels of about the same size (Assessor's Parcel Number 263-230-012 and 263-230-013) totaling 0.6 acres. The current zoning designation for the project site is (CC) Community Commercial. The General Plan land use designation for the project site is (C) Commercial. The project has been conditioned by Public Works for the two parcels to be merged prior to building permits.

Surrounding Area

The project site is bounded to the south by Alessandro Boulevard and to the west by Day Street. The properties directly adjacent to the project site on the north and west are zoned community commercial (CC). The property to the north has been previously developed with residential units, which qualify as legal non-conforming uses and structures. A small grocery store, La Buena Market, is located to the immediate west of the site, and is operating consistent with the provisions of the Community Commercial (CC) zoning designation. To the south across Alessandro Boulevard, there is an existing self-storage facility. The current zoning designation is Community Commercial (CC). To the southeast across Alessandro Boulevard there is an existing warehouse

facility, and the current zoning designation is Industrial (I). The land immediately east of the site across Day Street is vacant and predominantly City owned land. It is zoned for multi-family residential up to 30 dwelling units per acre (Residential 30).

Access/Parking

Primary direct access to the proposed development will be from a driveway on Alessandro Boulevard and a driveway off of Day Street. Both driveways will be restricted to right-in and right-out movements only.

As proposed the project will exceed the Municipal Code requirements for parking. A total of 19 parking spaces are required. The project as designed provides 20 spaces including a carpool space and one fuel efficient vehicle parking space. The project as designed satisfies all parking requirements of the City's Municipal Code including ADA accessible parking and parking considerations for fuel efficient vehicles.

The driveways and interior drive aisles within the site have been reviewed and found to be adequate for truck maneuvering and turnaround for delivery trucks and trash pick-up. In addition the site has been found acceptable by the Fire Prevention Bureau for fire truck access.

Design/Landscaping

This project structures, parking and access infrastructure, as designed and conditioned, conform to all development standards of the Community Commercial zone and the design guidelines for a commercial use as required by the City's Municipal Code.

Furthermore, the project has been designed to meet required landscaped standards and landscaping objectives as set forth in the City's Municipal Code. The landscape elements of the project include the landscape setback areas along Alessandro Boulevard and Day Street, parking lot landscape, street trees and landscape treatments around the perimeter of the site.

REVIEW PROCESS

In accordance with the Municipal Code, the project was reviewed by the Project Review Staff Committee (PRSC) in May 2017. All staff comments generated throughout the multiple plan reviews for the project have been addressed and are reflected in the final project plans, Preliminary Water Quality Management Plan and through specific conditions of approval included as an exhibit to the recommended Resolution for the project. Given the project site's proximity to the March Air Reserve Base, the project application has been reviewed by the Riverside County Airport Land Use Commission (ALUC). Conditions of approval requested by the ALUC have been included in the exhibit to the recommended Resolution for the project.

ENVIRONMENTAL

The project has been reviewed in accordance with the latest edition of the California Environmental Quality Act (CEQA) Guidelines and staff has determined the project will not result in the potential for a significant effect on the environment and has determined

the project qualifies for a Class 32 exemption, Section 15332 of the CEQA Guidelines as an In-Fill Development.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on December 10, 2017. Public notices were sent to all property owners of record within 300 feet of the project site on December 7, 2017. The public hearing notice for this project was posted on the project site on December 8, 2017.

As of the date of report preparation, staff has received no phone calls or correspondence in response to the noticing for this project.

REVIEW AGENCY COMMENTS

Staff has coordinated with outside agencies on the review of the project. Conditions of approval have been included as requested by the Riverside County Airport Land Use Commission.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017- 43, and thereby:

1. **CERTIFY** that the proposed Plot Plan is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 32 Categorical Exemption, CEQA Guidelines, Section 15332 (In-Fill Development); and

2. **APPROVE** Plot Plan PEN16-0107 based on the findings contained in Planning Commission Resolution 2017- 43, subject to the conditions of approval included as Exhibit A of the Resolution.

Prepared by:
Gabriel Diaz
Associate Planner

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. Aerial Photo
3. Zoning Map
4. Resolution 2017-43
5. Conditions of Approval PEN16-0107
6. Riverside County Airport Land Use Commission COAs
7. Project Plans

8. Project Material Board

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: PEN16-0107 – Plot Plan

Applicant: Gary Wang & Associates
Owner: Yum Yum Donut Shop Inc.
Representative: Grachel Cornelio of Gary Wang & Associates
A.P. No: 263-230-012 and 263-230-013
Location: North-west corner of Alessandro Boulevard and Day Street
Proposal: A new 4,263 square foot Winchell's donut shop and convenience store on .6 acres of land.
Council District: 1

Environmental Determination: Exempt. The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines and it was determined that the project is consistent with all of the required conditions described in Section 15332 for a Class 32 Categorical Exemption. Therefore, a recommendation to find the project exempt from the provisions of the CEQA as a Class 31 Categorical Exemption, CEQA Guidelines, Section 15332 In-Fill Development Projects is being carried forward with the project.

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**

Attachment: Public Hearing Notice (2903 : PEN16-0107)

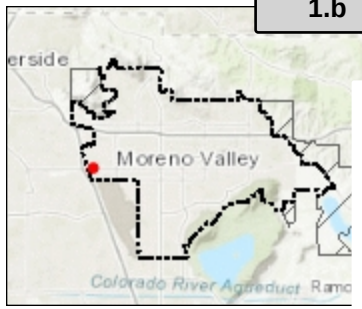
PLANNING COMMISSION HEARING

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

DATE AND TIME: December 21, 2017, 7:00 p.m.
CONTACT PLANNER: Gabriel Diaz
PHONE: (951) 413-3226

Upon request and in compliance with the Americans with Disabilities Ac of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct suc 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 t make reasonable arrangements to ensure accessibility to this meeting.

Aerial Photograph



Legend

- Public Facilities
  - Public Facilities; Employment Res Permanente Moreno Valley Medi Conference & Recreation Center
  - Fire Stations
- Parcels
- City Boundary
- Sphere of Influence

Notes

157.7 0 78.87 157.7 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

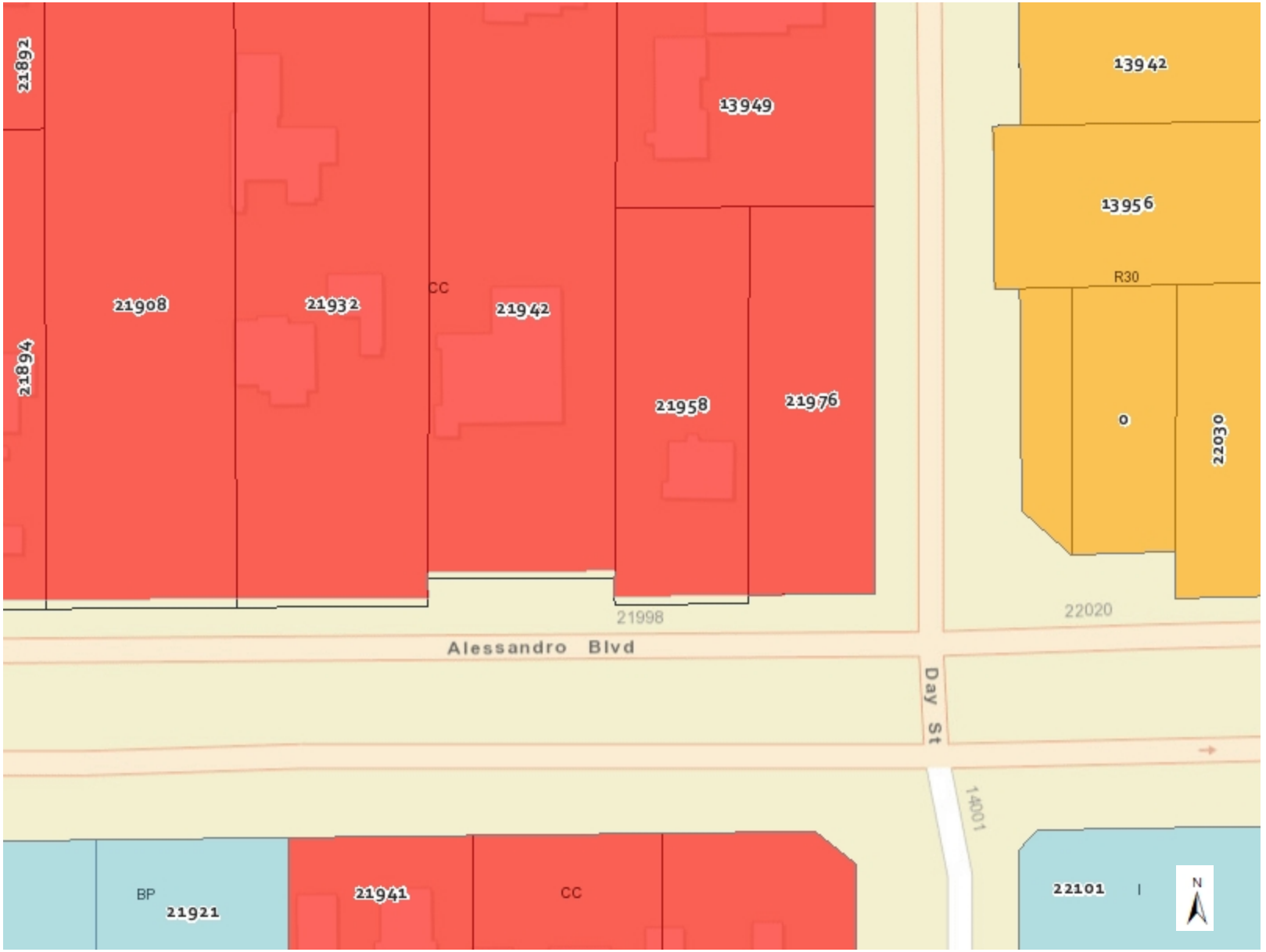
Print Date: 12/8/2017

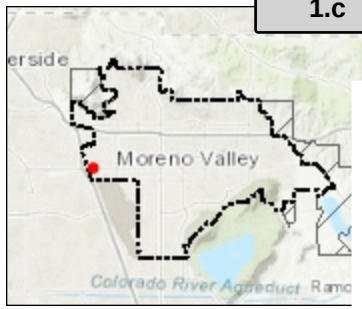
DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and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

Attachment: Aerial Photo (2903 : PEN16-0107)

MORENO VALLEY
WHERE DREAMS SOAR

Zoning Map





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

157.7 0 78.87 157.7 Feet

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Attachment: Zoning Map (2903 : PEN16-0107)

PLANNING COMMISSION RESOLUTION NO. 2017- 43

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING PLOT PLAN APPLICATION PEN16-0107 FOR DEVELOPMENT OF A 4,263 SQUARE FOOT DONUT SHOP AND CONVENIENCE STORE ON AN APPROXIMATELY 0.6 ACRE SITE LOCATED ON THE NORTHWEST CORNER OF ALESSANDRO BOULEVARD AND DAY STREET (ASSESSOR'S PARCEL NUMBER 263-230-012 AND 263-230-013).

WHEREAS, Gary Wang & Associates, has filed an application for the approval of Plot Plan PEN16-0107 for development of a 4,263 square foot Winchell's Donut shop and convenience store located on the northwest corner of Alessandro Boulevard and Day 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 Municipal Code, General Plan and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process 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 December 10, 2017; public notices were sent to all property owners of record within 300 feet of the project site on December 7, 2017; and the public hearing notice was posted on the project site on December 8, 2017; and

WHEREAS, on December 21, 2017, the Planning Commission held a public hearing to consider the application; and

WHEREAS, on December 21, 2017, the Planning Commission of the City of Moreno Valley made and issued an Environmental Determination that the project is exempt from the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et. seq.) under CEQA Guideline Section 15332, as a Class 32 exemption for In-Fill Development projects;

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 December 21, 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 4,263 square foot donut shop and convenience store on approximately 0.6 acre site. The General Plan land use designations for the project site is Commercial (C). The proposed development is consistent with General Plan Objective 2.4, which states "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 retail and service commercial needs of Moreno Valley residents and businesses."

   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 Community Commercial (CC). The primary purpose of the Community Commercial (CC) district is to provide for the general shopping needs of area residents and workers with a variety of business, retail, personal and related or similar services.

   The donut shop and convenience store use are permitted uses within the CC zone and would be compatible with and would not have a negative impact on other properties in the vicinity of the project location. The project is designed in accordance with the provisions of Section 9.04 Commercial Districts, Section 9.16 Design Guidelines of the City's Municipal Code. 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 donut shop and convenience store project 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 and one quarter mile from Fire Station No. 6. Therefore, adequate emergency services can be provided to the site consistent with General Plan Goal 9.6.2.

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 Community Commercial (CC) zoning.

The proposed donut shop and convenience store project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity. Planning staff has reviewed the request in accordance with the latest edition of the California Environmental Quality Act (CEQA) Guidelines and has determined that the project qualifies for an exemption under the provisions of the CEQA as a Class 32 Categorical Exemption, CEQA Guidelines, and Section 15332 for In-Fill Development Projects.

The Class 32 exemption applies to this project because the donut shop and convenience store project is consistent with the criteria identified below:

- The project is consistent with the applicable general plan designation and all applicable zoning designation and regulations.
- The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- The project site has no value as habitat for endangered, rare or threatened species.
- Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- The site can be adequately served by all required utilities and public services.

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 consistent with the Commercial (C) General Plan and Community Commercial (CC) zoning designations. Based on the project location at the prominent intersection of Alessandro Boulevard

and Day Street, the donut shop and convenience store will provide ease of access and convenience to motorists and residents.

The project will be compatible with the neighborhood market to the immediate west, and is zoned for commercial consistent with the Community Commercial zoning to the north.

Overall, the proposed donut shop and convenience store development has been found to be consistent with the objectives, goals and policies outlined in the City's General Plan, as well as being compatible with the existing and planned land uses in the project area.

This project, as designed conforms to all development standards of the Community Commercial (CC) zone and the design guidelines for commercial developments prescribed in the City's Municipal Code and City Landscape Standards. The architectural design of the building strives to achieve an attractive and appealing image by locating the building at the street corner which is highly visible from of Alessandro Boulevard and Day Street. The building has a contemporary modern style along with elongated pitched roofs, and a prominent entrance feature. The entrance to the building has a tower type element that leads customers to the main entrance from the parking lot.

The proposed project will add economic vitality and architectural character along the Alessandro corridor in proximity to the westerly gateway to the City.

As designed and conditioned the proposed donut shop and convenience store project 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 PEN16-0107, 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. 2017-43, and thereby:

1. **CERTIFY** that this item is exempt from the provisions of the California Environmental Quality Act (CEQA), as a Class 32 Categorical Exemption, CEQA Guidelines, Section 15332 (In-Fill Development); and

2. **APPROVE** Plot Plan PEN16-0107 based on the findings contained in this resolution, and subject to the attached conditions of approval included as Exhibit A.

APPROVED this 21st day of December, 2017.

AYES:
NOES:
ABSTAIN:

_____
Jeffrey Barnes
Chair, Planning Commission

ATTEST:

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

APPROVED AS TO FORM:

_____
City Attorney

Exhibit A

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Plot Plan (PEN16-0107)

EFFECTIVE DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. Any expansion to this use or exterior alterations will require the submittal of a separate application(s) and shall be reviewed and approved under separate permit(s). (MC 9.02.080)

2. 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)

3. 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. (MC 9.02.230)

4. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

5. 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 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)

6. 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.

Special Conditions

7. Plot Plan PEN16-0107 has been approved for the development of a 4,263 square foot Winchell's donut shop and convenience store project with twenty parking spaces on a 0.6 acre site. The project site is comprised of two parcels, Assessor's Parcel Number 263-230-012 and 263-230-013 located at the northwest corner of

Alessandro Boulevard and Day Street. The project as designed is consistent with the City's General Plan and the Municipal Code.

8. Plot Plan PEN16-0107 shall comply with the Riverside County Airport Land Use Commission (ALCU) conditions letter dated November 12, 2015.

Prior to Grading Permit

9. 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 6 foot high solid decorative block perimeter wall with pilasters and a cap shall be required adjacent to all residential zoned areas.

B. 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.

C. 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.

10. Prior to issuance of grading permits, the location of the trash enclosure shall be included on the plans.

11. Prior to the issuance of building permits, the developer shall provide documentation that contact was made to the U.S. Postal Service to determine the appropriate type and location of mailboxes.

12. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved 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 Requirements and shall include:
A. Drought tolerant landscape shall be used.
B. Street trees shall be provided every 40 feet on center in the right of way.
C. 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.
D. Enhanced landscaping shall be provided at all driveway entries and street corner locations The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
E. Landscaping on three sides of any trash enclosure.
F. All site perimeter and parking lot landscape and irrigation shall be installed prior

to the release of certificate of any occupancy permits for the site.

13. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

14. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

15. 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)

16. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. 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.

17. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

<u>Prior to Building Final or Occupancy</u>

18. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

19. Prior to building final, Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

20. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC

9.080.070).

Building Division

21. 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.

22. 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.

23. Contact the Building Safety Division for permit application submittal requirements.

24. The proposed project will be subject to approval by the Box Springs Mutual Water Company and all applicable fees and charges shall be paid prior to permit issuance. Contact the water company at 951.653.6419 for specific details.

25. Any construction within the city shall only be completed between the hour 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 (Municipal Code Section 8.14.040.E).

26. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

27. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

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

29. The proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

30. 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.

31. 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)

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

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

33. 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.

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

35. 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.

36. 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

FIRE DEPARTMENT

Fire Prevention Bureau

37. 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])

38. Prior to issuance of building permits, plans specifying the required structural

materials for building construction in high fire hazard severity zones shall be submitted to the Fire Prevention Bureau for approval. (CFC, 4905)

39. 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 and rear access locations. The numerals shall be a minimum of twelve inches in height. (CFC 505.1, MVMC 8.36.060[I])

40. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 105)

41. 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)

42. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

43. 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)

44. 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)

45. 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.

46. 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.

47. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

48. 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])

49. 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. 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)

50. 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)

51. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4)

52. 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)

53. 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)

54. 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

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

56. All applicable inspection fees shall be paid.

57. 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)]

58. 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]

59. The final approved conditions of approval (COAs) issued by the Planning Division shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plans.

60. 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.

61. 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.

62. In the event right-of-way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right-of-way in accordance with the Land Development Division's administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right-of-way or offsite easements and complete the improvements at such time the City acquires the right-of-way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right-of-way or easement acquisition. [GC 66462.5]

63. 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]

64. The tentative map, master plot plan, plot plan, or conditional use permit 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 Plan Approval

65. 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:

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.

66. 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.

67. 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.

68. 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.

69. The developer shall pay all remaining plan check fees.

<u>Prior to Grading Permit</u>

70. 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)]

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

72. 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)]

73. 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]

74. The developer shall pay all applicable inspection fees.

75. Prior to the payment of the Development Impact Fee (DIF), the developer may enter into a DIF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement prior to the timing specified above, no credits will be given. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

76. Prior to the payment of the Transportation Uniform Mitigation Fee (TUMF), the developer may enter into a TUMF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement by the timing specified above, no credits will be given. The developer shall pay current TUMF fees adopted by the City Council. [Ord. 835 § 2.1, 2012] [MC 3.44.060]]

Prior to Improvement Plan Approval

77. 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 otherwise approved by the City Engineer.

78. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

79. 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.

80. The developer shall pothole to determine the exact location and elevation of existing underground utilities and incorporate the results into the design of the plans. The developer shall coordinate with all affected utility companies and bear all costs of utility relocations.

Prior to Building Permit

81. 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.

82. All outstanding fees shall be paid.

83. 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.

84. The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

85. 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.

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]

86. 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.

87. 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.

88. 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.

89. 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;

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 drawing if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

90. Prior to approval of the F-WQMP, the WQ BMPs shall be adequately sized for both the interim and ultimate condition for this project.

91. Prior to grading plan approval, the following shall be shown on the plans and dedications made via separate instrument and submitted to the City for review and approval:

i) A 4-foot pedestrian right-of-way dedication behind all driveway approaches per City Standard MVSI-112C-0.

ii) A 14-foot right-of-way dedication on the north side of Alessandro Blvd. per City Standard MVSI-101A-0 (134-foot RW / 110-foot CC) along the project's frontage.

iii) A 14-foot right-of-way dedication on the west side of Day Street per City Standard MVSI-105A-0 (88-foot RW / 64-foot CC) along the project's frontage.

92. Prior to Occupancy, the existing power pole that is in conflict with the proposed driveway location on Alessandro Blvd will need to either be relocated or undergrounded. If the developer chooses to relocate the power pole, in-lieu fees will need to be paid per MVMC 9.14.130.

93. Prior to Building Permit issuance, the project shall submit a Lot Line Adjustment to combine the two existing parcels into one parcel.

Special Districts Division

94. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

95. 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.

96. This project is located within the Edgemont Community Services District for

streetlight services. Coordination of streetlight funding requirements should be made with the Edgemont Community Services District at Edgemont Community Services District, P. O. Box 5436, Riverside, CA 92514. Phone: 951.784.2411.

97. The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services). All assessable parcels therein shall be subject to the annual parcel tax for Zone A for operations and capital improvements.

98. 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.

99. This project is conditioned to provide a funding source for the following special financing program(s):

a. Landscape Maintenance Services for median landscaping on Alessandro Blvd.

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 and prior to acceptance of any improvements.

100. 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.)

101. 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.)

102. Submit an acknowledgement from Edgemont Community Services District confirming they have accepted all street lights required to be installed by this project into its system for ongoing maintenance, have received a deposit and that the proceedings for the annexation or creation of a new Zone, by which the streetlights would be maintained, has been completed.

Transportation Engineering Division

103. Alessandro Boulevard is designated as a Divided Major Arterial (134'RW/110'CC) per City Standard Plan No. MVSI-101A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

104. Day Street is designated as a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility. Communication conduits along project frontage shall be required per City Standard Plan No. MVSI-186-0.

105. 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:

- Alessandro Boulevard driveway: Right-in and right-out access allowed.
- Day Street driveway: Right-in and right-out access allowed.

106. Prior to final approval of any landscaping or monument sign plans, the project plans shall demonstrate that sight distance at the project driveways conforms to City Standard Plan No. MVSI-164A, B, C-0.

107. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for Alessandro Boulevard and Day Street.

108. Prior to issuance of a Building Final or Certificate of Occupancy, all approved signing and striping shall be installed per current City Standards

109. Prior to issuance of encroachment permits for any works within the City of Moreno

Valley right-of-way, construction traffic control plans shall be prepared by a qualified, registered Civil or Traffic engineer and submitted for plan approval

PARKS & COMMUNITY SERVICES DEPARTMENT

110. PCS-GC-2 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.

AIRPORT LAND USE COMMISSION
RIVERSIDE COUNTY

County Administrative Center
4080 Lemon St., 14th Floor
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

November 12, 2015

Mr. Gabriel Diaz, Associate Planner
Planning Division
City of Moreno Valley Community Development Department
14177 Frederick Street
Moreno Valley CA 92553

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW
File No.: ZAP1159MA15
Related File No.: PA14-0013 (Plot Plan)
APN: 263-230-012; 263-230-013.

Dear Mr. Diaz:

On November 12, 2015, the Riverside County Airport Land Use Commission (ALUC) found City of Moreno Valley Case No. PA14-0013, a proposal to develop a 4,750 square foot retail building for a donut/convenience store on two contiguous parcels with a combined net area of 0.61 acre located at the northwesterly corner of Alessandro Boulevard and Day Street, **CONSISTENT** with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to the following conditions:

CONDITIONS:

1. 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.

2. The following uses 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 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.

(e) Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, places of assembly, noise sensitive outdoor nonresidential uses and hazards to flight.

3. The attached notice shall be given to all prospective purchasers of the property and tenants of the building, and shall be recorded as a deed notice.

4. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.

5. No detention basins are depicted on the site plan. 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. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature.

If you have any questions, please contact Russell Brady, Airport Land Use Commission Contract Planner, at (951) 955-0549, or John Guerin, Airport Land Use Commission Principal Planner, at (951) 955-0982.

Sincerely,
RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

John J. G. Guerin

John J. G. Guerin, Principal Planner,
for Edward C. Cooper, ALUC Director

Attachments: Notice of Airport in Vicinity

cc: Arche Del Rosario, Gary Wang & Associates (representative/payee)
Michael Heinemeyer, Yum Yum Donuts (applicant/landowner)
Denise Hauser or Sonya Pierce, March Air Reserve Base
Gary Gosliga, Airport Manager, March Inland Port Airport Authority

Y:\ALUC\AirportCaseFiles\March\ZAP1159MA15\ZAP1159MA15.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)

VICINITY MAP

Winchell's

NEW CONSTRUCTION
FREE STANDING CONVENIENCE STORE
21960 ALESSANDRO BOULEVARD
MORENO VALLEY, CA 92553

SHEET INDEX

ISSUE NO.		1	2	3	4	5	6	7
DATE AND REASON FOR ISSUE								
SHEET NO.	DESCRIPTION							
TITLE								
T-100	TITLE SHEET, SHEET INDEX, VICINITY MAP, PROJECT SUMMARY							
CIVIL / LANDSCAPE								
C1	CIVIL TITLE SHEET							
C2	GRADING							
C3	LID PLAN							
C4	SIGHT DISTANCE							
C5	DETAILS							
LANDSCAPING								
L1	PLANTING PLAN							
GENERAL INFORMATION								
G-100	GENERAL NOTES							
G-101	GENERAL NOTES							
G-105	CONDITIONS OF APPROVAL							
G-110	ACCESSIBILITY NOTES							
G-111	ACCESSIBLE NOTES							
G-112	ACCESSIBLE DETAILS							
ARCHITECTURAL								
A-001	EXISTING SITE PLAN							
A-002	ENLARGED SITE PLAN							
A-003	TRASH ENCLOSURE PLAN & DETAILS, MISC, SITE DETAILS							
A-100	FLOOR PLAN							
A-101	REFLECTED CEILING PLAN							
A-102	ROOF PLAN							
A-200	EXTERIOR ELEVATIONS							
A-201	EXTERIOR ELEVATIONS							
A-300	BUILDING SECTIONS							
STRUCTURAL								
MECHANICAL								
ELECTRICAL								
PLUMBING								

PROJECT SUMMARY

ZONING / BUILDING DATA

ZONE: COMMERCIAL
PARCEL NUMBER: 263-230-013 & 263-230-012
OCCUPANCY: M (RETAIL)
CONSTRUCTION TYPE: V-B FULLY SPRINKLERED
LOT AREA: 26,917 SQ.FT. (0.617 ACRE)
GROSS AREA OF WORK: 4,263 SQ.FT.
TOTAL NUMBER OF FLOORS: 1 STORY
NUMBER OF EXITS REQUIRED: 2
NUMBER OF EXITS PROVIDED:2

APPLICABLE CODES:

2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA FIRE CODE
MORENO VALLEY CITY ORDINANCE

OCCUPANCY DATA

AREA		OCCUPANT LOAD	
SALES AREA	598.9267 SQ.FT.	/ 60	= 9.98
KITCHEN	353.5944 SQ.FT.	/ 200	= 1.77
SERVICE/RETAIL	1811.5102 SQ.FT.	/ 100	= 18.12
STORAGE	381.0958 SQ.FT.	/ 300	= 1.27
OFFICE	58.7969 SQ.FT.	/ 100	= 0.59
BREAK ROOM	38.2076 SQ.FT.	/ 100	= 0.38
RESTROOMS	239.4357 SQ.FT.	/ 100	= 2.39
TOTAL OCCUPANT LOAD:			34.50 → 35

PARKING DATA

PARKING DISTRICT:
PARKING REQUIREMENTS:
LAND USE:
RETAIL (4,263 SQ.FT.)
1 SPACE/225 SQ.FT. = 19 STALLS
PARKING PROVIDED:
TYPE:

STANDARD PARKING	9'x16'	= 16 STALLS
ACCESSIBLE	12'x16'	= 1 STALL
VAN ACCESSIBLE	12'x16'	= 1 STALL
LOW EMITTING FUEL EFFICIENT CARPOOL	9'x16'	= 2 STALLS
TOTAL		20 STALLS

CONTACT INFORMATION INDEX:

OWNER :
YUMYUM DONUTS
18830 E. SAN JOSE AVE
CITY OF INDUSTRY, CA 91748
CONTACT: MICHAEL HEINEMEYER
PH: (626) 964 1478

ARCHITECT:
GARY WANG, AIA
GARY WANG AND ASSOCIATES
1255 CORPORATE CENTER DRIVE, PH 8
MONTEREY PARK, CA 91754
PH: (626) 288-6898
FAX: (626) 768-7101

STRUCTURAL:
TROY TRYFONOPOULOS, P.E.
DIRECTOR OF CIVIL ENGINEER
PLUMP ENGINEERING INC.
914 E. KATELLA AVENUE,
ANAHEIM, CA 92805
EMAIL: TROY@PEICA.COM
PH: (714)385-1835

CIVIL ENGINEER:
TROY TRYFONOPOULOS, P.E.
DIRECTOR OF CIVIL ENGINEER
PLUMP ENGINEERING INC.
914 E. KATELLA AVENUE,
ANAHEIM, CA 92805
EMAIL: TROY@PEICA.COM
PH: (714)385-1835

JURISDICTIONAL AUTHORITIES:

PLANNING DEPARTMENT:
CITY OF MORENO VALLEY
COMMUNITY DEVELOPMENT,
PLANNING DIVISION
14177 FREDERICK STREET,
MORENO VALLEY, CA 92552
CONTACT: GABRIEL DIAZ
PH: (951)413-3226

BUILDING DEPARTMENT:
CITY OF MORENO VALLEY
COMMUNITY DEVELOPMENT,
BUILDING DIVISION
14177 FREDERICK STREET,
MORENO VALLEY, CA 92552
CONTACT:
PH: (951)413-3226

HEALTH DEPARTMENT:
COUNTY OF RIVERSIDE
ENVIRONMENTAL HEALTH
4065 COUNTY CIR,
RIVERSIDE, CA 92503
CONTACT:
PH: (951)358-5316

FIRE DEPARTMENT:

WATER:
EASTERN MUNICIPAL WATER DISTRICT
2770 TRUMBLE ROAD,
PERRIS, CA 92572
CONTACT: BRENDA DUMAS
PH: (951)928-3777EXT.4810

ELECTRIC:
SOCAL EDISON
CONTACT: FRANK CONRIQUEZ
EMAIL: FRANKIE.CONRIQUEZ@SCE.COM
PH: (951)928-8320

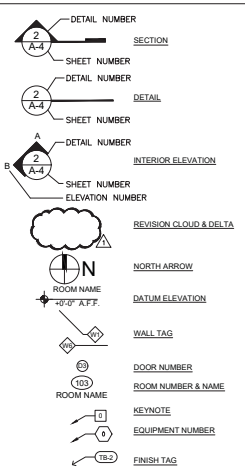
GAS:
SOUTHER CALIFORNIA GAS
CONTACT:
PH: (800)427-2200

TELEPHONE:

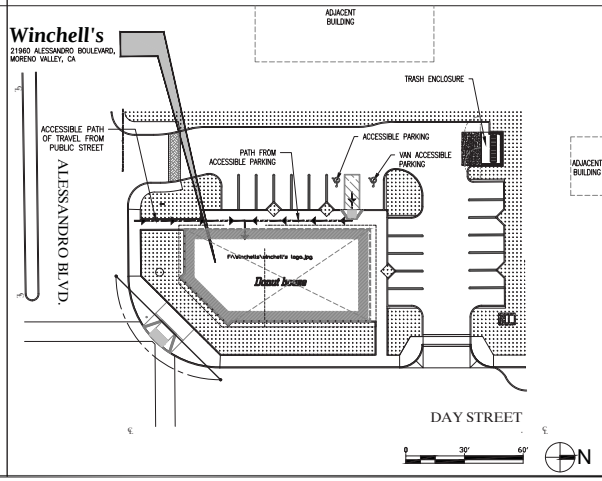
ABBREVIATIONS

A.C.	ASPHALTIC CONCRETE	MAX.	MAXIMUM
A.F.F.	ABOVE FINISHED FLOOR	MIN.	MINIMUM
AC.T.	ACOUSTICAL TILE	M.B.	MARKER BOARD
ADMIN.	ADMINISTRATION	MET.	METAL
BLD'G	BUILDING	(N)	NEW
B.N.	BULL NOSE	N.I.C.	NOT IN CONTRACT
B.L.	BUILDING LINE	NO.	NUMBER
C.B.	CHALK BOARD	O.C.	ON CENTER
CEM.	CEMENT	O.D.	OUTSIDE DIAMETER
CEM. PLAS.	CEMENT PLASTER	OPEN'G	OPENING
C.F.	CUBIC FEET	OPP.	OPPOSITE
CL'G	CEILING		
CLSRM	CLASSROOM	PL.	PLATE
CLR	CLEAR	PLYWD	PLYWOOD
CMU	CONCRETE MASONRY UNIT	PR.	PAIR
CONC.	CONCRETE		
C.T.	CERAMIC TILE	REQ.	REQUIRED
DET.	DETAIL	S.F.	SQUARE FEET
DETS	DETAILS	SHT	SHEET
DIA	DIAMETER	SIM.	SIMILAR
		S.S., ST.S.	STAINLESS STEEL
(E)	EXISTING	S.	STANDARD
EXIST'G	EXISTING	STRUC.	STRUCTURAL
EL.	ELEVATION		
ELEV.	ELEVATION, ELEVATOR	T.O.	TOP OF
E.P.	ELECTRICAL PANEL	T.A.	TOP OF ASPHALT PAVING
EQ.	EQUAL	T.B.	TACK BOARD
		T.C.	TOP OF CONC., T.O. CURB
F.G.	FINISH GRADE	T.W.	TOP OF WALL
F.H.C.	FIRE HOSE CABINET	TYP.	TYPICAL
FIN.	FINISH, FINISHED		
FLR	FLOOR	U.N.O.	UNLESS NOTED OTHERWISE
FTG	FOOTING		
		V.C.T.	VINYL COMBINATION TILE
GA.	GAUGE	VERT.	VERTICAL
GALV	GALVANIZED	VEST.	VESTIBULE
GYP. BD.	GYPSUM BOARD		
		W/	WITH
HORIZ.	HORIZONTAL	W/O	WITHOUT
		W.I.	WROUGHT IRON
I.C.	INTERCOM		
I.D.	INSIDE DIAMETER		
INFO.	INFORMATION		

SYMBOLS



SITE PLAN



CONSULTANTS

ARCHITECT
GARY WANG
& ASSOCIATES, INC.
ite Center Dr., PH 8
, CA 91754
3-6898 FAX: (626) 768-7101
rywang.com

STAMP

NAME/ADDRESS:
Winchell's
ESSANDRO BLVD.,
ALLEY, CA 92553

ISSUE DATE:
1ST ST SUB TO PLANNING
2ND EVISION
3RD ND SUBMITTAL
4TH RD SUBMITTAL
5TH TH SUBMITTAL
6TH TH SUBMITTAL
7TH TH SUBMITTAL
8TH TH SUBMITTAL

JB NUMBER
JECT #: 14-074

DRAWN BY
D,GC,& CL

SHEET CONTENT
ES, PROJECT INFO,
/ MAP & NOTES

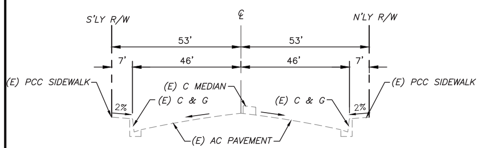
SHEET NO
·100

PEN 16-107

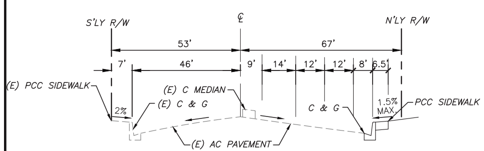
PRELIMINARY GRADING PLAN
FOR
PROPOSED DONUT SHOP
21976 ALESSANDRO BLVD., MORENO VALLEY, CA 92553

PROJECT INFORMATION:

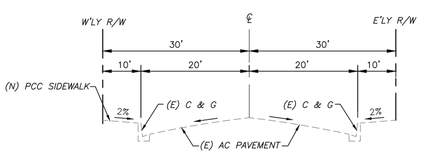
SITE ADDRESS : 21976 ALESSANDRO BLVD.,
MORENO VALLEY, CA 92553
AREA : 0.51 ACRES (22,061 SF)
ZONING : COMMERCIAL
EXISTING LAND USE: UNKNOWN/SINGLE STORY BLDG.
PROPOSED LAND USE: COMMERCIAL
FLOOD ZONE : X (FEMA MAP # 06065C0745G)
TOWNSHIP/RANGE: T3SR4W SEC 10
ASSESSOR PARCEL NO.: 263-230-012-3 & 263-230-013-4
OWNER: MICHAEL HEINEMEYER
OWNER'S ADDRESS: 18830 E. SAN JOSE AVE, CITY OF INDUSTRY, CA
TELEPHONE: (626) 964-1478 EXT. 108
PROJECT NAME: YUM YUM DONUTS - DAY ST. & ALESSANDRO.
PROJECT ADDRESS: NW CORNER OF DAY ST. & ALESSANDRO BLVD.
MORENO VALLEY, CA 92553
GROSS AREA: 0.617 ACRES (26,917 SF)
NET AREA: 0.617 ACRES (26,917 SF)
LANDSCAPE COVERAGE: 18.6% PERVIOUS COVERAGE
TOPOGRAPHY SOURCE: PLUMP ENGINEERING, INC.
SURVEY TEAM
TOPOGRAPHY DATE: JANUARY 2014
PARKING PROVIDED: 19 REGULAR PARKING STALLS
ADA PARKING PRO.: 2 ADA PARKING STALLS



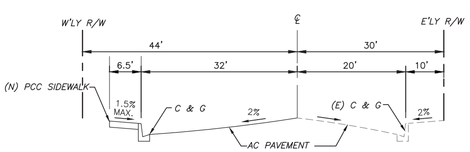
ALESSANDRO BLVD.
EXISTING TYPICAL STREET SECTION
NOT TO SCALE



ALESSANDRO BLVD.
PROPOSED TYPICAL STREET SECTION
PER MVSI-101A-0 NOT TO SCALE



DAY STREET
TYPICAL STREET SECTION
NOT TO SCALE



DAY STREET
PROPOSED TYPICAL STREET SECTION
PER MVSI-105A-0 - NOT TO SCALE

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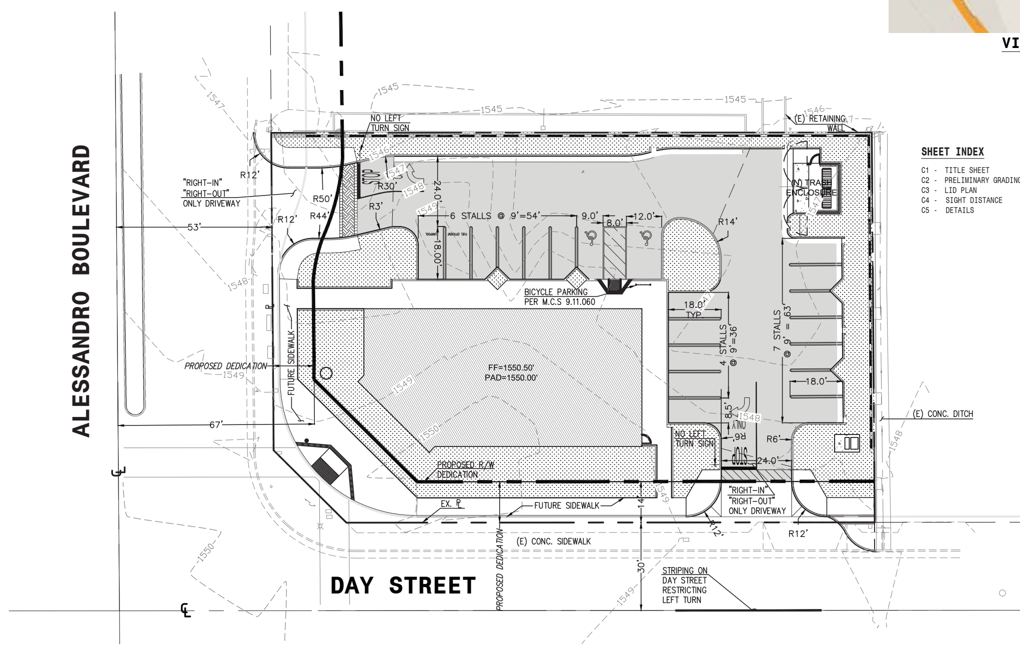

SITE PLAN
SCALE 1:20

VICINITY MAP
N.T.S.

SHEET INDEX

C1 - TITLE SHEET
C2 - PRELIMINARY GRADING PLAN
C3 - LID PLAN
C4 - SIGHT DISTANCE
C5 - DETAILS

LEGEND:

AB - AGGREGATE BASE
AC - ASPHALT CONCRETE
BC - BACK OF CURB
BCR - BEGINNING OF CURB RETURN
BOP - BOTTOM OF PIPE
CB - CATCH BASIN
CF - CURB FACE
CL - CENTERLINE
CONC. - CONCRETE
CONST. - CONSTRUCT, CONSTRUCTION
DI - DRAIN INLET
DWG - DRAWING
EC - END OF CURVE
E - EAST
EA - EACH
ECR - END OF CURB RETURN
E'LY - EASTERLY
EP - EDGE OF PAVEMENT
ESMT - EASEMENT
FF - FINISHED FLOOR
FG - FINISHED GRADE
FL - FLOW LINE
FS - FINISHED SURFACE
GB - GRADE BREAK
HDR - HEADER
HP - HIGH POINT
INV - INVERT
JS - JUNCTION STRUCTURE
LF - LINEAR FOOT
LP - LOW POINT
LS - LUMP SUM
MH - MANHOLE
MOC - MIDDLE OF CURVE
M.C.S - MUNICIPAL CODE SECTION
N'LY - NORTHERLY
N - NORTH
NTS - NOT TO SCALE
O.C. - ON CURVE
PCC - PORTLAND CEMENT CONCRETE
PL - PROPERTY LINE
PUE - PUBLIC UTILITY EASEMENT
PVC - POLYVINYL CHLORIDE
R - RADIUS
RD - ROOF DRAIN
RH - REDWOOD HEADER
RL - RIDGE LINE
RWD - REDWOOD
RW - RECLAIMED WATER
R/W - RIGHT-OF-WAY
S - SEWER OR SOUTH
SD - STORM DRAIN
SF - SQUARE FOOT
S'LY - SOUTHERLY
STD - STANDARD
TAN - TANGENT
TC - TOP OF CURB
TOP - TOP OF PIPE
TS - TOP OF SLOPE
W - WATER OR WEST
W'LY - WESTERLY
XXX.XX - PROPOSED ELEVATION
(XXX.XX) - EXISTING ELEVATION
⟶ - DRAINAGE FLOW DIRECTION

LEGAL DESCRIPTION:

PARCEL 1: (APN: 263-230-012-3)

THAT PORTION OF LOT 41 OF EDGEMONT NO. 2, AS SHOWN BY A MAP ON FILE IN BOOK 12 PAGE 19 OF MAPS, RIVERSIDE COUNTY RECORDS.

PARCEL 2: (APN: 263-230-013-4)

THAT PORTION OF LOT 41 OF EDGEMONT NO. 2, AS SHOWN BY A MAP ON FILE IN BOOK 12, PAGE 19 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

BENCHMARK & BASIS OF BEARING:

RIVERSIDE COUNTY
BENCHMARK DESIGNATION: MP 104
USGS QUAD: RIVERSIDE EAST (1967)

FOUND 3" METRO WATER DISTRICT SOUTHERN CALIFORNIA BRASS DISK STAMPED MP 104 1994 FLUSH ON TOP OF THE ABUTMENT WALL, 3.5 FEET (1.1M) EAST OF THE WEST END AND 3 FEET (0.9M) ABOVE ROAD SURFACE.

ELEVATION: 1574.17'
DATUM: NAVD 88

BASIS OF BEARINGS IS THE CENTERLINE OF DAY STREET BEING NORTH 00°02'14" WEST AS SHOWN ON RECORD OF SURVEY, BOOK 126/PAGE 61, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

UTILITIES CONTACT INFORMATION:

SOUTHERN CALIFORNIA EDISON
(800) 655-4555

SOUTHERN CALIFORNIA GAS CO.
(800) 427-2200

TIME WARNER CABLE
16548 SIR BURTON WAY
MORENO VALLEY, CA
(808) 211-1546

BOX SPRING MUTUAL WATER COMPANY
21740 DRACAEA AVE.
MORENO VALLEY, CA 92553
(951)653-6419

MORENO VALLEY ELECTRICAL UTILITIES
14325 FREDRICK ST.
MORENO VALLEY, CA
(951) 413-3500

THE GAS COMPANY
MORENO VALLEY, CA
(800) 427-2200

EARTHWORK:

FILL:	850 C.Y.
CUT:	150 C.Y.
IMPORT:	700 C.Y.

EARTH WORK QUANTITIES ARE RAW ESTIMATES ONLY. THEY DO NOT REFLECT SUBSIDENCE, OR ANY MATERIAL GENERATED BY UTILITY TRENCHING AND BUILDING FOOTINGS. THE QUANTITIES SHOWN ABOVE ARE INTENDED FOR USE IN ESTABLISHING GOVERNING AGENCY FEES. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE QUANTITIES FOR BID PURPOSES. ANY EXPORT OR IMPORT REQUIRE TO BALANCE THE SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

20' 0 20' 40' 60'
SCALE: 1" = 20'

Attachment: Project Plans (2903 : PEN16-0107)

ONSULTANT
inc
ENGINEERING INC.
TING ENGINEERS
IL SURVEYING
STRUCTURAL
NGINEERING
CATELLA AVENUE
L CALIFORNIA 92805
335, FAX (714) 385-1834

STAMP
PROFESSIONAL ENGINEER
P. TRYFONOPOULOS
NO. 65859
EXP.12/31/17
CIVIL
CALIFORNIA
10-19-2017

T NAME/ADDRESS:
ESSANDRO BLVD.,
VALLEY, CA 92553

SSUE DATE:
1ST SUB TO PLANNING
REVISION
2ND SUBMITTAL
3RD SUBMITTAL
4TH SUBMITTAL
5TH SUBMITTAL
6TH SUBMITTAL
7TH SUBMITTAL

OB NUMBER
Y PROJECT #: 131008

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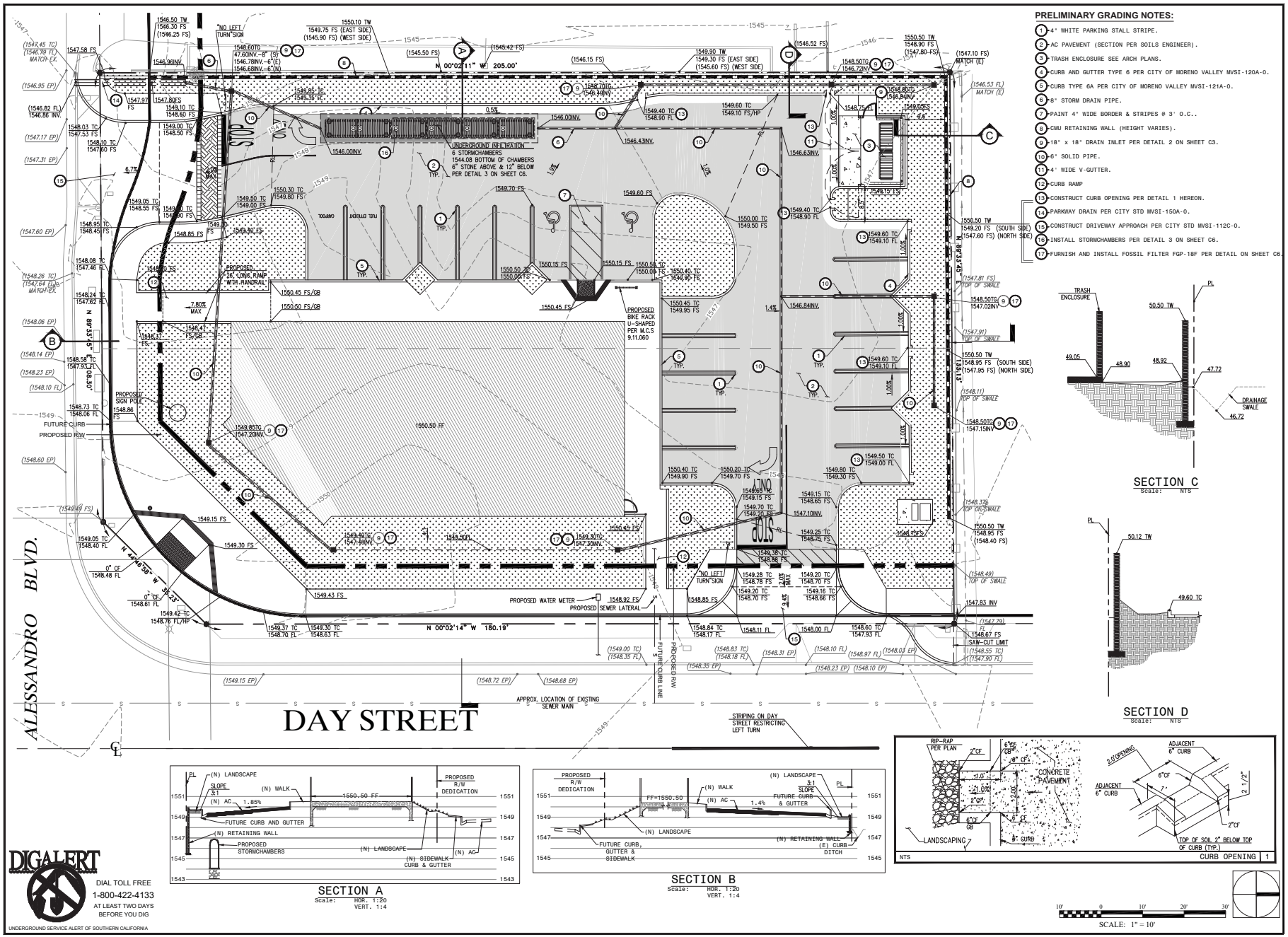
AA /TT

EET CONTENT
LE SHEET

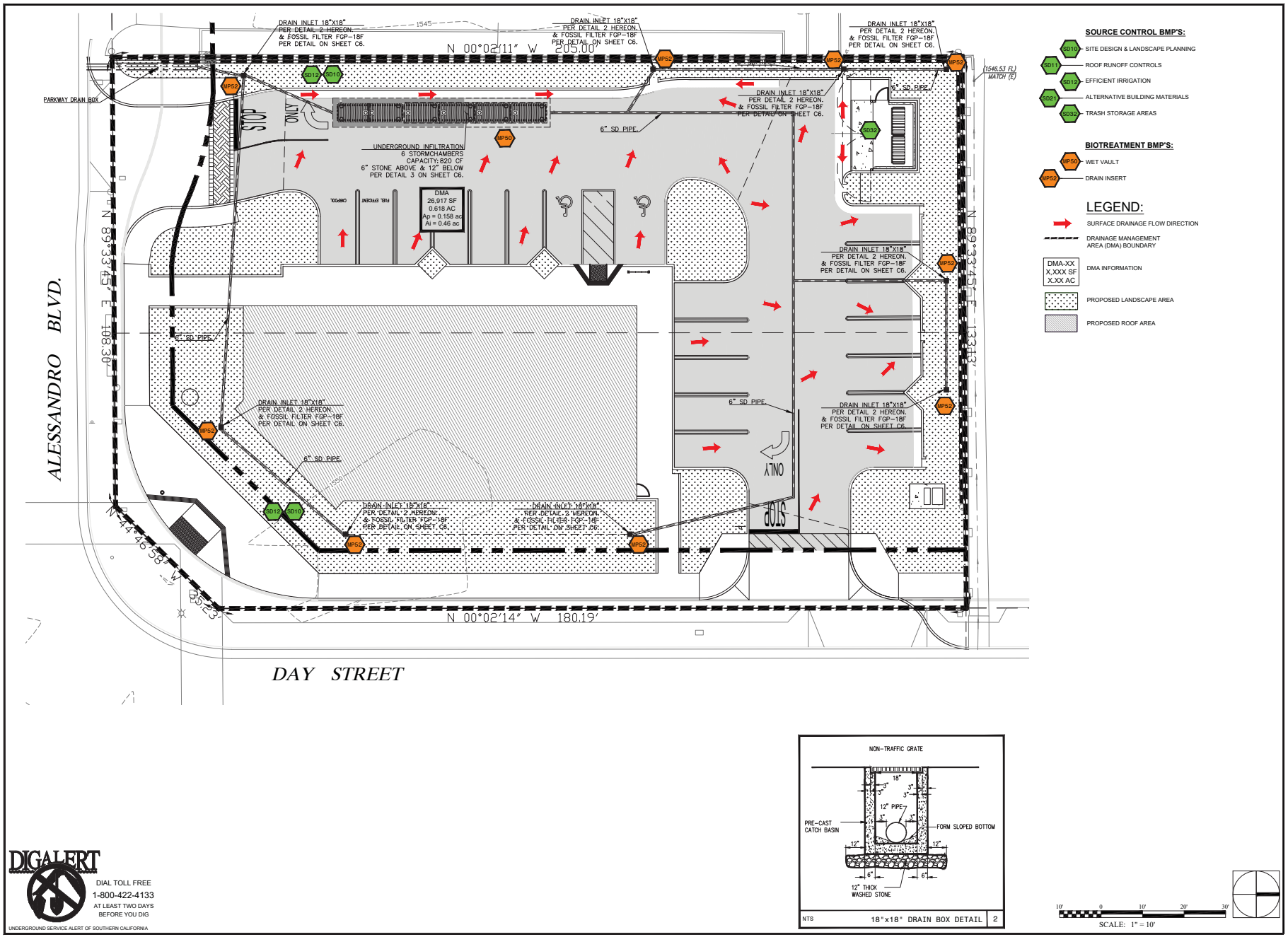
SHEET NO
C1
EET 1 OF 6

PEN 16-107



Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107



SOURCE CONTROL BMP'S:

- SD10 SITE DESIGN & LANDSCAPE PLANNING
- SD11 ROOF RUNOFF CONTROLS
- SD12 EFFICIENT IRRIGATION
- SD21 ALTERNATIVE BUILDING MATERIALS
- SD32 TRASH STORAGE AREAS

BIOTREATMENT BMP'S:

- MP50 WET VAULT
- MP52 DRAIN INSERT

LEGEND:

- SURFACE DRAINAGE FLOW DIRECTION
- DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
- DMA-XX X,XXX SF X.XX AC — DMA INFORMATION
- PROPOSED LANDSCAPE AREA
- PROPOSED ROOF AREA

SCALE: 1" = 10'

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d, CALIFORNIA 92805
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PROFESSIONAL ENGINEER
NO. 65859
EXP.12/31/17
CIVIL
10-19-2017

NAME/ADDRESS:
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VALLEY, CA 92553

ISSUE DATE:
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3RD SUBMITTAL
4TH SUBMITTAL
5TH SUBMITTAL
6TH SUBMITTAL
7TH SUBMITTAL
8TH SUBMITTAL

JOB NUMBER
Y PROJECT #: 131008

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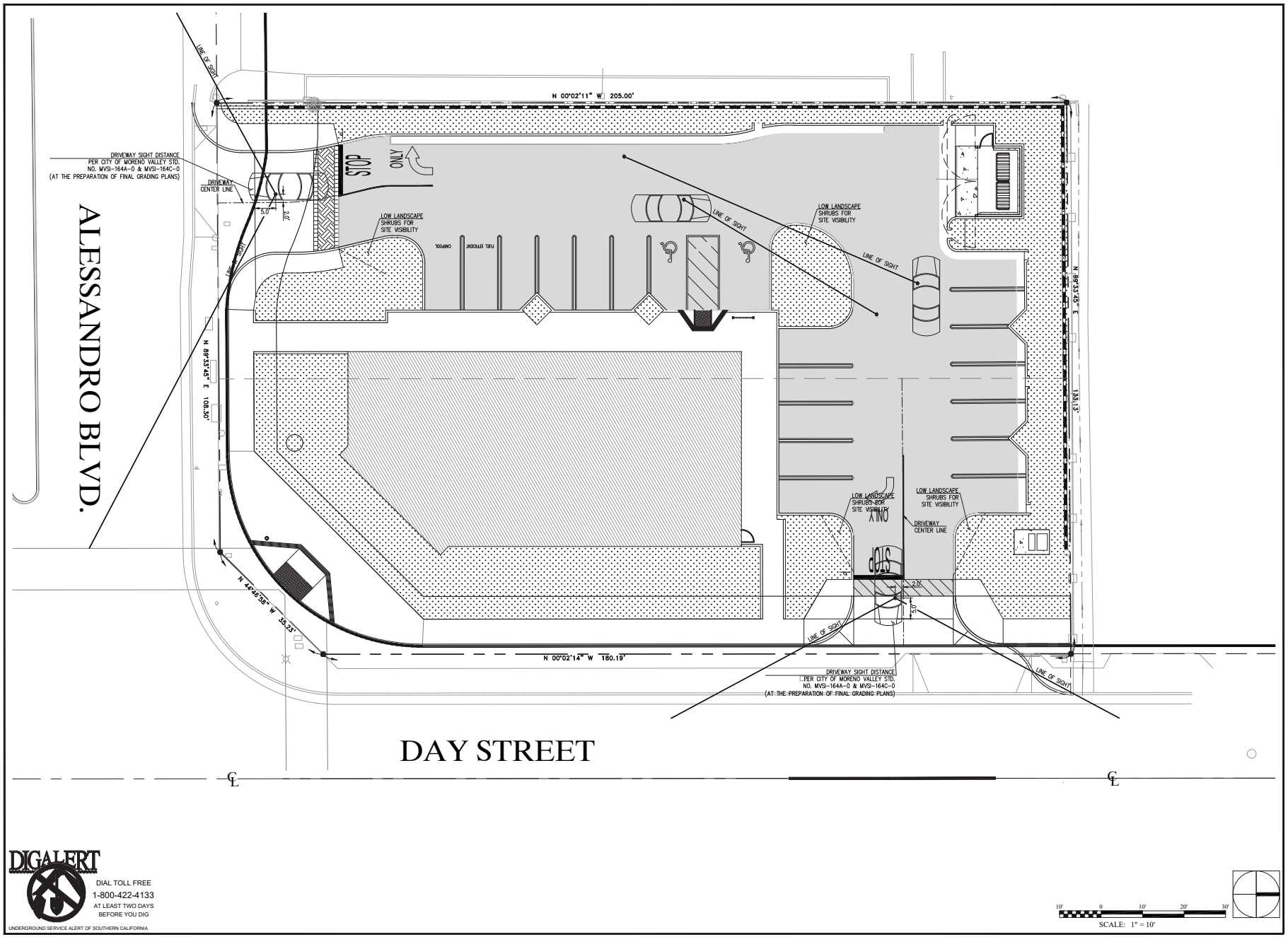
SHEET CONTENT
ID PLAN

SHEET NO
C3
SHEET 3 OF 6

PEN 16-107



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CASTELLA AVENUE
CALIFORNIA 92805
(714) 385-1835, FAX (714) 385-1834

STAMP
PROFESSIONAL ENGINEER
ANTHONY TRYFOROPOULOS
NO. 65859
EXP.12/31/17
CIVIL
10-19-2017

PROJECT NAME/ADDRESS:
inchell's
ALESSANDRO BLVD.,
VALLEY, CA 92553

ISSUE DATE:
1ST SUB TO PLANNING
REVISION
2ND SUBMITTAL
3RD SUBMITTAL
4TH SUBMITTAL
5TH SUBMITTAL
6TH SUBMITTAL
7TH SUBMITTAL
8TH SUBMITTAL

JOB NUMBER
PROJECT #: 131008

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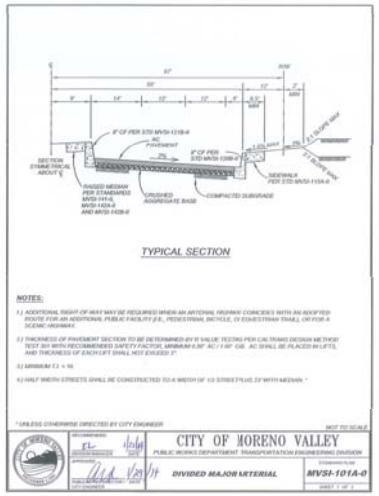
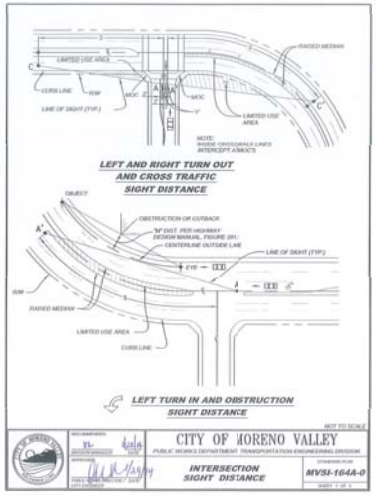
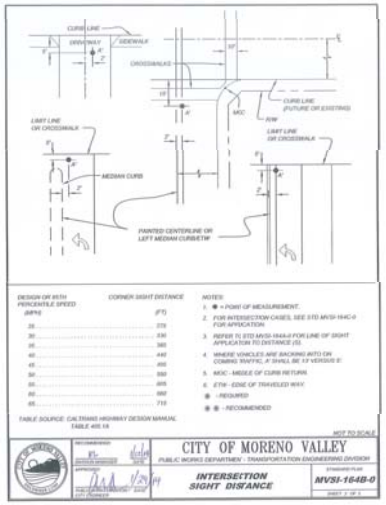
SHEET CONTENT
DISTANCE

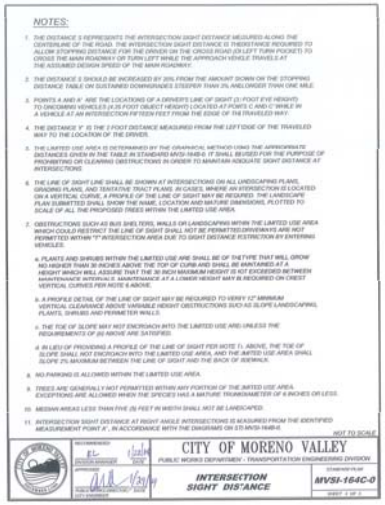
SHEET NO
C4
SHEET 4 OF 6

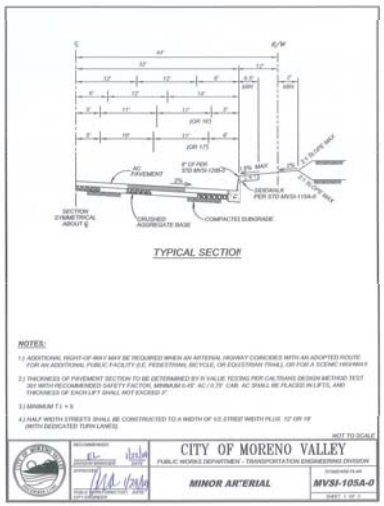
PEN 16-107

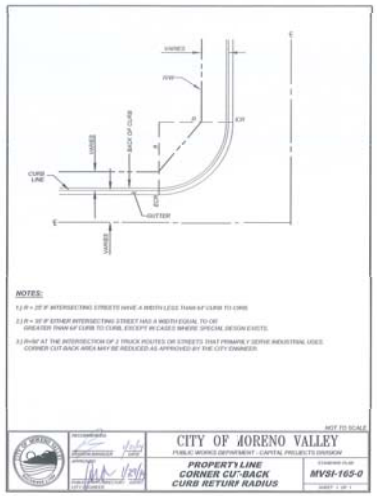


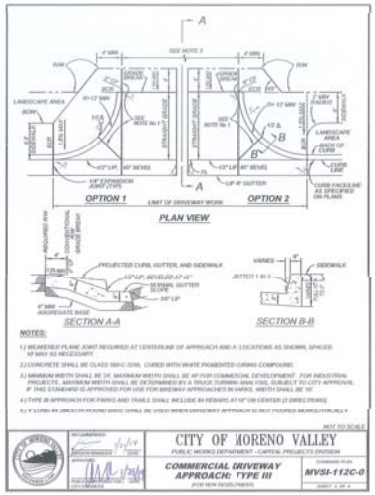


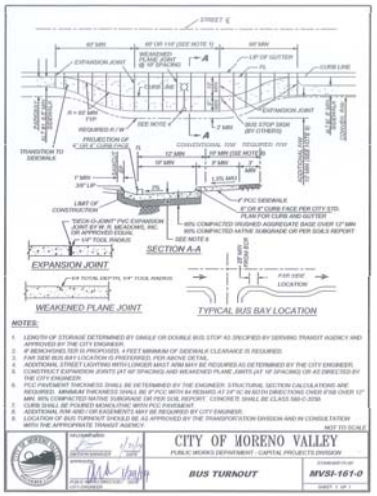












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...55, FAX (714) 385-1834

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...PROFESSIONAL ENGINEER
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...NO. 65859
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.../ALLEY, CA 92553

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8TH	...TH SUBMITTAL

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... AA /TT
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...ETAILS
...SHEET NO
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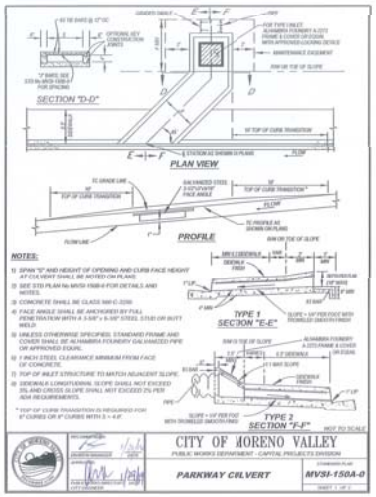
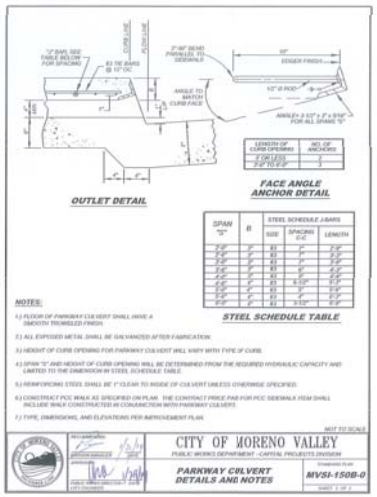
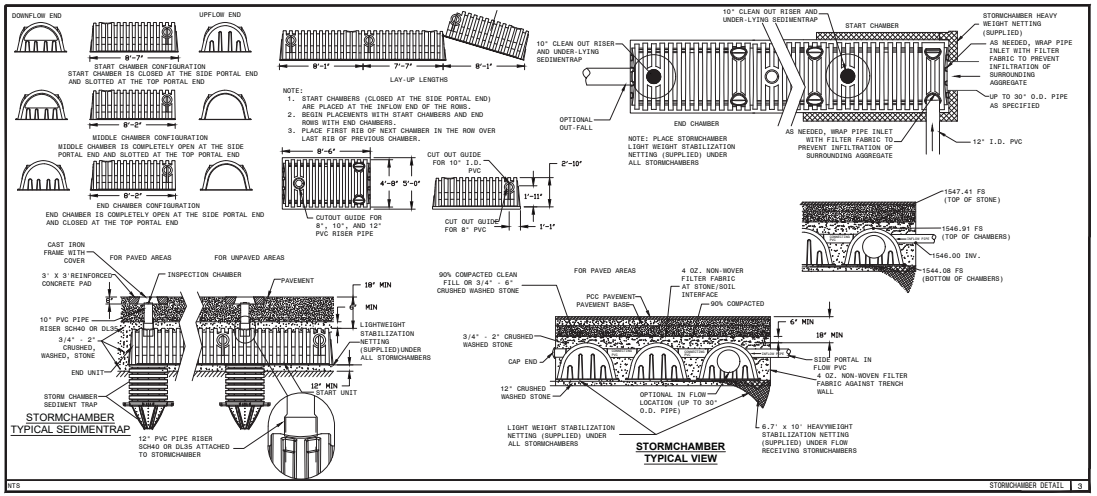
...EET 5 OF 6

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107







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, CALIFORNIA 92805
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NO. 65850
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CIVIL
10-19-2017

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/ALLEY, CA 92553

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4TH RD SUBMITTAL
5TH TH SUBMITTAL
6TH TH SUBMITTAL
7TH TH SUBMITTAL
8TH TH SUBMITTAL

JOB NUMBER
Y PROJECT #: 131008

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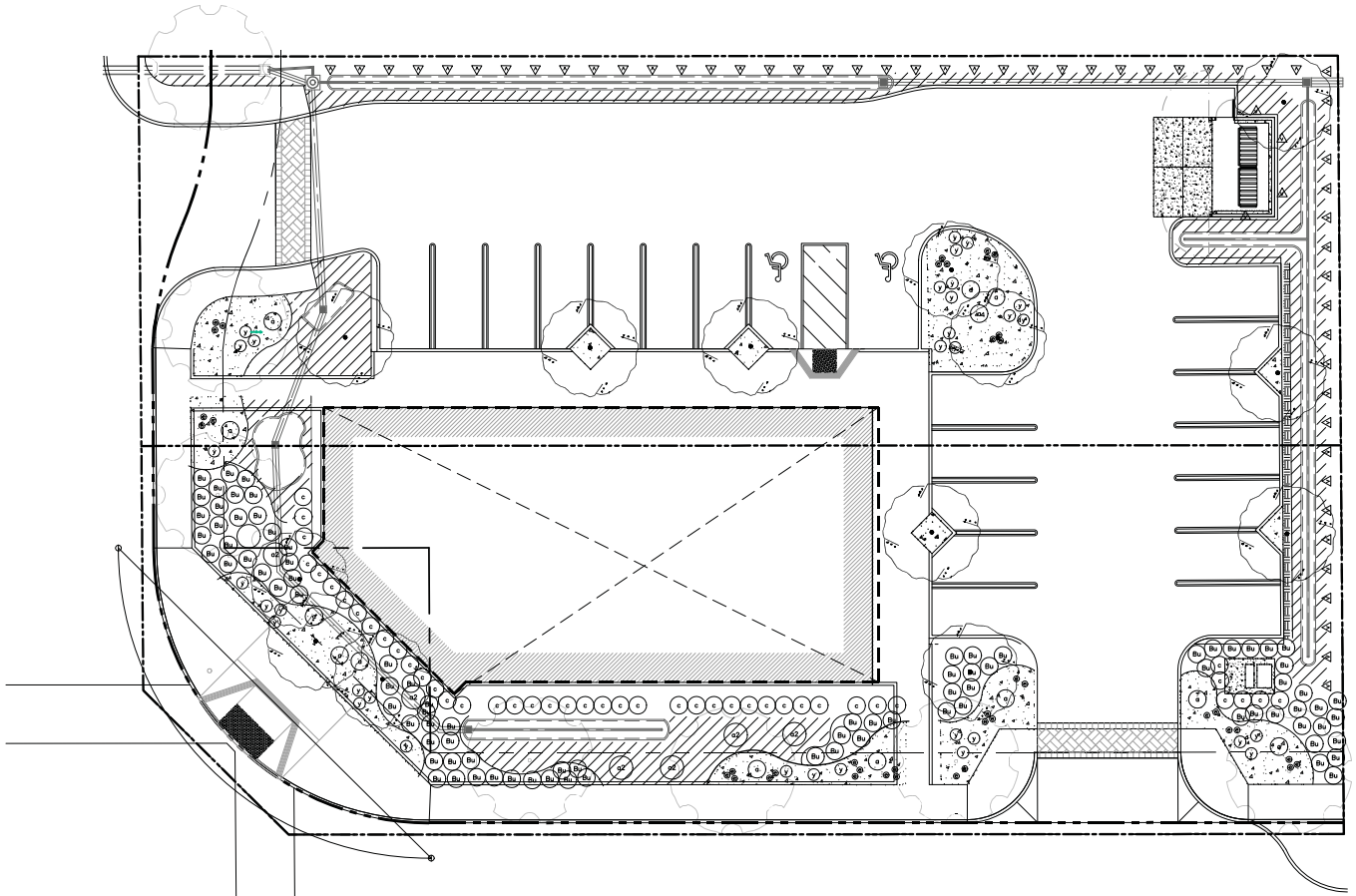
SHEET CONTENT
DETAILS

SHEET NO
C6
SHEET 6 OF 6

PEN 16-107



DAY STREET

Tree Material						
Syb	Quantity	Unit	Scientific name	Common name	Notes	WUCOLS
	14	24" bx	Chitalpa tashkentensis 'Morning cloud'	Desert Willow	Tunk Caliper 1 3/4" min Canopy Diameter 4' min	L
	7	24" bx	Pinus canariensis	Canary Island Pine	Tunk Caliper 1 3/4" min Canopy Diameter 4' min	M

Plant Material						
Syb	Quantity	Unit	Scientific name	Common name	Notes	WUCOLS
a2	7	5 gl	Agave attenuata	Foxtail Agave		L
a	14	5 gl	Agave desmettiana	Smooth Agave		L
c	42	5 gl	Callistemon 'little john'	Bottle bush shrub		M
e	41	1 gl	Echeveria 'Fire and ice'	Fire and Ice Echeveria		L
v	67	5 gl	Ficus pumilia	Ficus vine		L
y	34	5 gl	Yucca color guard	Variegated Yucca		L
b	96	1 gl	Bulbine fruticosa	Snake flower		L
	32	Flats	Senecio serpriviirens	Blue chalk sticks	18" o.c.	M

Ground	
Syb	Description
	3" layer shredded organic mulch
	3/4" crushed brown decorative rock 3" layer over filter cloth.

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1-800-422-4133
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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

SCALE: 1" = 10'

Winchell's

Winchel

SAVAGE LAND DES
LANDSCAPE ARCHITECTURE+LAND PLANNING
550 S. Brea Blvd, Bra CA 92
P: 714-878-0335 F: 714-494-
Email: savagelanddesign@a

STAMP

LICENSED LANDSCAPE ARCHITECT
Signature
6-23-17
Date
Exp. Date 5/31/19
STATE OF CALIFORNIA

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BL
MORENO VALLEY, CA 92

ISSUE DATE:	
1ST	12-9-15
2ND	3-9-17
3RD	5-18-17
4TH	
5TH	
6TH	

JOB NUMBER

DRAWN BY
ED

SHEET CONTENT
Planting Plan

SHEET NO
L1
SHEET 1 OF 1

PA14-0013

Attachment: Project Plans (2903 : PEN16-0107)

GENERAL CONSTRUCTION NOTES

1. CODES

   ALL WORK SHALL CONFORM TO ALL APPLICABLE FEDERAL STATE AND LOCAL CODES AND ORDINANCES. NOTHING SHOWN IN THESE DRAWINGS SHALL BE CONSTRUED AS PERMISSION TO VIOLATE ANY OF THE GOVERNING CODES.

2. PERMITS

   A. THE OWNER WILL PAY FOR THE BUILDING PERMIT AND ANY SEWER, WATER. OR OTHER LOCAL JURISDICTIONAL FEES OR ASSESSMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH HIS SUBCONTRACTORS WITH REGARD TO PERMITS, FEES AND TEMPORARY AS WELL AS PERMANENT UTILITIES. THE SUBCONTRACTORS SHALL OBTAIN CITY LICENSES AND SUBMIT SAME TO THE JOB SUPERINTENDENT BEFORE STARTING WORK. EACH SUBCONTRACTOR SHALL PAY FOR ALL FEES AND PERMITS REQUIRED FOR THEIR PORTION OF THE WORK.

   B. THE PLAN CHECK FEE SHALL BE SECURED AND PAID FOR BY THE OWNER. ALL OTHER PERMITS SHALL BE TAKEN OUT AND PAID FOR BY THE SUBCONTRACTOR DIRECTLY RESPONSIBLE.

   C. THE CONTRACTOR SHALL OBTAIN PERMITS FROM THE LOCAL STATE DIVISION OF INDUSTRIAL SAFETY AS REQUIRED AND SHALL COMPLY WITH ALL REQUIREMENTS OF THE DIVISION.

3. CONSTRUCTION DOCUMENTS

   D. THE INTENTION OF THESE DOCUMENTS IS TO INCLUDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND TRANSPORTATION NECESSARY FOR THE COMPLETE AND PROPER EXECUTION OF THE WORK INDICATED ON THE DRAWINGS OR REASONABLY INFERRED THESE FROM. THE ARCHITECT WILL IN NO WAY BE RESPONSIBLE FOR HOW THE FIELD WORK IS PERFORMED. SAFETY IN OR ABOUT THE JOB SITE METHODS OF PERFORMANCE OR TIMELINES IN THE PERFORMANCE OF THE WORK IF DISCREPANCY EXISTS BETWEEN PLANS OF DIFFERENT SCALES, THE LARGER SCALE PLAN SHALL GOVERN. NOTIFY ARCHITECT OF SUCH DISCREPANCY BEFORE PROCEEDING WITH THE WORK.

4. BIDS

   E. BIDDERS PRIOR TO SUBMITTAL OF BIDS SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH THE ARCHITECTS' PLANS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCY, OMISSION, CLARIFICATION, OF ANY INFORMATION NECESSARY FOR COMPLETION OF THEIR SCOPE OF WORK.

   F. ALL TRADES SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES REQUIRED TO PERFORM ALL WORK NECESSARY, INDICATED OR REASONABLY INFERRED OR REQUIRED BY ANY APPLICABLE CODE TO COMPLETE THEIR SCOPE OF WORK FOR A COMPLETE AND PROPERLY FINISHED JOB.

   G. CONTRACTORS PRIOR TO BIDDING SHALL GUARANTEE THAT ALL OTHER SUB-BIDDEES OR SUB CONTRACTORS SHALL BE GIVEN COMPLETE FULL SETS OF PLANS TO INSURE THAT THEY HAVE INCLUDED ALL ITEMS NECESSARY TO COMPLETE THEIR WORK. ANY ITEM MISSED BY THESE SUBCONTRACTORS IN THEIR BIDS SHALL BE ABSORBED BY THE GENERAL CONTRACTOR AT HER/HIS OWN EXPENSE AND IN NO WAY WILL AFFECT ANY ADDITIONAL COST OVER AND ABOVE THE FINAL BID.

   H. ALL TRADES SHALL PROVIDE BIDS ACCORDING TO THE PLANS AND SPECIFICATIONS. ANY ALTERNATE SHALL BE SUBMITTED TO THE OWNER (IN WRITING) FOR APPROVAL PRIOR TO ACCEPTANCE OF BID.

5. CONTRACTOR

   A. PRIOR TO COMMENCING, THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS AND VERIFY CONDITIONS AT THE SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. CONTRACTOR SHALL VERIFY WITH THE PROPER UTILITY COMPANY THE LOCATIONS OF ALL EXISTING BELOW GRADE UTILITIES AND THEIR SERVICE CONNECTION PRIOR TO THE COMMENCEMENT OF WORK.

   B. NO CONTRACTOR, SUBCONTRACTOR, OR SUBCONTRACTOR IS TO START HIS WORK UNTIL HE/SHE HAS FIRST EXAMINED THE EXISTING CONDITIONS. IF FOR ANY REASON A PERFECT JOB IS IMPOSSIBLE IT SHALL BE IMMEDIATELY REPORTED TO THE PROJECT SUPERINTENDENT AND ARCHITECT BEFORE PROCEEDING WITH THE JOB.

   C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, FOR COORDINATION OF HIS WORK WITH THAT OF OTHER TRADES AND FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

   D. CONTRACTOR TO VERIFY AND ENSURE AVAILABILITY AND TIMELY DELIVERY OF SPECIFIED OR SUBSTITUTED PRODUCTS PRIOR TO CONSTRUCTION. HE SHALL NOTIFY ARCHITECT OF POSSIBLE CHANGES TO CONSTRUCTION DOCUMENTS OR ANY CONSTRUCTION DELAY DUE TO NON AVAILABILITY OR LATE DELIVERY OF MATERIALS. ARCHITECT IS NOT RESPONSIBLE FOR NON AVAILABILITY OR LATE DELIVERY OF PRODUCTS DURING CONSTRUCTION.

   E. ANY CONTRACTOR PRIOR TO INSTALLATION OR PROCUREMENT OF MATERIALS SHALL NOTIFY ARCHITECT OF PROBLEMS IF ANY, FAILURE TO DO SO SHALL MEAN THAT ALL NECESSARY CORRECTIVE MEASURE, DOCUMENTATION, ETC. SHALL BE DONE BY THAT CONTRACTOR AT HIS OWN EXPENSE AND TIME.

   F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE BUILDING LINES AND LEVELS. THE CONTRACTOR SHALL COMPARE CAREFULLY THE LINES AND LEVELS SHOWN ON THE DRAWINGS WITH EXISTING LEVELS FOR THE CONSTRUCTION OF THE WORK AND SHALL CALL THE ARCHITECT'S ATTENTION TO ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

   G. PROVIDE ALL NECESSARY BACKING AND FRAMING FOR ALL WALL MOUNTED ITEMS, LIGHT FIXTURES AND ALL OTHER ITEMS REQUIRED SAME.

6. LIABILITIES

   A. THE DESIGN PROFESSIONAL (DP) SHALL CONSULT WITH THE CLIENT REGARDING THE PROBABLE SERVICES REQUIRED TO COMPLY WITH AMERICAN DISABILITIES ACT (ADA). THE DP IS NOT AN ATTORNEY NOR SHOULD THE DP'S RENDERING AN OPINION OF PROBABLE SERVICES REQUIREMENTS BE CONSIDERED EQUIVALENT TO A LEGAL INTERPRETATION OF ADA. THE DP'S OPINION WILL BE BASED SOLELY ON HIS OR HER OWN EXPERIENCE AND KNOWLEDGE. THIS REQUIRES THE DP TO MAKE A CERTAIN NUMBER OF ASSUMPTIONS AS TO THE TYPES OF DISABILITIES COVERED BY ADA. THE DEGREE OF ACCESS THAT IS READILY ACHIEVABLE AND WHAT CONSTITUTES 'READILY ACCESSIBLE AND USABLE'. GIVEN THE ASSUMPTIONS WHICH MUST BE MADE THE DP CANNOT AND DOES NOT GUARANTEE THE ACCURACY OF HIS OR HER OPINION AS TO FULL COMPLIANCE AND IN RECOGNITION OF THAT FACT, THE CLIENT WAIVES ANY CLAIM AGAINST THE DP RELATIVE TO THE ADEQUACY OF THE OPINION TO FULLY COMPLY WITH ADA REQUIREMENTS.

   B. THE ARCHITECT WHO SIGN THESE PLANS, SPECIFICATIONS AND INSTRUMENTS OF SERVICE SHALL NOT BE HELD RESPONSIBLE FOR DAMAGES RESULTING FROM CHANGES OR USES NOT AUTHORIZED OR APPROVED BY THE ARCHITECT. THE SIGNING OF THESE DOCUMENTS WILL NOT IMPOSE A LEGAL DUTY OR RESPONSIBILITY TO OBSERVE THE CONSTRUCTION OF THE FIXED WORKS SUBJECT TO THESE DOCUMENTS.

   C. ALL BRACING NECESSARY FOR CONSTRUCTION PURPOSES BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

   D. THE DESIGN ADEQUACY AND SAFETY OF THE ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS AND FINISH MATERIALS. THE CONTRACTOR SHALL PROVIDE THE NECESSARY BRACING TO PROVIDE STABILITY PRIOR TO THE APPLICATION OF THE AFOREMENTIONED MATERIALS. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

7. INTENTION

   THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR, MATERIALS / EQUIPMENT AND TRANSPORTATION NECESSARY FOR COMPLETE AND PROPER EXECUTION OF THE WORK.

8. SUBSTITUTION

   NO SUBSTITUTION SHALL BE MADE WITHOUT THE OWNERS APPROVAL.

9. CHANGES

   THE OWNER MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO, OR DEDUCTING FROM THE WORK. THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY.

10. SCOPE

    ALL TRADES SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND PERFORM ALL WORK NECESSARY. REASONABLY INFERRED OR REQUIRED BY ANY CODE WITH JURISDICTION, TO COMPLETE THEIR SCOPE OF WORK FOR COMPLETE AND PROPERLY FINISHED JOB.

11. CUTTING AND PATCHING

    ALL TRADES SHALL DO THEIR OWN CUTTING, FITTING, PATCHING, ETC. TO MAKE THE SEVERAL PARTS COME TOGETHER PROPERLY AND FIT IT TO RECEIVE OR BE RECEIVED BY WORK OF OTHER TRADES.

12. CLEANING

    THE CONTRACTOR SHALL CLEAN-UP, REMOVE AND DISPOSE IN A LEGAL MANNER ALL DEBRIS AND WASTE ATTRIBUTED TO THE JOB.

13. INSULATION

    A. ROOF INSULATION SHALL BE RATED FIBERGLASS BATTS BETWEEN BOTTOM CHORDS OF TRUSSES OR BETWEEN ROOF JOISTS PER TITLE 24 REQUIREMENTS.

    B. RATED FIBERGLASS INSULATION LIKEWISE BE PROVIDED AT THE EXTERIOR STUD WALLS BETWEEN STUDS PER TITLE 24 REQUIREMENTS.

    C. REFER TO ENERGY CONSERVATION NOTES AND MANDATORY MEASURES FOR ADDITIONAL INSULATION NOTES AND REQUIREMENTS.

GENERAL NOTES (CONT.)

ENTRANCES AND EXITS

1. ALL ENTRANCES AND ALL EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDING AND FACILITIES SHALL BE MADE ACCESSIBLE.
2. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED. WHEN EXIT DOORS ARE USED IN PAIRS AND APPROVED AUTOMATIC FLUSH BOLTS ARE USED, THE DOOR LEAF HAVING THE AUTOMATIC FLUSH BOLTS SHALL HAVE NO DOOR KNOBS OR SURFACE MOUNTED HARDWARE. THE UNLATCHING OF ANY LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE. PANIC BARS, PUSH-PULL ACTIVATION BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
5. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30" AND 44" ABOVE THE FLOOR.
6. EVERY DOORWAY LOCATED WITHIN AN ACCESSIBLE PATH OF TRAVEL SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 3 FEET IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. WHEN INSTALLED, EXIT DOORS SHALL BE CAPABLE OF OPENING SO THAT THE CLEAR WIDTH OF THE EXIT IS NOT LESS THAN 32".
7. THERE SHALL BE A LEVEL AND CLEAR FLOOR OR LANDING ON EACH SIDE OF A DOOR. THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60" AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLE TO THE PLANE OF THE DOOR IN THE CLOSED POSITION.
8. THE FLOOR OR LANDING SHALL BE NOT MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY.
9. DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION WHERE NARROW FRAME DOORS ARE USED. A 10" HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
10. RECESSED DOOR MATS SHALL BE ADEQUATELY ANCHORED TO PREVENT INTERFERENCE WITH WHEELCHAIR TRAFFIC.
11. MAXIMUM EFFORT TO OPERATED DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS. SUCH PUSH OR PULL EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATION DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MAXIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. NOT TO EXCEED 15 POUNDS.

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Winchel

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STAMP

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BL
MORENO VALLEY, CA 92

ISSUE DATE:	
1ST	040114 – 1ST SUB TO PLANNI
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER

ARCH PROJECT #: 14-074

DRAWN BY

AD,GC,& CL

SHEET CONTENT

GENERAL NOTES

SHEET NO

G-10

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107

GENERAL NOTES

1. THE TERM 'CONTRACTOR' AS USED HERE IN AND ON THE DRAWINGS SHALL ALSO BE APPLICABLE TO EACH SUBCONTRACTOR AS REQUIREMENTS PERTAIN TO HIS TRADE.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS TO FLOOR PLANS AND ELEVATIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND OWNER IMMEDIATELY, IN WRITING, OF ALL AND ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS AND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK INVOLVED.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS TO SITE PLAN AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND OWNER IMMEDIATELY, IN WRITING, OF ALL AND ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS AND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK INVOLVED.

4. ALL WRITTEN DIMENSIONS SHALL HAVE PREFERENCE OVER SCALED DIMENSIONS.

5. ALL WRITTEN DIMENSIONS SHALL HAVE PREFERENCE OVER SCALES SHOWN ON ALL PLANS, DRAWINGS AND DETAILS.

6. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON PROJECT.

7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THE DRAWINGS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ANY AND ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY THEIR OPERATIONS IN PERFORMANCE OF THE WORK.

8. THE CONTRACTOR SHALL TAKE ANY NECESSARY PRECAUTIONS TO LOCATE AND PROTECT ANY UNDERGROUND OR CONCEALED CONDUIT, PLUMBING OR OTHER UTILITIES PRIOR TO DEMOLITION EXCAVATION.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY WATER, POWER, AND TOILET FACILITIES AS REQUIRED.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND AVAILABILITY OF ALL OFF-SITE UTILITY LINES.

11. AREAS DESIGNATED FOR OFF-STREET PARKING AND LOADING, REQUIRED ACCESS DRIVES AND MANEUVERING AREAS SHALL NOT BE USED FOR THE OUTDOOR STORAGE OF MATERIALS.

12. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE LOCAL BUILDING CODE AS ADOPTED AND AMENDED BY LOCAL GOVERNING AUTHORITIES.

13. THIS STRUCTURE IS DESIGNED AS A STABLE UNIT AFTER ALL COMPONENTS ARE IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AS REQUIRED TO ASSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OF PORTION THEREOF DURING CONSTRUCTION.

14. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

15. NEITHER THE OWNER OR THE ARCHITECT WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS. IT IS THE INTENT OF THESE CONSTRUCTION DOCUMENTS TO INCORPORATE THE SAFETY STANDARDS OF THE STATE CODE DIVISION OF INDUSTRIAL SAFETY.

16. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR THE SIMILAR WORK SHOWN ON THE DRAWINGS AND/OR SHALL CONFORM TO ACCEPTED STANDARDS OF PRACTICE.

17. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT THE JOB DIMENSIONS OR CONDITIONS AND SHALL BE INCLUDED AS PART OF THE WORK.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR REPAIR, WITHOUT DAMAGE, FOR ANY DAMAGE CAUSED BY HIM OR HIS SUB-CONTRACTOR.

19. ALL GLASS AND GLAZING SHALL COMPLY WITH STATE AND LOCAL CODES THE U.S. CONSUMER PRODUCTS SAFETY COMMISSION SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS.

20. ALL INTERIOR WALLS AND PARTITIONS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST ALL LOADS TO WHICH THEY ARE SUBJECTED TO, BUT NOT LESS THAN A FORCE OF FIVE(5) POUNDS PER SQUARE FOOT APPLIED PERPENDICULAR TO THE WALLS.

21. CONTRACTOR SHALL PROVIDE AND INSTALL STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK, STAIR RAILINGS, MECHANICAL, ELECTRICAL OR MISCELLANEOUS EQUIPMENT.

22. WHEN SHOP DRAWINGS ARE REQUIRED, ALL DIMENSIONS ARE TO BE VERIFIED AT THE JOB SITE BY THE CONTRACTOR PRIOR TO FABRICATION OF.

23. VERIFY LOCATION AND SIZE OF ALL OPENINGS WITH ALL DRAWINGS AND MANUFACTURED ITEMS WHERE APPLICABLE.

24. VERIFY INSERTS AND EMBEDDED ITEMS WITH ALL DRAWINGS AND MANUFACTURED ITEMS WHERE APPLICABLE.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER OR INFERIOR MATERIALS OR WORKMANSHIP OR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM, WITHOUT COST TO OWNER, WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT. EXCEPTION, THE ROOFING SUBCONTRACTOR SHALL SUBMIT A MAINTENANCE AGREEMENT, CO-SIGNED BY THE CONTRACTOR, TO MAINTAIN THE ROOFING IN A WATERTIGHT CONDITION FOR A PERIOD OF TWO YEARS.

26. THE CONTRACTOR SHALL SUBMIT COPIES OF MANUFACTURERS CATALOG SHEETS, BROCHURES, SHEETS OF COLOR SAMPLES, INSTALLATION INSTRUCTIONS, ETC. ON MANUFACTURED PRODUCTS, USED OR INSTALLED IN THE PROJECT FOR OWNERS ACCEPTANCE BEFORE PURCHASE OF DELIVERY TO THE SITE. NON-COMPLIANCE MAY RESULT IN REJECTION OR NON-ACCEPTANCE.

27. MATERIALS AND PRODUCTS MUST BE DELIVERED TO THE BLDG. SITE IN ORIGINAL PACKAGES, MATERIAL AND PRODUCTS SHALL BE STORED OFF THE GROUND ON WOOD BLOCKING IN AN UPRIGHT POSITION, PROTECTED FROM THE ELEMENTS, IN A MANNER TO PREVENT DAMAGE OR MARRING OF FINISH.

28. ALL WORKS SHALL CONFORM TO THE MINIMUM STANDARDS OF THE LOCAL BUILDING CODE, AND ANY OTHER REGULATING AGENCIES HAVING AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.

29. APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OR FAILURE TO COMPLY WITH THE PLANS AND SPECIFICATIONS. ANY DESIGN WHICH FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE ARCHITECT OR HIS ENGINEER FOR INTERPRETATION OR CLARIFICATIONS.

30. THE CONTRACTOR SHALL TAKE ALL MEANS NECESSARY TO PROTECT HIS PORTION OF THE WORK BEFORE, DURING, AND AFTER INSTALLATION, AND TO PROTECT THE INSTALLED WORK AND MATERIALS OF OTHER TRADES. IN THE EVENT OF DAMAGE, THE CONTRACTOR SHALL MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

31. WORKMANSHIP SHALL CONFORM TO THE BEST STANDARDS AND ACCEPTED PRACTICES OF THE TRADES INVOLVED, AND SHALL INCLUDE ALL ITEMS OF FABRICATION, CONSTRUCTION AND INSTALLATION REGULARLY FURNISHED OR REQUIRED FOR COMPLETION, INCLUDING ANY FINISH REQUIRED FOR SUCCESSFUL OPERATION AS INTENDED. WORK SHALL BE EXECUTED BY MECHANICS SKILLED IN THEIR RESPECTIVE LINES OF WORK.

32. THE ARCHITECT DOES NOT GUARANTEE THE CONTRACTORS PERFORMANCE, AND NO PROVISIONS OF THE CONTRACT DOCUMENTS SHALL RELIEVE THE CONTRACTOR FROM ANY LIABILITY DUE TO NEGLIGENCE, INCOMPETENCE OR ERRORS OF OMISSIONS OR COMMISSIONS OF THE CONTRACTOR.

33. THE GENERAL CONTRACTOR AS WELL AS MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTORS MUST VERIFY ALL EQUIPMENT REQUIREMENTS WITH THE EQUIPMENT SUPPLIER BEFORE ANY WORK IS DONE.

34. LOCATION OF ALL MECHANICAL ROOF OPENINGS SHALL BE DETERMINED AND VERIFIED BY THE MECHANICAL CONTRACTOR.

EXISTING BUILDING AND STRUCTURES

1. WHEN A RENOVATION, STRUCTURAL REPAIR, ALTERATION, OR ADDITION TO AN EXISTING BUILDING OCCURS, COMPLIANCE INCLUDES THE FOLLOWING:

   A. THE AREA OF RENOVATION, STRUCTURAL REPAIR, ALTERATION, OR ADDITION MUST FULLY COMPLY.

   B. A PRIMARY ENTRANCE TO THE BUILDING OR FACILITY AND THE PRIMARY PATH OF TRAVEL TO THE SPECIFIC AREA OF ALTERATION, STRUCTURAL REPAIR, OR ADDITION MUST FULLY COMPLY.

   C. SANITARY FACILITIES, AND, WHEN PROVIDED, DRINKING FOUNTAINS AND PUBLIC TELEPHONES, SERVING THE AREA OF RENOVATION, STRUCTURAL REPAIR, ALTERATION OR ADDITION MUST FULLY COMPLY.

2. BUILDINGS THAT HAVE BEEN REMODELED TO PROVIDE SPECIFIC SANITARY FACILITIES AND/OR ELEVATIONS FOR PUBLIC USE THAT CONFORM TO ADA SHALL HAVE THIS INFORMATION POSTED IN THE BUILDING LOBBY, PREFERABLY AS PART OF THE BUILDING DIRECTORY.

SUMMARY OF WORK/RESPONSIBILITIES/COORDINATION

1. THIS PROJECT SHALL CONFORM TO THE CURRENT EDITIONS OF THE LOCAL BUILDING CODE AND CITY AND COUNTY LAWS AND ORDINANCES.

2. CONSTRUCTION SHALL CONFORM WITH ALL APPLICABLE BUILDING CODES AND ALL OTHER APPLICABLE ORDINANCES, REGULATIONS, DRAWINGS, AND GENERAL NOTES CONTAINED HEREIN. GENERAL CONTRACTOR IS RESPONSIBLE FOR READING THE TENANT CRITERIA BOOK PRIOR TO BEGINNING THE PROJECT. THE BOOK INCLUDES INFORMATION AND DETAILS CRITICAL TO THE JOB.

3. THE DRAWINGS ARE NOT INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHMENT WORK. THE INTENTION OF THESE DOCUMENTS IS ONLY TO SHOW MATERIALS, EQUIPMENT, AND THEIR FINISHED CONDITION FOR THE PROPER COMPLETION OF THE WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT THE JOB DIMENSIONS OR CONDITIONS AND SHALL BE INCLUDED AS PART OF OF THE WORK.

4. THESE CONTRACT DOCUMENTS ARE INTENDED TO BE COMPLIMENTARY. WORK REQUIRED TO BE DONE BY ONE DOCUMENT AND NOT BY OTHERS SHALL BE DONE AS IF REQUIRED BY ALL.

5. WHERE NO SPECIFIC DETAIL IS SHOWN, THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION OF THIS PROJECT.

6. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTION, OR DETAILS ON DRAWINGS.

7. WORK NOT INCLUDED IN CONTRACT: ITEMS DESIGNATED AS 'N.I.C.', FUTURE, OR BY OWNER SHALL BE EXCLUDED FROM THIS CONTRACT, ALL OTHER DOCUMENTS AND MATERIALS REQUIRED BY THESE CONTRACT DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

8. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR JOB SITE CONDITIONS OR COMPLIANCE WITH SAFETY REGULATIONS GOVERNING WORK PERFORMED ON THIS PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK ON, OR RELATED TO THESE PLANS, SHALL CONDUCT THEIR OPERATIONS SO THAT THE PUBLIC IS PROTECTED – AND SHALL COMPLY WITH THE 'OCCUPATIONAL SAFETY AND HEALTH REGULATIONS' OF THE U.S. DEPARTMENT OF LABOR, AND WITH ANY AND ALL OTHER APPLICABLE STATE AND / OR LOCAL SAFETY REGULATIONS. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE SAFETY CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT AND THAT THIS REQUIREMENT SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND THE ARCHITECT FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

9. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND TO CROSS CHECK DIMENSIONS AND DETAILS SHOWN ON THE ARCHITECTURAL DRAWINGS WITH RELATED REQUIREMENTS ON THE MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL. REQUIREMENTS MUST BE COORDINATED BEFORE THE CONTRACTOR PROCEEDS WITH CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES. CONTRACTOR IS ALSO RESPONSIBLE TO VERIFY WITH MALL MANAGEMENT THE EXACT LOCATION OF THE LEASE LINE AND OTHER EXISTING REQUIREMENTS NOT NOTED ON THESE PLANS.

10. ALL OMISSIONS AND ALL CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN ITEMS COVERED IN THE GENERAL NOTES AND NOTES ON THE DRAWINGS, OR BETWEEN NOTES ON DRAWINGS AND SPECIFIC DETAILS, THE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE ARCHITECT WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS AND THE RESULTING ADDITIONAL COSTS OR CREDITS SHALL BE INCLUDED IN THE CONTRACTORS BASE BID. IN THE EVENT THAT THIS REQUIREMENT IS NOT ADHERED TO, ADDITIONAL CHARGES DURING THE CONSTRUCTION PHASE WILL NOT BE CONSIDERED BY THE OWNER AND THE ARCHITECT. THE SUBCONTRACTORS FAILURE DURING THE BID PHASE TO BRING DISCREPANCIES OR UNAVAILABILITY OF PROPRIETARY PRODUCTS TO THE GENERAL CONTRACTORS ATTENTION WILL NOT BE CONSIDERED BY THE OWNER AND THE ARCHITECT AS AN APPROPRIATE REASON FOR ADDITIONAL COMPENSATION.

11. LOCATIONS OF ANY AND ALL UTILITIES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL CONTACT THE ARCHITECT & OWNER IF UNKNOWN CONDITIONS ARISE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, AND PROCEDURES REQUIRED FOR THE PERFORMANCE OF HIS OR HER SUBCONTRACTORS WORK IN, ON, OR ABOUT THE JOB SITE.

13. THE CONTRACTORS SHALL PROVIDE ANY AND ALL SHORING AND BRACING NECESSARY TO INSURE THE STABILITY OF ANY AND ALL PARTS OF THE PROJECT DURING CONSTRUCTION.

14. UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS, NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED, OR OTHERWISE WEAKENED WITHOUT THE PERMISSION OF THE ARCHITECT AND LANDLORD OR MALL MANAGEMENT.

15. PRIOR TO THE FINAL PAYMENT, THE CONTRACTOR SHALL DELIVER TO THE OWNER ALL GUARANTEES, WARRANTEES, MAINTENANCE MANUALS, PARTS LISTS, OPERATING INSTRUCTIONS, AIR BALANCE REPORTS, AS BUILT DRAWINGS AND COMPLETION OF ALL ITEMS ON THE FINAL PUNCH LIST AND SIGNED BY TENANT.

16. UNLESS SPECIFIED OR INDICATED ON DRAWINGS, THE CONTRACTOR SHALL APPLY, INSTALL, CONNECT, ERECT, USE, CLEAN, AND CONDITION MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS CURRENT PRINTED RECOMMENDATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE SUCCESSFUL COORDINATION AND INSTALLATION OF OWNERS EQUIPMENT AND FIRE SUPPRESSION SYSTEM. VERIFY SIZES OF THE EQUIPMENT BY THE OWNER PRIOR TO THE START OF CONSTRUCTION, IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO CHECK THE DIMENSIONS IN THE FIELD, PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR ALL FIXTURES, EQUIPMENT, CABINETRY FURNISHINGS AND ALL OTHER ITEMS REQUIRING THE SAME.

17. NUMBER OF SPECIFIED ITEMS REQUIRED WHENEVER IN THESE GENERAL NOTES, AN ARTICLE, DEVICE OR PIECE OF EQUIPMENT IS REFERENCED TO IN THE SINGULAR NUMBER, SUCH REFERENCES APPLY TO AS MANY SUCH ARTICLES AS ARE SHOWN IN THE DRAWINGS OR REQUIRED TO COMPLETE THE INSTALLATION.

18. CLEAN UP UPON COMPLETION, REMOVE ALL SURPLUS MATERIAL, EQUIPMENT DEBRIS INCIDENTAL TO THIS WORK, AND LEAVE THE PREMISES IN A 'VACUUM' CONDITION.

19. GUARANTEE THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE OR REMEDY ANY FAULTY, IMPROPER OR INFERIOR MATERIALS OR WORKMANSHIP OR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WITHOUT COSTS TO THE OWNER WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.

20. IF ANY CONTRACTOR CLAIMS THAT ANY INSTRUCTIONS FROM THE ARCHITECT OR OWNER INVOLVES EXTRA COST UNDER THIS CONTRACT, HE SHALL GIVE WRITTEN NOTICE TO THE ARCHITECT AND OWNER THEREOF WITHIN A REASONABLE TIME AFTER THE RECEIPT OF SUCH INSTRUCTIONS NOT LATER THAN 5 DAYS THEREFROM, AND, IN ANY EVENT, BEFORE PROCEEDING TO EXECUTE THE WORK, EXCEPT IN EMERGENCY ENDANGERING LIFE OR PROPERTY, AND THE PROCEDURE SHALL THEN BE AS PROVIDED FOR CHANGES IN THE WORK, NO SUCH CLAIM SHALL BE VALID UNLESS SO MADE.

21. THE OWNER SHALL CONTRACT WITH MASTER PROTECTION / FIRE PROTECTION SYSTEM FOR THE 'ANSUL' FIRE SUPPRESSION SYSTEM.

22. TENANT MUST MAKE A SEPARATE APPLICATION AND PAY A PLAN CHECK FEE FOR ANY AND ALL STORE SIGNS TO THE BUILDING AND SAFETY DEPARTMENT.

23. NO HAZARDOUS WASTE TO BE STORED ON THIS SITE.

24. THE CONTRACTOR SHALL PROVIDE THE BUILDING OWNER, MANAGERIAL AND ORIGINAL OCCUPANTS THE FOLLOWING:

A. A LIST OF THE HEATING, COOLING, WATER HEATING AND LIGHTING SYSTEMS AND FEATURES, MATERIALS, COMPONENTS, AND MECHANICAL DEVICES, CONSERVATION OF SOLAR DEVICES INSTALLED IN THE BUILDING AND INSTRUCTION ON HOW TO USE EFFICIENTLY.

B. A REQUIRED ROUTINE MAINTENANCE ACTION SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE MAINTENANCE MANUAL.

C. A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEM IS DESIGNED TO PROVIDE TO EACH AREA.

25. EACH HVAC SYSTEM SHALL BE EQUIPPED WITH AT LEAST ONE AUTOMATIC SERVICE TO SETBACK OF SHUTOFF THE SYSTEM DURING PERIODS OF NON-USE OR ALTERNATE USE OF THE BUILDING SPACES OR ZONES SERVED BY THE SYSTEM. EXCEPTION SMALL AUXILIARY HVAC SYSTEMS WHOSE INPUT POWER IS LESS THAN 500 WATTS MAY HAVE READILY ACCESSIBLE MANUAL ON/OFF SWITCHING INSTEAD.

26. AUTOMATIC TEMPERATURE CONTROLS FOR HVAC SYSTEMS SHALL COMPLY WITH THE FOLLOWING:

A. EACH ZONE SHALL BE PROVIDED WITH AT LEAST ONE AUTOMATIC TEMPERATURE CONTROL FOR THAT ZONE.

B. MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55°F TO 85°F.

C. OPERATE ZONE HEATING AND COOLING IN SEQUENCE IF BOTH ARE PROVIDED.

D. PROVIDE A TEMPERATURE RANGE ADJUSTABLE UP TO 10 DEGREES BETWEEN FULL HEATING AND FULL COOLING TO THE ZONE.

27. AIR HANDLING DUCT SYSTEMS SHALL BE CONSTRUCTED, INSTALLED, SEALED AND INSULATED.

28. MECHANICAL VENTILATION SUPPLY AND EXHAUST SYSTEMS WITH MORE THAN 5000 CFM OF AIR SHALL BE PROVIDED WITH AUTOMATIC DAMPERS INTERLOCKED AND CLOSED ON FAN SHUTDOWN.

29. GRAVITY VENTILATION SYSTEM SHALL BE PROVIDED WITH AUTOMATIC DAMPERS INTERLOCKED AND CLOSED ON FAN SHUTDOWN.

30. GRAVITY VENTILATION SYSTEM SHALL BE PROVIDED WITH AUTOMATIC OR READILY ACCESSIBLE MANUALLY OPERATED DAMPERS IN ALL OPENINGS TO THE OUTSIDE, EXCEPT COMBUSTION AIR OPENINGS.

31. THE AUTOMATIC SPRINKLER SYSTEM SHALL BE FULLY OPERABLE WITHIN THE ENTIRE COVERED MALL BUILDING AND APPROVED BY THE FIELD FIRE INSPECTOR PRIOR TO THE OCCUPANCY AIR OPENINGS.

FINISHES

GYPSUM WALL BOARD

1. PROVIDE GYPSUM WALLBOARD, STEEL FRAMING COMPONENTS, AND ACCESSORIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. PRODUCTS SPECIFIED HEREIN ARE AS MANUFACTURED BY U.S. GYPSUM. EQUIVALENT PRODUCTS OF OTHER MANUFACTURERS WILL BE CONSIDERED PROVIDED THEY MEET THOSE ESTABLISHED STANDARDS. MAKE APPROPRIATE SUBMITTAL FOR ANY SUBSTITUTIONS.

2. ALL WORK SHALL COMPLY WITH FIRE RESISTIVE MATERIALS AND PLASTER AND OTHER APPLICABLE REGULATIONS.

3. FINISH

A. UNLESS NOTED OTHERWISE (E.G. SPECIAL WALL COVERING AREAS) ALL GYPSUM WALLBOARD SHALL BE TAPED, SPACKLED, AND PAINTED.

B. VERIFY ANY SPECIAL FINISH AREA PRIOR TO COMMENCING WORK.

C. CONTRACTOR IS TO PROVIDE A PAINT ROLLER TEXTURE TO WALLS ONLY. SEE FINISH SCHEDULE FOR EXISTING WALLS.

CEMENTITIOUS BACKER UNITS (C.B.U.)

1. REQUIREMENTS

A. SET TILE IN LATEX MODIFIED DRY-SET MORTAR

2. MATERIALS

A. CEMENTITIOUS BACKER UNITS – ANSI A118.9.

B. 2" GLASS FIBER MESH TAPE.

C. FASTENERS – NON-CORROSIVE AND NON-OXIDIZING.

D. GROUT – ANSI A118.6 (USE TYPE RECOMMENDED BY TILE MANUFACTURER)

3. PREPARATION BY CEMENTITIOUS BACKER UNIT INSTALLERS

A. MAXIMUM VARIATION IN THE BACKING SURFACE 1/8" IN 8'-0" FROM THE REQUIRED PLANE

B. HORIZONTAL AND VERTICAL JOINTS AND CORNERS 1/8" SPACING FILLED SOLID WITH LATEX MODIFIED DRIED-SET MORTAR.

C. GLASS FIBER MESH TAPE-EMBED IN A SKIM COAT OF THE MORTAR OVER JOINTS AND CORNERS

4. INSTALLATION SPECIFICATIONS

A. CEMENTITIOUS BACKER UNITS – ANSI A108.11.

B. TILE-ANSI A108.5.

C. GROUT – ANSI A108.10.

PAINTING

1. SEE FINISH SCHEDULE FOR PAINT PRODUCTS.

2. THE WORK INCLUDES, BUT IS NOT LIMITED TO FURNISHING OF MATERIALS AND EQUIPMENT, AND COMPLETION OF PAINTING AND PAINTER'S FINISH ON EXPOSED SURFACES AS REQUIRED TO COMPLETE FINISHING OF THE WORK INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE OF MATERIALS AND APPLICATION WITH GOVERNING AGENCIES (LOCAL STATE AND FEDERAL) IN CONNECTION WITH THIS PROJECT.

4. THE FOLLOWING EXPOSED SURFACES ARE TO BE PAINTED OR STAINED: A. ALL GYPSUM WALLBOARD NOT COVERED BY OTHER MATERIALS. B. ALL EXISTING WALLBOARD TO A MIN. OF 6" ABOVE ROOM CEILING. TYPICAL UNLESS NOTED OTHERWISE ON ROOM FINISH SCHEDULE. C. ALL METAL IN IMPROVED AREAS NOT PRE-FINISHED PRIOR TO INSTALLATION. D. ALL WOOD SURFACES, TRIM, OR PIECES NOT PRE-FINISHED PRIOR TO INSTALLATION. (DO NOT PAINT INTERIOR ELEMENTS NORMALLY CONCEALED SUCH AS STRUCTURAL COMPONENTS).

5. MATERIALS

A. PAINT PRODUCTS SHALL BE MANUFACTURED BY BENJAMIN MOORE OR APPROVED EQUAL.

B. ACCESSORY MATERIALS SUCH AS TURPENTINE / THINNER / UNSEEDED OIL SHALL BE APPROVED BY THE COATING MANUFACTURE.

C. THE NUMBER OF COATS IS TO BE THREE MINIMUM. ADDITIONAL COATS SHALL BE APPLIED

AT NO ADDITIONAL COST IF NECESSARY TO COMPLETELY HIDE BASE MATERIALS, PRODUCE UNIFORM COLOR, AND PROVIDE SATISFACTORY FINISH RESULTS.

D. APPLICATION AND SURFACE PREPARATION SHALL BE DONE ACCORDING TO MANUFACTURER'S WRITTEN SPECIFICATIONS AND APPLICATION INSTRUCTIONS. ALL FINISHES SHALL BE APPLIED EVENLY AND BE FREE OF RUNS, SAGS, SKIPS. CRAWLS OR DEFECTS.

E. THE CONTRACTOR SHALL PROTECT HIS OWN WORK, AND ADJACENT WORK AND MATERIALS, WITH SUITABLE COVERINGS OR MASKINGS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR CLEANING THE AREA OF HIS WORK AS WELL AS REMOVAL OF EXCESS MATERIAL (EITHER FROM ADJACENT SURFACES OR EXTRA MATERIALS).

F. SURFACES TO BE PAINTED OR STAINED SHALL BE FREE OF OIL GREASE, LOOSE PAINT, OR OTHER FOREIGN MATERIAL.

6. VERIFY FINISHES ON SIGNAGE WITH ARCHITECT. ALL METAL PAINT TO BE AUTO BODY PAINT.

CABINET WORK

1. MAKE ALL FINISHED WORK PER THE DETAILED DRAWINGS AND GRADE REQUIREMENTS OF THE WOODWORK INSTITUTE , 'MANUAL OR MILLWORK' (W.I.C.)

2. TAKE SUCH FIELD MEASUREMENTS AS MAY BE REQUIRED.

3. ALL FINISHED WOOD AND CABINET MATERIALS SHALL HAVE MOISTURE CONTENT NOT EXCEEDING 12 % BY WEIGHT.

4. PLASTIC LAMINATE FINISHING SHALL CONFORM TO REQUIREMENTS OF ARCHITECTURAL WOODWORK INSTITUTE. 'QUALITY STANDARDS' FOR 'CUSTOM' GRADE AND NOTES CONTAINED HEREIN.

5. INSTALLATION
INSTALL UNITS LEVEL AND PLUMB WITH TIGHT JOINTS BETWEEN ANY MULTIPLE UNITS. SCRIBE TO WALL AND OTHER SURFACES AS REQUIRED. ADJUST ALL DRAWERS, DOORS AND MOVABLE PARTS TO OPERATE EASILY AND SMOOTHLY WITHOUT BINDING.

6. ALL DRAWERS TO BE FULL EXTENSION SIDES WITH A 75 LBS. LOAD CAPACITY.

7. ALL CORIAN COUNTERTOP JOINTS TO BE EQUALLY SPACED.

8. MILLWORK CONTRACTOR IS TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

9. THE GENERAL CONTRACTOR AND MILLWORK CONTRACTOR ARE TO COORDINATE AND INSTALL ALL REQUIRED BLOCKING. ANGLE BRACES, SUPPORTS, ETC. TO ADEQUATELY SUPPORT ALL COUNTERS.

10. FINISHES
COUNTERTOP FINISH — PER FINISH SCHEDULE
CABINET FACES — PER FINISH SCHEDULE

11. HARDWARE — PER FLOOR PLAN AND FINISH SCHEDULE (TYP.)
HINGE — TEN MFG. INC. SELF CLOSING HINGE – PAT. #5.103.532 PROVIDED BY EB. BRADLEY MODEL #TNI – CONTACT: (213) 585-9201

ELECTRICAL

1. BOTTOM OF ELECTRICAL AND DATA RECEPTACLE OUTLETS SHALL BE INSTALLED NOT LESS THAN 15' ABOVE THE FLOOR OR WORKING PLATFORM.

2. THE TOP OF THE GRIP OF THE OPERATING HANDLE OF CONTROLS OR SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES. OR COOLING, HEATING, AND VENTILATING EQUIPMENT SHALL NOT BE MORE THAN 48" ABOVE THE FLOOR OR WORKING PLATFORM.

3. THE CENTER OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48" ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE OR SIDEWALK.

4. THE INSTALLATION OF FIRE ALARM EQUIPMENT AND SYSTEMS IN ANY OCCUPANCY WITHIN THE SCOPE OF THESE REGULATIONS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE LOCAL CODES.

HAZARDS AND PROTRUDING OBJECTS

1. OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27" AND 80" ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES

2. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27" ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT INTO WALKS, HALLS, CORRIDORS, PASSAGE WAYS OR AISLES.

3. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS MAY OVERHANG 12" MAXIMUM FROM 27" TO 80" ABOVE THE GROUND OR FINISHED FLOOR.

4. PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.

5. WALKS, HALLS, CORRIDORS, PASSAGEWAYS, AISLES OR OTHER CIRCULATION SPACES SHALL HAVE 80" MINIMUM CLEAR HEAD ROOM.

6. ANY OBSTRUCTION THAT OVERHANGS A PEDESTRIAN WAY SHALL BE A MINIMUM OF 80" ABOVE THE WALKING SURFACE AS MEASURED FROM THE BOTTOM OF THE OBSTRUCTION.

7. ALL ROOF PENETRATIONS MUST BE COMPLETED BY THE LANDLORD'S DESIGNATED ROOFING CONTRACTOR AT THE TENANTS EXPENSE.

8. THE TENANT SHALL SLEEVE, FIRE STOP, FLASH AND CAULK ALL FLOOR PENETRATIONS SO THAT THE ODORS AND LIQUIDS WILL NOT PENETRATE THE SLAB AT THE OPENINGS.

SIGNAGES

1. THE SIGNAGE AT THE STOREFRONT WILL BE CONTRACTED DIRECTLY BY THE OWNER. THE GENERAL CONTRACTOR MUST PROVIDE THE REQUIRED J-BOXES AS WELL AS ACCESS PANELS TO ALL NEON SIGNAGE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE SIGN CONTRACTOR AND MAKING SURE THE JOB IS DONE ON TIME. FULLY DETAILED SHOP DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW. THE ACTUAL PLANS ONLY SHOW LIMITED DESIGN DETAILS AND ARE NOT ADEQUATED FOR CONSTRUCTION OF THE SIGN. A SEPARATE PERMIT WILL BE REQUIRED.

2. BARRIER LAWS FOR THE PHYSICALLY HANDICAPPED. (BELOW ARE MINIMUM GUIDELINES PER TITLE 24). SHOULD THERE BE A CONFLICT BETWEEN THESE MINIMUM REQUIREMENTS AND WHAT IS CALLED FOR ON THE DRAWINGS. THE CONTRACTOR IS TO INFORM THE ARCHITECT PRIOR TO PROCEEDING WITH WORK SO AFFECTED.

MECHANICAL REQUIREMENTS

1. LANDLORD'S HVAC AND FAN UNITS' STEEL FRAMING DETAIL FOR ROOF TOP UNITS. PROVIDE PLAN LOCATION OF THE ROOF TOP HVAC AND FAN UNIT.

2. THE TENANT'S HVAC AND EXHAUST SYSTEMS MUST BE BALANCED AT THE TENANT'S EXPENSE PRIOR TO OPENING FOR BUSINESS, TO COMPLY THE LANDLORD-APPROVED WORKING DRAWINGS. A CERTIFIED AIR BALANCE CONTRACTOR, APPROVED BY THE LANDLORD AND NOT AFFILIATED WITH THE TENANT'S MECHANICAL CONTRACTOR, SHALL PERFORM THE BALANCING AND SUBMIT A REPORT TO THE LANDLORD.

1.g

Winchel

ARCHITECT
GARY W
& ASSOCIATES, I
1255 Corporate Center Dr., PH 8
Monterey Park, CA 91754
TEL: (626) 288-6898 FAX: (626)
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STAMP

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BL
MORENO VALLEY, CA 92

ISSUE DATE:	
1ST	040114 – 1ST SUB TO PLANNI
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER
ARCH PROJECT #: 14-074

DRAWN BY
AD,GC,& CL

SHEET CONTENT
GENERAL NOTES

SHEET NO
G-10(

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107

CONDITIONS OF APPROVAL

PUBLIC WORKS DEPARTMENT

Special Districts Division

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following items are the Special Districts Division's Conditions of Approval for project PA14-0013; 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.

General Conditions

SD-1 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.

SD-2 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-3 The ongoing maintenance of any landscaping required to be installed behind the curb on Day Street and Alessandro Boulevard shall be the responsibility of the property owner.

SD-4 This project is located within the Edgemont Community Services District for streetlight services. Coordination of streetlight funding requirements should be made with the Edgemont Community Services District at Edgemont Community Services District, P. O. Box 5436, Riverside, CA 92514. Phone: 951.784.2411.

Prior to Building Permit Issuance

SD-5 (BP) 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 to process prior to issuance of the first building permit to allow 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 (BP) This project is conditioned to provide a funding source for the capital improvements and/or maintenance for the Alessandro Boulevard median landscape. The Developer shall satisfy the condition with one of the options outlined below.

a. Participate in a special election (mail ballot proceeding) for improved median maintenance and pay all associated costs of the ballot process 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

b. Fund an endowment to cover the future maintenance costs of the landscaped area.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financing option when submitting the application for building permit issuance. The option for participating in a special election requires 90 days to complete the special election process to allow 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 certificate of occupancy.

SD-7 (BP) 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 to allow 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 certificate of occupancy.

SD-8 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). If participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit to allow 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. *08 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

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. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 1500 GPM for 2 hour(s) duration at 20-PSI residual operating pressure.

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. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected 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)

F3. 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)

F4. 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])

F5. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

F6. Prior to construction and issuance of building permits, all locations where structures are to be built shall have an approved Fire Department emergency vehicular access road (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. (CFC 501.4 and MV City Standard Engineering Plan 108d)

F7. Prior to construction and issuance of Building Permits, fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty-four (24) feet 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])

F8. Prior to construction, all roads, driveways and private roads shall not exceed 12 percent grade. 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 of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060) (CFC 503.2.7 and MVMC 8.36.060[G])

F9. 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)

F10. 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.

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.

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)

F11. 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 MV City Standard Engineering Plan 422 a, b, c)

F12. 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 and rear access locations. The numerals shall be a minimum of six (6) inches in height for buildings and six (6) inches in height for suite identification on a contrasting background. (CFC 505.1, MVMC 8.36.060[I])

F13. 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 Chief. 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)

BUILDING 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, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2013 CBC.

B2. 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).

B3. 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.

B4. 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.

B5. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B6. 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.

B7. 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.

B8. The proposed project will be subject to approval by the Box Springs Mutual Water Company and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.653.6419 for specific details.

B9. 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)

B10. 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).

B11. Contact the Building Safety Division for permit application submittal requirements.

B12. **If submitted after January 1, 2017 all building codes will change to the new 2016 California model codes.***

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Winchel

ARCHITECT

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STAMP

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BL
MORENO VALLEY, CA 92

ISSUE DATE:	
1ST	040114 – 1ST SUB TO PLANNI
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER

ARCH PROJECT #: 14-074

DRAWN BY

AD,GC,& CL

SHEET CONTENT

CONDITIONS OF APPRO

SHEET NO

G-10

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107

ACCESSIBILITY REQUIREMENTS

A. APPLICATION AND ADMINISTRATION

1. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AND ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS. THESE REQUIREMENTS APPLY TO TEMPORARY AND PERMANENT BUILDINGS AND FACILITIES. §11B–201

2. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION AND SHALL COMPLY WITH 11B–202.4 PATH OF TRAVEL REQUIREMENTS. §11B–202.2

3. EACH EXISTING ELEMENT OR SPACE THAT IS ALTERED SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF DIVISION 2, INCLUDING 11B–202.4 PATH OF TRAVEL REQUIREMENTS UNLESS THE BUILDING OFFICIAL DETERMINES COMPLIANCE WITH APPLICABLE REQUIREMENTS IS TECHNICALLY INFEASIBLE AND THE ALTERATION COMPLIES WITH THE REQUIREMENTS TO THE MAXIMUM EXTENT FEASIBLE OR PROVIDES EQUIVALENT FACILITATION. §11B–202.3

4. WHEN ALTERATIONS OR ADDITIONS ARE MADE TO EXISTING BUILDINGS OR FACILITIES, AN ACCESSIBLE PATH OF TRAVEL TO THE SPECIFIC AREA OF ALTERATION OR ADDITION SHALL BE PROVIDED UNLESS OTHERWISE EXEMPT. §11B–202.4

5. PRIMARY ACCESSIBLE PATH OF TRAVEL SHALL INCLUDE A PRIMARY ENTRANCE TO THE BUILDING OR FACILITY; TOILET AND BATHING FACILITIES SERVING THE AREA; DRINKING FOUNTAINS SERVING THE AREA; PUBLIC TELEPHONES SERVING THE AREA, AND SIGNS. §11B–202.4

B. BUILDING BLOCKS

FLOOR OR GROUND SURFACES

1. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT. §11B–302.1

2. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE ½ INCH MAXIMUM. §11B–302.2, FIGURE 11B–302.2

3. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH 11B–303 CHANGES IN LEVEL. §11B–302.2

4. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN ½ INCH IN DIAMETER. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL. §11B–302.3, FIGURE 11B–302.3

CHANGES IN LEVEL

5. VERTICAL CHANGES IN LEVEL FOR FLOOR OR GROUND SURFACES MAY BE ¼ INCH HIGH MAXIMUM AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL GREATER THAN ¼ INCH AND NOT EXCEEDING ½ INCH IN HEIGHT SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2. §11B–303, FIGURES 11B–303.2 & 11B–303.3

6. CHANGES IN LEVEL GREATER THAN ½ INCH IN HEIGHT SHALL BE RAMPED AND SHALL COMPLY WITH THE REQUIREMENTS OF 11B–405 RAMPS OR 11B–406 CURB RAMPS AS APPLICABLE. §11B–303

7. ABRUPT CHANGES IN LEVEL EXCEEDING 4 INCHES IN A VERTICAL DIMENSION BETWEEN WALKS, SIDEWALKS OR OTHER PEDESTRIAN WAYS AND ADJACENT SURFACES OR FEATURES SHALL BE IDENTIFIED BY WARNING CURBS AT LEAST 6 INCHES IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE OR BY GUARDS OR HANDRAILS WITH A GUIDE RAIL CENTERED 2 INCHES MINIMUM AND 4 INCHES MAXIMUM ABOVE THE SURFACE OF THE WALK OR SIDEWALK. THESE REQUIREMENTS DO NOT APPLY BETWEEN A WALK OR SIDEWALK AND AN ADJACENT STREET OR DRIVEWAY. §11B–303.5

TURNING SPACE

8. TURNING SPACES SHALL MEET THE REQUIREMENTS OF 11B–302 FLOOR OR GROUND SURFACES EXCEPT THAT CHANGES IN LEVEL ARE NOT PERMITTED. TURNING SPACES SHALL BE EITHER CIRCULAR OR T–SHAPED. DOORS MAY SWING INTO TURNING SPACES. §11B–304

9. CIRCULAR TURNING SPACES SHALL BE A SPACE OF 60 INCHES DIAMETER MINIMUM AND MAY INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 11B–306 KNEE AND TOE CLEARANCE. §11B–304.3.1

10. T–SHAPED TURNING SPACES SHALL BE A T–SHAPED SPACE WITHIN A 60 INCH SQUARE MINIMUM WITH ARMS AND BASE 36 INCHES WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12 INCHES MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24 INCHES MINIMUM. §11B–304.3.2, FIGURE 11B–304.3.2

11. T–SHAPED TURNING SPACES MAY INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 11B–306 KNEE AND TOE CLEARANCE ONLY AT THE END OF EITHER THE BASE OR ONE ARM. §11B–304.3.2

CLEAR FLOOR OR GROUND SPACE

12. CLEAR FLOOR OR GROUND SPACES SHALL MEET THE REQUIREMENTS OF 11B–302 FLOOR OR GROUND SURFACES AND SHALL NOT HAVE CHANGES IN LEVEL EXCEPT FOR SLOPES NOT STEEPER THAN 1:48 (2.083%). §11B–305

13. CLEAR FLOOR OR GROUND SPACE SHALL BE 30 INCHES MINIMUM BY 48 INCHES MINIMUM. §11B–305.3, FIGURE 11B–305.3

14. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE. §11B–305.6

15. CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT UNLESS OTHERWISE SPECIFIED. §11B–305.5, FIGURE 11B–305.5

16. CLEAR FLOOR OR GROUND SPACE MAY INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 11B–306 KNEE AND TOE CLEARANCE UNLESS OTHERWISE SPECIFIED. §11B–305.4

17. ALCOVES SHALL BE 36 INCHES WIDE MINIMUM IF THEIR DEPTH EXCEEDS 24 INCHES AND THEY PROVIDE CLEAR FLOOR OR GROUND SPACE FOR A FORWARD APPROACH. §11B–305.7, FIGURE 11B–305.7.1

18. ALCOVES SHALL BE 60 INCHES WIDE MINIMUM IF THEIR DEPTH EXCEEDS 15 INCHES AND THEY PROVIDE CLEAR FLOOR OR GROUND SPACE FOR A PARALLEL APPROACH. §11B–305.7, FIGURE 11B–305.7.2

KNEE AND TOE CLEARANCE

19. FOR LAVATORIES AND BUILT–IN DINING AND WORK SURFACES REQUIRED TO BE ACCESSIBLE, TOE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH AND 9 INCHES IN HEIGHT ABOVE THE FINISH FLOOR OR GROUND FOR A DEPTH OF 19 INCHES MINIMUM. §11B–306.2.1

20. FOR ELEMENTS REQUIRED TO PROVIDE TOE CLEARANCE OTHER THAN LAVATORIES AND BUILT–IN DINING AND WORK SURFACES, TOE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH AND 9 INCHES IN HEIGHT ABOVE THE FINISH FLOOR OR GROUND FOR A DEPTH OF 17 INCHES MINIMUM UNDER ELEMENTS REQUIRED TO BE ACCESSIBLE. §11B–306.2.3

21. SPACE EXTENDING GREATER THAN 6 INCHES BEYOND THE AVAILABLE KNEE CLEARANCE AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE. §11B–306.2.4

22. TOE CLEARANCE SHALL EXTEND 19 INCHES MAXIMUM UNDER LAVATORIES FOR TOILET AND BATHING FACILITIES AND 25 INCHES MAXIMUM UNDER OTHER ELEMENTS. §11B–306.2.2

23. AT LAVATORIES IN TOILET AND BATHING FACILITIES, KNEE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH FOR A DEPTH OF 11 INCHES AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND AND FOR A DEPTH OF 8 INCHES AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND INCREASING TO 29 INCHES HIGH MINIMUM ABOVE THE FINISH FLOOR OR GROUND AT THE FRONT EDGE OF A COUNTER WITH A BUILT–IN LAVATORY OR AT THE FRONT EDGE OF A WALL–MOUNTED LAVATORY FIXTURE. §11B–306.3.3, FIGURE 11B–306.3(C)

24. AT DINING AND WORK SURFACES REQUIRED TO BE ACCESSIBLE, KNEE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND FOR A DEPTH OF AT LEAST 19 INCHES. §11B–306.3

25. FOR ELEMENTS REQUIRED TO PROVIDE KNEE CLEARANCE EXCEPT LAVATORIES IN TOILET AND BATHING FACILITIES AND DINING AND WORK SURFACES, KNEE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH FOR A DEPTH OF 11 INCHES AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND AND FOR A DEPTH OF 8 INCHES AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–306.3, FIGURE 11B–306.3(A)

26. EXCEPT FOR DINING AND WORK SURFACES, KNEE CLEARANCE MAY REDUCE AT A RATE OF 1 INCH IN DEPTH FOR EACH 6 INCHES BETWEEN 9 INCHES AND 27 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–306.3.4, FIGURE 11B–306.3

27. KNEE CLEARANCE SHALL EXTEND 25 INCHES MAXIMUM UNDER AN ELEMENT AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–306.3.2

PROTRUDING OBJECTS

28. EXCEPT FOR HANDRAILS, OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND LESS THAN 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE NO MORE THAN 4 INCHES HORIZONTALLY INTO THE CIRCULATION PATH. HANDRAILS MAY PROTRUDE 4½ INCHES MAXIMUM. §11B–307.2, FIGURE 11B–307.2

29. FREE–STANDING OBJECTS MOUNTED ON POSTS OR PYLONS SHALL OVERHANG CIRCULATION PATHS NO MORE THAN 12 INCHES WHEN LOCATED FROM 27 TO 80 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–307.3, FIGURE 11B–307.3(A)

30. PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH REQUIRED FOR ACCESSIBLE ROUTES. §11B–307.5

31. LOWEST EDGE OF A SIGN OR OTHER OBSTRUCTION, WHEN MOUNTED BETWEEN POSTS OR PYLONS SEPARATED WITH A CLEAR DISTANCE GREATER THAN 12 INCHES, SHALL BE LESS THAN 27 INCHES OR MORE THAN 80 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–307.3, FIGURE 11B–307.3(B)

32. EDGE OF SIGNS OR OTHER OBJECTS, WHEN MOUNTED ON POSTS OR PYLONS WITH THEIR BOTTOM EDGES LESS THAN 80 INCHES ABOVE THE FLOOR OR GROUND SURFACE, SHALL BE ROUNDED OR EASED AND THE CORNERS SHALL HAVE A MINIMUM RADIUS OF ⅛ INCH. §11B–307.3.1

33. VERTICAL CLEARANCE SHALL BE AT LEAST 80 INCHES HIGH ON CIRCULATION PATHS EXCEPT AT DOOR CLOSERS AND DOOR STOPS, WHICH MAY BE 78 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B–307.4

34. GUARDRAILS OR OTHER BARRIERS WITH A LEADING EDGE LOCATED 27 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE ON CIRCULATION PATHS IS LESS THAN 80 INCHES HIGH. §11B–307.4, FIGURE 11B–307.4

35. WHERE A GUY SUPPORT IS USED PARALLEL TO A CIRCULATION PATH, INCLUDING BUT NOT LIMITED TO SIDEWALKS, A GUY BRACE, SIDEWALK GUY OR SIMILAR DEVICE SHALL BE USED TO PREVENT AN OVERHANGING OBSTRUCTION. §11B–307.4

REACH RANGES

36. ELECTRICAL CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED WITHIN ALLOWABLE REACH RANGES. LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. §11B–308.1.1

37. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED WITHIN ALLOWABLE REACH RANGES. LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. §11B–308.1.2

38. HIGH FORWARD REACH THAT IS UNOBSTRUCTED SHALL BE 48 INCHES MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B–308.2.1, FIGURE 11B–308.2.1

39. HIGH FORWARD REACH SHALL BE 48 INCHES MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES OR LESS AND 44 INCHES MAXIMUM WHERE THE REACH DEPTH EXCEEDS 20 INCHES. HIGH FORWARD REACH SHALL NOT EXCEED 25 INCHES IN DEPTH. §11B–308.2.2, FIGURE 11B–308.2.2

40. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE OBSTRUCTION. §11B–308.2.2

41. HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR WHERE THE SIDE REACH IS UNOBSTRUCTED OR THE DEPTH OF ANY OBSTRUCTION DOES NOT EXCEED 10 INCHES. §11B–308.3.1, FIGURE 11B–308.3.1

42. HIGH SIDE REACH SHALL BE 46 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND WHERE THE HIGH SIDE REACH IS OVER AN OBSTRUCTION MORE THAN 10 INCHES BUT NOT MORE THAN 24 INCHES IN DEPTH. §11B–308.3.2, FIGURE 11B–308.3.2

43. OBSTRUCTIONS FOR HIGH SIDE REACH SHALL NOT EXCEED 34 INCHES IN HEIGHT AND 24 INCHES IN DEPTH. §11B–308.3.2, FIGURE 11B–308.3.2

OPERABLE PARTS

44. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL BE PROVIDED A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 11B–305 CLEAR FLOOR OR GROUND SPACE AND BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN 11B–308 REACH RANGES. §11B–309.2

45. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAXIMUM. §11B–309.4

46. ELEMENTS THAT ARE EXEMPT FROM ALL REQUIREMENTS FOR OPERABLE PARTS REQUIREMENTS INCLUDE ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE; FLOOR ELECTRICAL RECEPTACLES; HVAC DIFFUSERS, EXERCISE MACHINES AND EXERCISE EQUIPMENT AND THOSE OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL. §11B–205.1

47. EXCEPT FOR LIGHT SWITCHES, WHERE REDUNDANT CONTROLS ARE PROVIDED FOR A SINGLE ELEMENT, ONE CONTROL IN EACH SPACE SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B–309 OPERABLE PARTS. §11B–205.1

C. ACCESSIBLE ROUTES

WHERE REQUIRED

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE. WHERE MORE THAN ONE ROUTE IS PROVIDED, ALL ROUTES MUST BE ACCESSIBLE. §11B–206.2.1 (SEE EXCEPTIONS)

2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE. §11B–206.2.2 (SEE EXCEPTION)

3. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI–STORY BUILDINGS AND FACILITIES. §11B–206.2.3 (SEE EXCEPTIONS)

4. IN ALTERATIONS AND ADDITIONS, WHERE AN ESCALATOR OR STAIR IS PROVIDED WHERE NONE EXISTED PREVIOUSLY AND MAJOR STRUCTURAL MODIFICATIONS ARE NECESSARY FOR THE INSTALLATION, AN ACCESSIBLE ROUTE SHALL BE PROVIDED BETWEEN THE LEVELS SERVED BY THE ESCALATOR OR STAIR. §11B–206.2.3.1 (SEE EXCEPTIONS)

5. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS WITHIN THE BUILDING OR FACILITY, INCLUDING MEZZANINES, WHICH ARE OTHERWISE CONNECTED BY A CIRCULATION PATH. §11B–206.2.4 (SEE EXCEPTIONS)

6. ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREA AS GENERAL CIRCULATION PATHS. WHERE CIRCULATION PATHS ARE INTERIOR, REQUIRED ACCESSIBLE ROUTES SHALL ALSO BE INTERIOR; AN ACCESSIBLE ROUTE SHALL NOT PASS THROUGH KITCHENS, STORAGE ROOMS, RESTROOMS, CLOSETS OR OTHER SPACES USED FOR SIMILAR PURPOSES, EXCEPT AS PERMITTED BY CHAPTER 10. §11B–206.3

7. IN RESTAURANTS, CAFETERIAS, BANQUET FACILITIES, BARS, AND SIMILAR FACILITIES, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL FUNCTIONAL AREAS, INCLUDING RAISED OR SUNKEN AREAS, AND OUTDOOR AREAS. §11B–206.2.5

8. COMMON USE CIRCULATION PATHS WITHIN EMPLOYEE WORK AREAS SHALL COMPLY WITH 11B–402 ACCESSIBLE ROUTES. §11B–206.2.8 (SEE EXCEPTIONS)

ENTRANCES

9. ENTRANCES SHALL BE PROVIDED IN ACCORDANCE WITH 11B–206.4 ENTRANCES. ENTRANCE DOORS, DOORWAYS, AND GATES SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES AND SHALL BE ON AN ACCESSIBLE ROUTE COMPLYING WITH 11B–402 ACCESSIBLE ROUTES; (SEE EXCEPTIONS). §11B–206.4

10. ALL ENTRANCES AND EXTERIOR GROUND–FLOOR EXITS TO BUILDINGS AND FACILITIES SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.4.1

11. WHERE DIRECT ACCESS IS PROVIDED FOR PEDESTRIANS FROM A PARKING STRUCTURE TO A BUILDING OR FACILITY ENTRANCE, EACH DIRECT ACCESS TO THE BUILDING OR FACILITY ENTRANCE SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.4.2

12. EXCEPT SELF–SERVICE STORAGE FACILITIES, ALL ENTRANCES TO EACH TENANCY IN A FACILITY SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.4.5

TECHNICAL REQUIREMENTS FOR ACCESSIBLE ROUTES

13. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20 (5%), DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS. §11B–402.2

14. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2.083%). §11B–403.3

15. EXCEPT AT TURNS OR PASSING SPACES, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES MINIMUM. §11B–403.5.1

16. THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32 INCHES MINIMUM FOR A LENGTH OF 24 INCHES MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48 INCHES LONG MINIMUM AND 36 INCHES WIDE MINIMUM. §11B–403.5.1 EXCEPTION 1

17. THE CLEAR WIDTH FOR WALKING SURFACES IN CORRIDORS SERVING AN OCCUPANT LOAD OF 10 OR MORE SHALL BE 44 INCHES MINIMUM. §11B–403.5.1 EXCEPTION 2

18. THE CLEAR WIDTH FOR SIDEWALKS AND WALKS SHALL BE 48 INCHES MINIMUM. §11B–403.5.1 EXCEPTION 3

19. THE CLEAR WIDTH FOR AISLES SHALL BE 36 INCHES MINIMUM IF SERVING ELEMENTS ON ONLY ONE SIDE,

20. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48 INCHES WIDE, CLEAR WIDTH SHALL BE 42 INCHES MINIMUM APPROACHING THE TURN, 48 INCHES MINIMUM AT THE TURN AND 42 INCHES MINIMUM LEAVING THE TURN. §11B–403.5.2

21. FOR PASSING SPACES, AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET MAXIMUM. PASSING SPACES SHALL BE EITHER: A SPACE 60 INCHES MINIMUM BY 60 INCHES MINIMUM; OR, AN INTERSECTION OF TWO WALKING SURFACES PROVIDING A T–SHAPED SPACE COMPLYING WITH 11B–304.3.2 T–SHAPED SPACE WHERE THE BASE AND ARMS OF THE T–SHAPED SPACE EXTEND 48 INCHES MINIMUM BEYOND THE INTERSECTION. §11B–403.5.3

22. WHERE HANDRAILS ARE PROVIDED ALONG WALKING SURFACES WITH RUNNING SLOPES NOT STEEPER THAN 1:20 (5%) THEY SHALL COMPLY WITH HANDRAIL REQUIREMENTS OF 11B–505 HANDRAILS. §11B–403.6

23. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE RESTING AREAS, 5 FEET IN LENGTH, AT INTERVALS OF 400 FEET MAXIMUM. THE RESTING AREA SHALL BE AT LEAST AS WIDE AS THE WALK. THE SLOPE OF THE RESTING AREA IN ALL DIRECTIONS SHALL BE 1:48 (2.083%) MAXIMUM. §11B–403.7

DOORS, DOORWAYS AND GATES

24. DOORS, DOORWAYS, AND GATES PROVIDING USER PASSAGE SHALL BE PROVIDED IN ACCORDANCE WITH 11B–206.5 DOORS, DOORWAYS, AND GATES. §11B–206.5

25. EACH ENTRANCE TO A BUILDING OR FACILITY REQUIRED TO COMPLY WITH 11B–206.4 ENTRANCES SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.5.1

26. WITHIN A BUILDING OR FACILITY, EVERY DOOR, DOORWAY OR GATE SERVING ROOMS AND SPACES COMPLYING WITH THIS CHAPTER SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.5.2

27. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–404.1

28. MANUAL DOORS AND DOORWAYS AND MANUAL GATES INTENDED FOR USER PASSAGE SHALL COMPLY WITH 11B–404.2 MANUAL DOORS, DOORWAYS, AND MANUAL GATES. §11B–404.2

29. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE. §11B–402.2.1

30. AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES SHALL COMPLY WITH 11B–404.2.3 CLEAR WIDTH AND 11B–404.2.4 MANEUVERING CLEARANCES. §11B–404.2.2

31. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES. §11B–404.2.3

32. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 11B–404.2.4 MANEUVERING CLEARANCES. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE. §11B–404.2.4

33. SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 11B–404.2.4.1. §11B–404.2.4.1

34. DOORWAYS LESS THAN 36 INCHES WIDE WITHOUT DOORS OR GATES, SLIDING DOORS, OR FOLDING DOORS SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 11B–404.2.4.2. §11B–404.2.4.2

35. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18 INCHES OF THE LATCH SIDE AN INTERIOR DOORWAY, OR WITHIN 24 INCHES OF THE LATCH SIDE OF AN EXTERIOR DOORWAY, PROJECTS MORE THAN 8 INCHES BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE. §11B–404.2.4.3

36. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCES SHALL COMPLY WITH11B–302 FLOOR OR GROUND SURFACES. CHANGES IN LEVEL ARE NOT PERMITTED AT DOOR LANDINGS. §11B–404.2.4.4

37. THRESHOLDS, IF PROVIDED AT DOORWAYS, SHALL BE ½ INCH HIGH MAXIMUM. RAISED THRESHOLDS AND CHANGES IN LEVEL AT DOORWAYS SHALL COMPLY WITH 11B–302 FLOOR OR GROUND SURFACES AND 11B–303 CHANGES IN LEVEL. §11B–404.2.5.

38. THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN SERIES AND GATES IN SERIES SHALL BE 48 INCHES MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE. §11B–404.2.6

39. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 11B–309.4 OPERATION. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES. §11B–404.2.7

40. DOOR AND GATE CLOSING SPEED SHALL COMPLY WITH THE FOLLOWING:

A. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM. §11B–404.2.8.1

B. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM. §11B–404.2.8.2

41. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS: §11B–404.2.9

A. INTERIOR HINGED DOORS AND GATES: 5 POUNDS MAXIMUM.

B. SLIDING OR FOLDING DOORS: 5 POUNDS MAXIMUM.

C. REQUIRED FIRE DOORS: THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS.

D. EXTERIOR HINGED DOORS: 5 POUNDS MAXIMUM.

42. SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH OF THE SAME PLANE AS THE OTHER AND BE FREE OF SHARP OR ABRASIVE EDGES. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED. §11B–404.2.10

43. DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOORS OR GATES, CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43 INCHES MAXIMUM ABOVE THE FINISH FLOOR. §11B–404.2.11

44. FULL–POWERED AUTOMATIC DOORS SHALL COMPLY WITH ANSI/BHMA A156.10. LOW–ENERGY AND POWER–ASSISTED DOORS SHALL COMPLY WITH ANSI/BHMA A156.19. AUTOMATIC DOORS AND AUTOMATIC GATES SHALL COMPLY WITH THE FOLLOWING: §11B–404.3

A. DOORWAYS SHALL PROVIDE A CLEAR OPENING OF 32 INCHES MINIMUM IN POWER–ON AND POWER–OFF MODE. THE MINIMUM CLEAR WIDTH FOR AUTOMATIC DOOR SYSTEMS IN A DOORWAY SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING OF 32 INCHES WITH ONE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION. §11B–404.3.1

B. CLEARANCES AT POWER–ASSISTED DOORS AND GATES SHALL COMPLY WITH 11B–404.2.4 MANEUVERING CLEARANCES. CLEARANCES AT AUTOMATIC DOORS AND GATES WITHOUT STANDBY POWER AND SERVING AN ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 11B–404.2.4 MANEUVERING CLEARANCES. §11B–404.3.2

C. THRESHOLDS AND CHANGES IN LEVEL AT DOORWAYS SHALL COMPLY WITH 11B–404.2.5 THRESHOLDS. §11B–404.3.3

D. DOORS IN SERIES AND GATES IN SERIES SHALL COMPLY WITH 11B–404.2.6 DOORS IN SERIES AND GATES IN SERIES. §11B–404.3

E. MANUALLY OPERATED CONTROLS SHALL COMPLY WITH 11B–309 OPERABLE PARTS. THE CLEAR FLOOR SPACE ADJACENT TO THE CONTROL SHALL BE LOCATED BEYOND THE ARC OF THE DOOR SWING. §11B–404.3.5

F. WHERE DOORS AND GATES WITHOUT STANDBY POWER ARE A PART OF A MEANS OF EGRESS, THE CLEAR BREAK OUT OPENING AT SWINGING OR SLIDING DOORS AND GATES SHALL BE 32 INCHES MINIMUM WHEN OPERATED IN EMERGENCY MODE. §11B–404.3.6

G. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE. §11B–404.3.7

RAMPS

45. PROVIDE RAMP DETAILS, INCLUDING SLOPE, LANDINGS, AND HANDRAILS.

46. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12 (8.33%). §11B–405.2

47. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48 (2.083%). §11B–405.3

48. FLOOR OR GROUND SURFACES OF RAMP RUNS SHALL COMPLY WITH 11B–302 FLOOR OR GROUND SURFACES. CHANGES IN LEVEL OTHER THAN THE RUNNING SLOPE AND CROSS SLOPE ARE NOT PERMITTED ON RAMP RUNS. §11B–405.4

49. THE CLEAR WIDTH OF A RAMP RUN SHALL BE 48 INCHES MINIMUM. §11B–405.5

50. THE RISE FOR ANY RAMP RUN SHALL BE 30 INCHES MAXIMUM. §11B–405.6

51. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. §11B–405.7

52. LANDINGS SHALL COMPLY WITH 11B–302 FLOOR OR GROUND SURFACES. CHANGES IN LEVEL ARE NOT PERMITTED. §11B–405.7.1

53. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. §11B–405.7.2

54. TOP LANDINGS SHALL BE 60 INCHES WIDE MINIMUM. §11B–405.7.2.1

55. THE LANDING CLEAR LENGTH SHALL BE 60 INCHES LONG MINIMUM. §11B–405.7.3

56. BOTTOM LANDINGS SHALL EXTEND 72 INCHES MINIMUM IN THE DIRECTION OF RAMP RUN. §11B–405.7.3.1

57. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60 INCHES

58. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY 11B–404.2.4 AND 11B–404.3.2 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. DOORS, WHEN FULLY OPEN, SHALL NOT REDUCE THE REQUIRED RAMP LANDING WIDTH BY MORE THAN 3 INCHES. DOORS, IN ANY POSITION, SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE RAMP LANDING TO LESS THAN 42 INCHES. §11B–405.7.5

59. RAMP RUNS SHALL HAVE COMPLIANT HANDRAILS PER 11B–505 HANDRAILS. §11B–405.8

60. EDGE PROTECTION COMPLYING WITH 11B–405.9.2 CURB OR BARRIER SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS. §11B–405.9 (SEE EXCEPTIONS)

61. A CURB, 2 INCHES HIGH MINIMUM, OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4 INCH DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4 INCHES OF THE FINISH FLOOR OR GROUND SURFACE. TO PREVENT WHEEL ENTRAPMENT, THE CURB OR BARRIER SHALL PROVIDE A CONTINUOUS AND UNINTERRUPTED BARRIER ALONG THE LENGTH OF THE RAMP. §11B–405.9.2

62. LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER. §11B–405.10

D. GENERAL SITE AND BUILDING ELEMENTS

PARKING SPACES

1. WHERE PARKING SPACES ARE PROVIDED, ACCESSIBLE PARKING SPACES SHALL BE PROVIDED IN NUMBER AND KIND REQUIRED PER SECTION 11B–208 PARKING SPACES. §11B–208.1

2. PROVIDE ACCESSIBLE SPACES FOR EACH PARKING FACILITY (PARKING LOTS AND PARKING STRUCTURES). THE NUMBER OF PARKING SPACES REQUIRED TO BE ACCESSIBLE IS TO BE CALCULATED SEPARATELY FOR EACH PARKING FACILITY; THE REQUIRED NUMBER IS NOT BASED ON THE TOTAL NUMBER OF PARKING SPACES PROVIDED IN ALL OF THE PARKING FACILITIES PROVIDED ON SITE. §11B–208

3. ONE IN EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY SECTION 11B–208.2 MINIMUM NUMBER, BUT NOT LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 96 INCHES WIDE MINIMUM PLACED ON THE SIDE OPPOSITE THE DRIVER'S SIDE WHEN THE VEHICLE IS GOING FORWARD INTO THE PARKING SPACE AND SHALL BE DESIGNATED "VAN ACCESSIBLE". ALL SUCH SPACES MAY BE GROUPED ON ONE LEVEL OF A PARKING STRUCTURE. §11B–208.2.4, 11B–502, FIG 11B–502, 11B–502.3, & 11B–502.3.3

4. ACCESSIBLE PARKING SPACES COMPLYING WITH SECTION 11B–502 PARKING SPACES SERVING A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE ENTRANCE (AS NEAR AS PRACTICAL TO AN ACCESSIBLE ENTRANCE). §11B–208.3.1

5. IN BUILDINGS WITH MULTIPLE ACCESSIBLE ENTRANCES WITH ADJACENT PARKING, ACCESSIBLE PARKING SPACES COMPLYING WITH SECTION 11B–502 PARKING SPACES SHALL BE DISPERSED AND LOCATED CLOSEST TO THE ACCESSIBLE ENTRANCES. §11B–208.3.1

6. IN PARKING FACILITIES THAT DO NOT SERVE A PARTICULAR BUILDING OR FACILITY, ACCESSIBLE PARKING SPACES COMPLYING WITH SECTION 11B–502 PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL TO AN ACCESSIBLE PEDESTRIAN ENTRANCE OF THE PARKING FACILITY. §11B–208.3.1

RESIDENTIAL FACILITIES:

7. WHERE PARKING SPACES ARE MARKED WITH LINES, WIDTH MEASUREMENTS OF PARKING SPACES AND ACCESS AISLES SHALL BE MADE FROM THE CENTERLINE OF THE MARKINGS.] §11B–502.1 (SEE EXCEPTIONS)

8. DIMENSION MINIMUM 18 FOOT LONG CAR AND VAN ACCESSIBLE PARKING SPACE(S) AND ACCESS AISLE(S). §11B–502.2, FIGURES 11B–502.2 AND 11B–502.3

9. DIMENSION MINIMUM 9 FOOT WIDTH AT ACCESSIBLE CAR PARKING SPACE. §11B–502.2, FIG. 11B–502.2 & FIG. 11B–502.3

10. DIMENSION MINIMUM 12 FOOT WIDE ACCESSIBLE VAN PARKING SPACE WITH MINIMUM 5 FOOT WIDE ACCESS AISLE. VAN PARKING SPACES SHALL BE PERMITTED TO BE MINIMUM 9 FEET WIDE WHERE ACCESS AISLE IS 8 FOOT WIDE MINIMUM. §11B–502.2, FIGURES 11B–502.2 AND 11B–502.3

11. CAR AND VAN STALL ACCESS AISLE SHALL BE 5 FOOT WIDE MINIMUM AND SHALL ADJOIN AN ACCESSIBLE ROUTE. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE. §11B–502.3, FIGURES 11B–502.2 AND 11B–502.3

12. ACCESS AISLES SHALL EXTEND THE FULL REQUIRED LENGTH OF THE PARKING SPACES THEY SERVE. §11B–502.3.2 & FIG. 11B–502.3

13. ACCESS AISLES SHALL BE MARKED WITH A BLUE PAINTED BORDERLINE AROUND THEIR PERIMETER. THE AREA WITHIN THE BLUE BORDERLINES SHALL BE MARKED WITH HATCHED LINES A MAXIMUM OF 36 INCHES ON CENTER IN A COLOR CONTRASTING WITH THAT OF THE AISLE SURFACE, PREFERABLY BLUE OR WHITE. THE WORDS "NO PARKING" SHALL BE PAINTED ON THE SURFACE WITHIN EACH ACCESS AISLE IN WHITE LETTERS A MINIMUM OF 12 INCHES IN HEIGHT AND LOCATED TO BE VISIBLE FROM THE ADJACENT VEHICULAR WAY. ACCESS AISLE MARKINGS MAY EXTEND BEYOND THE MINIMUM REQUIRED LENGTH. §11B–502.3.3, FIGURE 11B–502.3.3

14. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES. §11B–502.3.4

15. PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH SECTION 11B–302 FLOOR OR GROUND SURFACES. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. §11B–502.4

16. CLEARLY SHOW MINIMUM VERTICAL CLEARANCE OF 8 FEET 2 INCHES AT ACCESSIBLE PARKING SPACES AND ALONG AT LEAST ONE VEHICLE ACCESS ROUTE TO SUCH SPACES FROM SITE ENTRANCES AND EXITS. §11B–502.5

SIGNAGE

17. PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH SECTION 11B–703.7.2.1 ISA. §11B–502.6, FIGURE 11B–703.7.2.1

18. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN WITH THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. §11B–502.6

19. PARKING IDENTIFICATION SIGNS SHALL BE REFLECTORIZED WITH A MINIMUM AREA OF 70 SQUARE INCHES. §11B–502.6.1

20. ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN BELOW THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL STATE "MINIMUM FINE $250." §11B–502.6.2

21. A PARKING SPACE IDENTIFICATION SIGN SHALL BE VISIBLE FROM EACH PARKING SPACE. SIGNS SHALL BE PERMANENTLY POSTED EITHER IMMEDIATELY ADJACENT TO THE PARKING SPACE OR WITHIN THE PROJECTED PARKING SPACE WIDTH AT THE HEAD END OF THE PARKING SPACE. SIGNS MAY ALSO BE PERMANENTLY POSTED ON A WALL AT THE INTERIOR END OF THE PARKING SPACE. §11B–502.6.3

22. EACH ACCESSIBLE CAR AND VAN SPACE SHALL HAVE SURFACE IDENTIFICATION COMPLYING WITH EITHER OF THE FOLLOWING SCHEMES: §11B–502.6.4

A. THE PARKING SPACE SHALL BE MARKED WITH AN INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH SECTION 11B–703.7.2.1 ISA IN WHITE ON A BLUE BACKGROUND A MINIMUM 36 INCHES WIDE BY 36 INCHES HIGH. THE CENTERLINE OF THE ISA SHALL BE A MAXIMUM OF 6 INCHES FROM THE CENTERLINE OF THE PARKING SPACE, ITS SIDES PARALLEL TO THE LENGTH OF THE PARKING SPACE AND ITS LOWER CORNER AT, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE LENGTH. §11B–502.6.4.1

B. THE PARKING SPACE SHALL BE OUTLINED OR PAINTED BLUE AND SHALL BE MARKED WITH AN INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH SECTION 11B–703.7.2.1 ISA A MINIMUM 36 INCHES WIDE BY 36 INCHES HIGH IN WHITE OR A SUITABLE CONTRASTING COLOR. THE CENTERLINE OF THE ISA SHALL BE A MAXIMUM OF 6 INCHES FROM THE CENTERLINE OF THE PARKING SPACE, ITS SIDES PARALLEL TO THE LENGTH OF THE PARKING SPACE AND ITS LOWER CORNER AT, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE. §11B–502.6.4.2

23. AN ADDITIONAL SIGN SHALL BE POSTED EITHER; 1) IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO AN OFF–STREET PARKING FACILITY OR 2) IMMEDIATELY ADJACENT TO ON–SITE ACCESSIBLE PARKING AND VISIBLE FROM EACH PARKING SPACE. §11B–502.8

A. THE ADDITIONAL SIGN SHALL NOT BE LESS THAN 17 INCHES WIDE BY 22 INCHES HIGH. §11B–502.8.1

B. THE ADDITIONAL SIGN SHALL CLEARLY STATE IN LETTERS WITH A MINIMUM HEIGHT OF 1 INCH THE FOLLOWING: §11B–502.8.2

"UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT: ________________________ OR BY TELEPHONING________________________."

BLANK SPACES SHALL BE FILLED IN WITH APPROPRIATE INFORMATION AS A PERMANENT PART OF THE SIGN.

RELATIONSHIP TO ACCESSIBLE ROUTES

24. PARKING SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT PERSONS USING THEM ARE NOT REQUIRED TO TRAVEL BEHIND PARKING SPACES OTHER THAN TO PASS BEHIND THE PARKING SPACE IN WHICH THEY PARKED. §11B–502.7.1

25. A CURB OR WHEEL STOP SHALL BE PROVIDED IF REQUIRED TO PREVENT ENCROACHMENT OF VEHICLES OVER THE REQUIRED CLEAR WIDTH OF ADJACENT ACCESSIBLE ROUTES. §11B–502.7.2

HANDRAILS

26. HANDRAILS PROVIDED ALONG WALKING SURFACES COMPLYING WITH SECTION 11B–403 WALKING SURFACES, REQUIRED AT RAMPS COMPLYING WITH SECTION 11B–405 RAMPS, AND REQUIRED AT STAIRS COMPLYING WITH SECTION 11B–504 STAIRWAYS SHALL COMPLY WITH SECTION 11B–505 HANDRAILS. §11B–505.1

27. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. §11B–505.2

28. HANDRAILS SHALL BE CONTINUOUS WITHIN THE FULL LENGTH OF EACH STAIR FLIGHT OR RAMP RUN. INSIDE HANDRAILS ON SWITCHBACK OR DOGLEG STAIRS AND RAMPS SHALL BE CONTINUOUS BETWEEN FLIGHTS OR RUNS. §11B–505.3

29. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34 INCHES MINIMUM AND 38 INCHES MAXIMUM VERTICALLY ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES. HANDRAILS SHALL BE AT A CONSISTENT HEIGHT ABOVE WALKING SURFACES, STAIR NOSINGS, AND RAMP SURFACES. §11B–505.4

30. CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACES AND ADJACENT SURFACES SHALL BE 1½ INCHES MINIMUM. HANDRAILS MAY BE LOCATED IN A RECESS IF THE RECESS IS 3 INCHES MAXIMUM DEEP AND 18 INCHES MINIMUM CLEAR ABOVE THE TOP OF THE HANDRAIL. §11B–505.5

31. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOMS OF HANDRAIL GRIPPING SURFACES SHALL NOT BE OBSTRUCTED FOR MORE THAN 20 PERCENT OF THEIR LENGTH. WHERE PROVIDED, HORIZONTAL PROJECTIONS SHALL OCCUR 1½ INCHES MINIMUM BELOW THE BOTTOM OF THE HANDRAIL GRIPPING SURFACE. §11B–505.6

32. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1¼ INCHES MINIMUM AND 2 INCHES MAXIMUM. §11B–505.7.1

33. HANDRAIL GRIPPING SURFACES WITH A NON–CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 6¼ INCHES MAXIMUM, AND A CROSS–SECTION DIMENSION OF 2¼ INCHES MAXIMUM. §11B–505.7.2

34. HANDRAIL GRIPPING SURFACES AND ANY SURFACES ADJACENT TO THEM SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES. §11B–505.8

35. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS. §11B–505.9

36. HANDRAIL GRIPPING SURFACES SHALL EXTEND BEYOND AND IN THE SAME DIRECTION OF STAIR FLIGHTS AND RAMP RUNS IN ACCORDANCE WITH SECTION 11B–505.10 HANDRAIL EXTENSIONS. §11B–505.10

37. RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12 INCHES MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN. §11B–505.10.1

38. AT THE TOP OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12 INCHES MINIMUM BEGINNING DIRECTLY ABOVE THE FIRST RISER NOSING. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT. §11B–505.10.2

39. AT THE BOTTOM OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND AT THE SLOPE OF THE STAIR FLIGHT FOR A HORIZONTAL DISTANCE EQUAL TO ONE TREAD DEPTH BEYOND THE LAST RISER NOSING. SUCH EXTENSION SHALL CONTINUE WITH A HORIZONTAL EXTENSION OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT OR SHALL RETURN TO A WALL, GUARD, OR THE WALKING SURFACE. AT THE BOTTOM OF A STAIR FLIGHT, A HORIZONTAL EXTENSION OF A HANDRAIL SHALL BE 12 INCHES LONG MINIMUM AND A HEIGHT EQUAL TO THAT OF THE SLOPING PORTION OF THE HANDRAIL AS MEASURED ABOVE THE STAIR NOSINGS. EXTENSION SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT. §11B–505.10.3

E. PLUMBING FIXTURES AND FACILITIES

DRINKING FOUNTAINS

1. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 11B–213 TOILET FACILITIES AND BATHING FACILITIES. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED IN FACILITIES PERMITTED BY 11B–206.2.3 MULTI–STORY BUILDINGS AND FACILITIES EXCEPTIONS 1 AND 2 NOT TO CONNECT STORIES BY AN ACCESSIBLE ROUTE, TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE. §11B–213.1

2. WHERE SEPARATE TOILET FACILITIES ARE PROVIDED FOR THE EXCLUSIVE USE OF SEPARATE USER GROUPS, THE TOILET FACILITIES SERVING EACH USER GROUP SHALL COMPLY WITH 11B–213 TOILET FACILITIES AND BATHING FACILITIES. §11B–213.1.1

3. WHERE TOILET ROOMS ARE PROVIDED, EACH TOILET ROOM SHALL COMPLY WITH 11B–603 TOILET AND BATHING ROOMS. WHERE BATHING ROOMS ARE PROVIDED, EACH BATHING ROOM SHALL COMPLY WITH 11B–603 TOILET AND BATHING ROOMS. §11B–213.2 SEE EXCEPTIONS

4. UNISEX TOILET ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND NOT MORE THAN TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS SHALL CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL HAVE PRIVACY LATCHES. §11B–213.2.1

5. PLUMBING FIXTURES AND ACCESSORIES PROVIDED IN A TOILET ROOM OR BATHING ROOM REQUIRED TO COMPLY WITH 11B–213.2 TOILET AND BATHING ROOMS SHALL COMPLY WITH 11B–213.3 PLUMBING FIXTURES AND ACCESSORIES. §11B–213.3

6. DOOR SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. OTHER THAN THE DOOR TO THE ACCESSIBLE WATER CLOSET COMPARTMENT, A DOOR IN ANY POSITION, MAY ENCROACH INTO THE TURNING SPACE BY 12 INCHES MAXIMUM. §11B–603.2.3

7. AT SINGLE USER TOILET OR BATHING ROOMS, DOORS SHALL BE PERMITTED TO SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE ONLY IF A 30 INCH BY 48 INCH MINIMUM CLEAR FLOOR SPACE IS PROVIDED WITHIN THE ROOM BEYOND THE ARC OF THE DOOR SWING. §11B–603.2.3 EXCEPTION

8. MIRRORS LOCATED ABOVE THE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITHIN THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT LOCATED ABOVE THE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B–603.3

9. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN SECTION 11B–308. SHELVES SHALL BE LOCATED 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR. MEDICINE CABINETS SHALL BE LOCATED WITH A USABLE SHELF NO HIGHER THAN 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR. §11B–603.4

10. WHERE TOWEL OR SANITARY NAPKIN DISPENSERS, WASTE RECEPTACLES, OR OTHER ACCESSORIES ARE PROVIDED IN TOILET FACILITIES, AT LEAST ONE OF EACH TYPE SHALL BE LOCATED ON AN ACCESSIBLE ROUTE. ALL OPERABLE PARTS, INCLUDING COIN SLOTS, SHALL BE 40 INCHES MAXIMUM ABOVE THE FINISH FLOOR. §11B–603.5

11. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 17 INCHES MINIMUM TO 18 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT THAT THE WATER CLOSET SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION IN THE AMBULATORY ACCESSIBLE TOILET COMPARTMENT SPECIFIED IN SECTION 11B–604.8.2 AMBULATORY ACCESSIBLE COMPARTMENTS. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT–HAND OR RIGHT–HAND APPROACH. §11B–604.2

12. CLEARANCE AROUND A WATER CLOSET SHALL BE 60 INCHES MINIMUM MEASURED PERPENDICULAR FROM THE SIDE WALL AND 56 INCHES MINIMUM MEASURED PERPENDICULAR FROM THE REAR WALL. A MINIMUM 60 INCHES WIDE AND 48 INCHES DEEP MANEUVERING SPACE SHALL BE PROVIDED IN FRONT OF THE WATER CLOSET. §11B–604.3.1

13. THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG THE RETURN TO A LIFTED POSITION. SEATS SHALL BE 2 INCHES HIGH MAXIMUM AND A 3 INCH HIGH SEAT SHALL BE PERMITTED ONLY IN ALTERATIONS WHERE THE EXISTING FIXTURE IS LESS THAN 15 INCHES HIGH. §11B–604.4 (SEE EXCEPTION FOR RESIDENTIAL UNITS)

14. GRAB BARS SHALL BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL. WHERE SEPARATE GRAB BARS ARE REQUIRED ON ADJACENT WALLS AT A COMMON MOUNTING HEIGHT, AN L–SHAPED GRAB BAR MEETING THE DIMENSIONAL REQUIREMENTS OF SECTIONS 11B–604.5.1 SIDE WALL AND 11B–604.5.2 REAR WALL SHALL BE PERMITTED. §11B–604.5

15. THE SIDE WALL GRAB BARS SHALL BE 42 INCHES LONG MINIMUM, LOCATED 12 INCHES MAXIMUM FROM THE REAR WALL AND EXTENDING 54 INCHES MINIMUM FROM THE REAR WALL WITH THE FRONT END POSITIONED 24 INCHES MINIMUM IN FRONT OF THE WATER CLOSET. §11B–604.5.1

16. THE REAR GRAB BAR SHALL BE 36 INCHES LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12 INCHES MINIMUM ON ONE SIDE AND 24 INCHES MINIMUM ON THE OTHER SIDE. §11B–604.5.2 (SEE EXCEPTIONS)

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ISSUE DATE:

1ST	040114 – 1ST SUB TO PLANNIN
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER

ARCH PROJECT #: 14-074

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Attachment: Project Plans (2903 : PEN16-0107)

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ACCESSIBILITY REQUIREMENTS CONT.

17. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH SECTION 11B-309.4 OPERATION EXCEPT THEY SHALL BE LOCATED 44 INCHES MAXIMUM ABOVE THE FLOOR. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH SECTION 11B-604.8.2 AMBULATORY ACCESSIBLE COMPARTMENTS. §11B-604.6

18. TOILET PAPER DISPENSERS SHALL COMPLY WITH SECTION 11B-309.4 OPERATION AND SHALL BE 7 INCHES MINIMUM AND 9 INCHES MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE BELOW THE GRAB BAR, 19 INCHES MINIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND THE GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROL DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW. §11B-604.7

19. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF SECTIONS 11B-604.8.1 WHEELCHAIR ACCESSIBLE COMPARTMENTS AND 11B-604.8.3 COAT HOOKS AND SHELVES. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH SECTION 11B-603 TOILET AND BATHING ROOMS. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH SECTIONS 11B-604.8.2 AMBULATORY ACCESSIBLE COMPARTMENTS AND 11B-604.8.3 COAT HOOKS AND SHELVES. §11B-604.8

20. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60 INCHES WIDE MINIMUM MEASURE PERPENDICULAR TO THE SIDE WALL, AND 56 INCHES DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59 INCHES DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60 INCHES WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 59 INCHES DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. §11B-604.8.1.1

21. IN A WHEELCHAIR ACCESSIBLE COMPARTMENT WITH AN IN-SWING DOOR, A MINIMUM 60 INCHES WIDE BY 36 INCHES DEEP MANEUVERING SPACE SHALL BE PROVIDED IN FRONT OF THE CLEARANCE REQUIRED IN SECTION 11B-604.8.1.1 WHEELCHAIR ACCESSIBLE COMPARTMENT SIZE. §11B-604.8.1.1.1, FIGURES 11B-604.8.1.1.2(B) AND 11B-604.8.1.1.3(B)

22. IN A WHEELCHAIR ACCESSIBLE COMPARTMENT WITH A SIDE-OPENING DOOR, EITHER IN-SWINGING OR OUT-SWINGING, A MINIMUM 60 INCHES WIDE AND 60 INCHES DEEP MANEUVERING SPACE SHALL BE PROVIDED IN FRONT OF THE WATER CLOSET. §11B-604.8.1.1.2, FIGURE 11B-604.8.1.1.2

23. IN A WHEEL CHAIR ACCESSIBLE COMPARTMENT WITH END-OPENING DOOR (FACING WATER CLOSET), EITHER IN-SWINGING OR OUT-SWINGING, A MINIMUM 60 INCHES WIDE AND 48 INCHES DEEP MANEUVERING SPACE SHALL BE PROVIDED IN FRONT OF THE WATER CLOSET. §11B-604.8.1.1.3, FIGURE 11B-604.8.1.1.3

24. TOILET COMPARTMENT DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH SECTION 11B-404 DOORS, DOORWAYS, AND GATES EXCEPT THAT IF THE APPROACH IS FROM THE PUSH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 48 INCHES MINIMUM MEASURED PERPENDICULAR TO THE COMPARTMENT DOOR IN ITS CLOSED POSITION. DOOR SHALL BE LOCATED IN FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. §11B-604.8.1.2

25. WHERE TOILET COMPARTMENT DOORS ARE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4 INCHES MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4 INCHES MAXIMUM FROM THE FRONT PARTITION AND THE DOOR SHALL BE SELF-CLOSING. §11B-604.8.1.2

26. A DOOR PULL COMPLYING WITH SECTION 11B-404.2.7 DOOR AND GATE HARDWARE SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. DOOR SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS MAY SWING INTO THAT PORTION OF THE MANEUVERING SPACE WHICH DOES NOT OVERLAP THE CLEARANCE REQUIRED AT A WATER CLOSET. §11B-604.8.1.2 (SEE EXCEPTION)

27. AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9 INCHES MINIMUM ABOVE THE FINISH FLOOR AND 6 INCHES DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. PARTITION COMPONENTS AT TOE CLEARANCES SHALL BE SMOOTH WITHOUT SHARP EDGES OR ABRASIVE SURFACES. COMPARTMENTS FOR CHILDREN'S USE SHALL PROVIDE A TOE CLEARANCE OF 12 INCHES MINIMUM ABOVE THE FINISH FLOOR. §11B-604.8.1.4

28. GRAB BARS SHALL COMPLY WITH SECTION 11B-609 GRAB BARS. A SIDE-WALL GRAB BAR COMPLYING WITH SECTION 11B-604.5.1 SIDE WALL SHALL BE PROVIDED AND SHALL BE LOCATED ON THE WALL CLOSEST TO THE WATER CLOSET. IN ADDITION, A REAR-WALL GRAB BAR COMPLYING WITH SECTION 11B-604.5.2 REAR WALL SHALL BE PROVIDED. WHERE SEPARATE GRAB BARS ARE REQUIRED ON ADJACENT WALLS AT A COMMON MOUNTING HEIGHT, AN L-SHAPED GRAB BAR MEETING THE DIMENSIONAL REQUIREMENTS OF SECTIONS 11B-604.5.1 SIDE WALL AND 11B-604.5.2 REAR WALL SHALL BE PERMITTED. §11B-604.8.1.5

29. URINALS SHALL BE THE STALL-TYPE OR THE WALL-HUNG TYPE WITH THE RIM 17 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13½ INCHES DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE. §11B-605.2

30. A CLEAR FLOOR SPACE OR GROUND SPACE COMPLYING WITH SECTION 11B-305 CLEAR FLOOR OR GROUND SPACE POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED. §11B-605.3

31. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH SECTION 11B-309 OPERABLE PARTS EXCEPT THAT THE FLUSH CONTROL SHALL BE MOUNTED AT A MAXIMUM HEIGHT OF 44 INCHES ABOVE THE FINISH FLOOR. §11B-605.4

32. LAVATORIES AND SINKS SHALL COMPLY WITH SECTION 11B-606 LAVATORIES AND SINKS. §11B-606.1

33. FOR LAVATORIES AND SINKS, A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 CLEAR FLOOR OR GROUND SURFACES, POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE COMPLYING WITH SECTION 11B-306 KNEE AND TOE CLEARANCE SHALL BE PROVIDED. §11B-606.2

GRAB BARS

1. GRAB BARS WITH CIRCULAR CROSS SECTION IN TOILET FACILITIES AND BATHING FACILITIES SHALL HAVE AN OUTSIDE DIAMETER OF 1¼ INCHES MINIMUM AND 2 INCHES MAXIMUM. §11B-609.2.1

2. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2 INCHES MAXIMUM AND A PERIMETER DIMENSION OF 4 INCHES MINIMUM AND 4.8 INCHES MAXIMUM. §11B-609.2.2

3. SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1½ INCHES. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1½ INCHES MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12 INCHES MINIMUM. §11B-609.3

4. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33 INCHES MINIMUM AND 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE COMPLYING WITH SECTION 11B-604.9 WATER CLOSETS AND TOILET COMPARTMENTS FOR CHILDREN'S USE, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18 INCHES MINIMUM AND 27 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. §11B-609.4

SIGNS

1. EXCEPT BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS, NEW OR ALTERED SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH 11B-216 SIGNS AND SHALL COMPLY WITH 11B-703 SIGNS. THE ADDITION OF OR REPLACEMENT OF SIGNS SHALL NOT TRIGGER ANY ADDITIONAL PATH OF TRAVEL REQUIREMENTS. §11B-216.1

2. IN PARKING FACILITIES, SIGNS PROVIDED SOLELY FOR THE OPERATION OF VEHICLES SHALL NOT BE REQUIRED TO COMPLY WITH 11B-216.2 DESIGNATIONS, 11B-216.3 DIRECTIONAL AND INFORMATIONAL SIGNS, AND 11B-216.6 THROUGH 11B-216.12.

3. TEMPORARY, 7 DAYS OR LESS, SIGNS SHALL NOT BE REQUIRED TO COMPLY WITH 11B-216 SIGNS.

4. INTERIOR AND EXTERIOR SIGNS IDENTIFYING PERMANENT ROOMS AND SPACES SHALL COMPLY WITH 11B-703.1 GENERAL, 11B-703.2 RAISED CHARACTERS, 11B-703.3 BRAILLE AND 11B-703.5 VISUAL CHARACTERS. WHERE PICTOGRAMS ARE PROVIDED AS DESIGNATIONS OF PERMANENT INTERIOR ROOMS AND SPACES, THE PICTOGRAMS SHALL COMPLY WITH 11B-703.6 PICTOGRAMS AND SHALL HAVE TEXT DESCRIPTORS COMPLYING WITH 11B-703.2 AND 11B-703.5. §11B-216.2 (SEE EXCEPTION)

5. SIGNS THAT PROVIDE DIRECTION TO OR INFORMATION ABOUT INTERIOR AND EXTERIOR SPACES AND FACILITIES OF THE SITE SHALL COMPLY WITH 11B-703.5 VISUAL CHARACTERS. §11B-216.3

6. SIGNS FOR MEANS OF EGRESS SHALL COMPLY WITH 11B-216.4 MEANS OF EGRESS:

A. SIGNS REQUIRED BY CHAPTER 10, SECTION 1011.4 AT DOORS TO DOORS AT EXIT PASSAGEWAYS, EXIT DISCHARGE, AND EXIT STAIRWAYS SHALL BE IDENTIFIED BY TACTILE SIGNS COMPLYING COMPLY WITH 11B-703.1 GENERAL, 11B-703.2 RAISED CHARACTERS, 11B-703.3 BRAILLE AND 11B-703.5 VISUAL CHARACTERS. §11B-216.4.1

B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1) CHAPTER 10, SECTION 1007.11 TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 11B-703.5 VISUAL CHARACTERS. SIGNS REQUIRED BY CHAPTER 10, SECTION 1007.9 AT DOORS TO AREAS OF REFUGE AND EXTERIOR AREAS FOR ASSISTED RESCUE SHALL COMPLY WITH 11B-703.1 GENERAL, 11B-703.2 RAISED CHARACTERS, 11B-703.3 BRAILLE AND 11B-703.5 VISUAL CHARACTERS AND INCLUDE AN INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. §11B-216.4.2

C. SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1) CHAPTER 10, SECTION 1007.10 TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 11B-703.5 VISUAL CHARACTERS. §11B-216.4.3.

D. SIGNS REQUIRED BY CHAPTER 10, SECTION 1008.1.9.7, ITEM 5.1 AT DOORS WITH DELAYED EGRESS LOCKS SHALL COMPLY WITH 11B-703.1 GENERAL, 11B-703.2 RAISED CHARACTERS, 11B-703.3 BRAILLE AND 11B-703.5 VISUAL CHARACTERS. §11B-216.4.4

7. PARKING SPACES COMPLYING WITH 11B-502 PARKING SPACES SHALL BE IDENTIFIED BY SIGNS COMPLYING WITH 11B-502.6 IDENTIFICATION. §11B-216.5

8. IN RESIDENTIAL FACILITIES, WHERE PARKING SPACES ARE ASSIGNED TO SPECIFIC RESIDENTIAL DWELLING UNITS, IDENTIFICATION OF ACCESSIBLE PARKING SPACES SHALL NOT BE REQUIRED.

9. IN EXISTING BUILDINGS AND FACILITIES WHERE NOT ALL ENTRANCES COMPLY WITH 11B-404 DOORS, DOORWAYS, AND GATES, COMPLIANT ENTRANCES SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. DIRECTIONAL SIGNS COMPLYING WITH 11B-703.5 VISUAL CHARACTERS THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 11B-404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 11B-404 DOORS, DOORWAYS, AND GATES. DIRECTIONAL SIGNS COMPLYING WITH 11B-703.5 VISUAL CHARACTERS, INCLUDING THE ISA COMPLYING WITH 11B-703.7.2.1 ISA, INDICATING THE ACCESSIBLE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE SHALL BE PROVIDED AT JUNCTIONS WHEN THE ACCESSIBLE ROUTE DIVERGES FROM THE REGULAR CIRCULATION PATH. §11B-216.6 (SEE EXCEPTIONS)

10. WHERE EXISTING ELEVATORS DO NOT COMPLY WITH 11B-407 ELEVATORS, COMPLIANT ELEVATORS SHALL BE CLEARLY IDENTIFIED WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. EXISTING BUILDINGS THAT HAVE BEEN REMODELED TO PROVIDE SPECIFIC ELEVATORS FOR PUBLIC USE THAT COMPLY WITH THESE BUILDING STANDARDS SHALL HAVE THE LOCATION OF AND THE DIRECTIONS TO THESE ELEVATORS POSTED IN THE BUILDING LOBBY ON A SIGN COMPLYING WITH 11B-703.5 VISUAL CHARACTERS, INCLUDING THE ISA COMPLYING WITH 11B-703.7.2.1 ISA. §11B-216.7

11. DOORWAYS LEADING TO TOILET ROOMS AND BATHING ROOMS COMPLYING WITH 11B-603 TOILET AND BATHING ROOMS SHALL BE IDENTIFIED BY A GEOMETRIC SYMBOL COMPLYING WITH 11B-703.7.2.6 TOILET AND BATHING ROOM GEOMETRIC SYMBOLS. WHERE EXISTING TOILET ROOMS OR BATHING ROOMS DO NOT COMPLY WITH 11B-603 TOILET AND BATHING ROOMS, DIRECTIONAL SIGNS INDICATING THE LOCATION OF THE NEAREST COMPLIANT TOILET ROOM OR BATHING ROOM WITHIN THE FACILITY SHALL BE PROVIDED. SIGNS SHALL COMPLY WITH 11B-703.5 VISUAL CHARACTERS AND SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. §11B-216.8

12. WHERE EXISTING TOILET ROOMS OR BATHING ROOMS DO NOT COMPLY WITH 11B-603 TOILET AND BATHING ROOMS, THE TOILET ROOMS OR BATHING ROOMS COMPLYING WITH 11B-603 TOILET AND BATHING ROOMS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. §11B-216.8

13. WHERE CLUSTERED SINGLE USER TOILET ROOMS OR BATHING FACILITIES ARE PERMITTED TO USE EXCEPTIONS TO 11B-213.2 TOILET AND BATHING ROOMS, TOILET ROOMS OR BATHING FACILITIES COMPLYING WITH 11B-603 TOILET AND BATHING ROOMS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA UNLESS ALL TOILET ROOMS AND BATHING FACILITIES COMPLY WITH 11B-603 TOILET AND BATHING ROOMS. §11B-216.8

14. EXISTING BUILDINGS THAT HAVE BEEN REMODELED TO PROVIDE SPECIFIC TOILET ROOMS OR BATHING ROOMS FOR PUBLIC USE THAT COMPLY WITH THESE BUILDING STANDARDS SHALL HAVE THE LOCATION OF AND THE DIRECTIONS TO THESE ROOMS POSTED IN OR NEAR THE BUILDING LOBBY OR ENTRANCE ON A SIGN COMPLYING WITH 11B-703.5 VISUAL CHARACTERS, INCLUDING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) COMPLYING WITH 11B-703.7.2.1 ISA. §11B-216.8

15. SIGNS SHALL COMPLY WITH 11B-703 SIGNS. WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED. §11B-703.1

A. SIGNS AS SPECIFIED IN SECTION 11B-703 SIGNS, OR IN OTHER SECTIONS OF THIS CODE, WHEN INCLUDED IN THE CONSTRUCTION OF NEW BUILDINGS OR FACILITIES, OR WHEN INCLUDED, ALTERED OR REPLACED DUE TO ADDITIONS, ALTERATIONS OR RENOVATIONS TO EXISTING BUILDINGS OR FACILITIES, AND WHEN A PERMIT IS REQUIRED, SHALL COMPLY WITH 11B-703.1.1.1 PLAN REVIEW AND 11B-703.1.1.2 INSPECTION. §11B-703.1.1

B. PLANS, SPECIFICATIONS OR OTHER INFORMATION INDICATING COMPLIANCE WITH THESE REGULATIONS SHALL BE SUBMITTED TO THE ENFORCING AGENCY FOR REVIEW AND APPROVAL. §11B-703.1.1.1

C. SIGNS AND IDENTIFICATION DEVICES SHALL BE FIELD INSPECTED AFTER INSTALLATION AND APPROVED BY THE ENFORCING AGENCY PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY PER CHAPTER 1, DIVISION II, SECTION 111, OR FINAL APPROVAL WHERE NO CERTIFICATE OF OCCUPANCY IS ISSUED. THE INSPECTION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFICATION THAT BRAILLE DOTS AND CELLS ARE PROPERLY SPACED AND THE SIZE, PROPORTION AND TYPE OF RAISED CHARACTERS ARE IN COMPLIANCE WITH THESE REGULATIONS. §11B-703.1.1.2

16. RAISED CHARACTERS SHALL COMPLY WITH 11B-703.2 RAISED CHARACTERS AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH 11B-703.3 BRAILLE. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.2

A. RAISED CHARACTERS SHALL BE 1/32 INCH MINIMUM ABOVE THEIR BACKGROUND. §11B-703.2.1

B. CHARACTERS SHALL BE UPPERCASE. §11B-703.2.2

C. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS. §11B-703.2.3

D. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.2.4

E. CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.2.5

F. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER. §11B-703.2.6

G. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8 INCH MINIMUM. §11B-703.2.7

H. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT. §11B-703.2.8

I. TEXT SHALL BE IN A HORIZONTAL FORMAT. §11B-703.2.9

17. BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 11B-703.3 BRAILLE AND 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.3

A. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND ACRONYMS. §11B-703.3.1

B. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH MINIMUM AND 1/2 INCH MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS. §11B-703.3.2 (SEE EXCEPTION)

18. SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.4

A. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER LINE OF RAISED CHARACTERS. §11B-703.4.1 (SEE EXCEPTION)

B. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. WHERE PERMANENT IDENTIFICATION SIGNAGE IS PROVIDED FOR ROOMS AND SPACES THEY SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE ENTERS THE ROOM OR SPACE. SIGNS THAT IDENTIFY EXITS SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE EXITS THE ROOM OR SPACE. 11B-703.4.2 (SEE EXCEPTION)

19. VISUAL CHARACTERS SHALL COMPLY WITH THE FOLLOWING, EXCEPT WHERE VISUAL CHARACTERS COMPLY WITH 11B-703.2 RAISED CHARACTERS AND ARE ACCOMPANIED BY BRAILLE COMPLYING WITH 11B-703.3 BRAILLE, THEY SHALL NOT BE REQUIRED TO COMPLY WITH 11B-703.5.2 THROUGH 11B-703.5.6, 11B-703.5.8 AND 11B-703.5.9:

A. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND. §11B-703.5.1

B. CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH. §11B-703.5.2

C. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS. §11B-703.5.3

D. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.5.4

E. MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 11B-703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I". §11B-703.5.5 (SEE EXCEPTION)

F. VISUAL CHARACTERS SHALL BE 40 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B-703.5.6 (SEE EXCEPTIONS)

G. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER. §11B-703.5.7

H. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT. §11B-703.5.8

I. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT. §11B-703.5.9

J. TEXT SHALL BE IN A HORIZONTAL FORMAT. §11B-703.5.10

20. PICTOGRAMS SHALL COMPLY WITH THE FOLLOWING:

A. PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD. §11B-703.6.1

B. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD. §11B-703.6.2

C. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH 11B-703.2 RAISED CHARACTERS, 11B-703.3 BRAILLE AND 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.6.3

21. SYMBOLS OF ACCESSIBILITY AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. SYMBOLS OF ACCESSIBILITY SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER A LIGHT SYMBOL ON A DARK BACKGROUND OR A DARK SYMBOL ON A LIGHT BACKGROUND. §11B-703.7.1

22. SYMBOLS SHALL COMPLY WITH THE FOLLOWING:

A. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL COMPLY WITH FIGURE 11B-703.7.2.1 ISA. THE SYMBOL SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE COLOR NO. 15090 IN FEDERAL STANDARD 595B. §11B-703.7.2.1 (SEE EXCEPTION)

B. THE INTERNATIONAL SYMBOL OF TTY SHALL COMPLY WITH FIGURE 11B-703.7.2.2.

C. TELEPHONES WITH A VOLUME CONTROL SHALL BE IDENTIFIED BY A PICTOGRAM OF A TELEPHONE HANDSET WITH RADIATING SOUND WAVES ON A SQUARE FIELD SUCH AS SHOWN IN FIGURE 11B-703.7.2.3.

D. ASSISTIVE LISTENING SYSTEMS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS COMPLYING WITH FIGURE 11B-703.7.2.4.

E. ROOMS, FACILITIES AND PATHS OF TRAVEL THAT ARE ACCESSIBLE TO AND USABLE BY PEOPLE WHO ARE ADVERSELY IMPACTED BY AIRBORNE CHEMICALS OR PARTICULATE(S) AND/OR THE USE OF ELECTRICAL FIXTURES AND/OR DEVICES SHALL BE IDENTIFIED BY THE CLEANER AIR SYMBOL COMPLYING WITH FIGURE 11B-703.7.2.5. THIS SYMBOL IS TO BE USED STRICTLY FOR PUBLICLY FUNDED FACILITIES OR ANY FACILITIES LEASED OR RENTED BY STATE OF CALIFORNIA, NOT CONCESSIONAIRES. THE SYMBOL, WHICH SHALL INCLUDE THE TEXT "CLEANER AIR" AS SHOWN, SHALL BE DISPLAYED EITHER AS A NEGATIVE OR POSITIVE IMAGE WITHIN A SQUARE THAT IS A MINIMUM OF 6 INCHES ON EACH SIDE. THE SYMBOL MAY BE SHOWN IN BLACK AND WHITE OR IN COLOR. WHEN COLOR IS USED, IT SHALL BE FEDERAL BLUE (COLOR NO. 15090 FEDERAL STANDARD 595B) ON WHITE, OR WHITE ON FEDERAL BLUE. THERE SHALL BE AT LEAST A 70-PERCENT COLOR CONTRAST BETWEEN THE BACKGROUND OF THE SIGN FROM THE SURFACE THAT IT IS MOUNTED ON. §11B-703.7.2.5

F. DOORWAYS LEADING TO TOILET ROOMS AND BATHING ROOMS SHALL BE IDENTIFIED BY A GEOMETRIC SYMBOL COMPLYING WITH 11B-703.7.2.6 TOILET AND BATHING FACILITIES GEOMETRIC SYMBOLS. THE SYMBOL SHALL BE MOUNTED AT 58 INCHES MINIMUM AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED FROM THE CENTERLINE OF THE SYMBOL. WHERE A DOOR IS PROVIDED THE SYMBOL SHALL BE MOUNTED WITHIN 1 INCH OF THE VERTICAL CENTERLINE OF THE DOOR. §11B-703.7.2.6 (SEE EXCEPTION)

G. MEN'S TOILET AND BATHING FACILITIES SHALL BE IDENTIFIED BY AN EQUILATERAL TRIANGLE, ¼ INCH THICK WITH EDGES 12 INCHES LONG AND A VERTEX POINTING UPWARD. THE TRIANGLE SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. §11B-703.7.2.6.1

H. WOMEN'S TOILET AND BATHING FACILITIES SHALL BE IDENTIFIED BY A CIRCLE, ¼ INCH THICK AND 12 INCHES IN DIAMETER. THE CIRCLE SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. §11B-703.7.2.6.2

I. UNISEX TOILET AND BATHING FACILITIES SHALL BE IDENTIFIED BY A CIRCLE, ¼ INCH THICK AND 12 INCHES IN DIAMETER WITH A ¼ INCH THICK TRIANGLE WITH A VERTEX POINTING UPWARD SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12-INCH DIAMETER. THE TRIANGLE SYMBOL SHALL CONTRAST WITH THE CIRCLE SYMBOL, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. THE CIRCLE SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. §11B-703.7.2.6.3

J. EDGES OF SIGNS SHALL BE ROUNDED, CHAMFERED OR EASED. CORNERS OF SIGNS SHALL HAVE A MINIMUM RADIUS OF ⅛ INCH. §11B-703.7.2.6.4

K. POLE-SUPPORTED PEDESTRIAN TRAFFIC-CONTROL BUTTONS SHALL BE IDENTIFIED WITH COLOR CODING CONSISTING OF A TEXTURED HORIZONTAL YELLOW BAND 2 INCHES IN WIDTH ENCIRCLING THE POLE, AND A 1-INCH-WIDE DARK BORDER BAND ABOVE AND BELOW THIS YELLOW BAND. COLOR CODING SHALL BE PLACED IMMEDIATELY ABOVE THE CONTROL BUTTON. CONTROL BUTTONS SHALL BE LOCATED NO HIGHER THAN 48 INCHES ABOVE THE GROUND SURFACE ADJACENT TO THE POLE. §11B-703.7.2

BUILT-IN ELEMENTS

DINING SURFACES AND WORK SURFACES

1. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5 PERCENT OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 11B-902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5 PERCENT SHALL COMPLY WITH 11B-902. §11B-226.1 (SEE EXCEPTIONS)

2. DINING SURFACES AND WORK SURFACES REQUIRED TO COMPLY WITH 11B-902 SHALL BE DISPERSED THROUGHOUT THE SPACE OR FACILITY CONTAINING DINING SURFACES AND WORK SURFACES FOR EACH TYPE OF SEATING IN A FUNCTIONAL AREA. WORK SURFACES REQUIRED TO COMPLY WITH 11B-902 SHALL BE DISPERSED THROUGHOUT THE SPACE OR FACILITY CONTAINING WORK SURFACES. §11B-226.2

3. WHERE FOOD OR DRINK IS SERVED FOR CONSUMPTION AT A COUNTER EXCEEDING 34 INCHES IN HEIGHT, A PORTION OF THE MAIN COUNTER 60 INCHES MINIMUM IN LENGTH SHALL BE PROVIDED IN COMPLIANCE WITH 11B-902.3. §11B-226.3

4. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 11B-904.3 OR 11B-904.4 SHALL COMPLY WITH 11B-403. §11B-227.5

5. COUNTERS IN FOOD SERVICE LINES SHALL COMPLY WITH 11B-904.5. §11B-904.5

A. SELF-SERVICE SHELVES AND DISPENSING DEVICES FOR TABLEWARE, DISHWARE, CONDIMENTS, FOOD AND BEVERAGES SHALL COMPLY WITH 11B-308. §11B-904.5.1

B. THE TOPS OF TRAY SLIDES SHALL BE 28 INCHES MINIMUM AND 34 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B-904.5.2

BENCHES

CHECK-OUT AISLES AND SALES AND SERVICE COUNTERS

1. SALES COUNTERS AND SERVICE COUNTERS SHALL COMPLY WITH EITHER OF THE FOLLOWING AND THE ACCESSIBLE PORTION OF THE COUNTER TOP SHALL EXTEND THE SAME DEPTH AS THE SALES OR SERVICE COUNTER TOP. §11B-904.4 (SEE EXCEPTION)

A. PORTION OF THE COUNTER SURFACE THAT IS 36 INCHES LONG MINIMUM AND 34 INCHES HIGH MAXIMUM ABOVE THE FINISH FLOOR SHALL BE PROVIDED. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 11B-305 SHALL BE POSITIONED FOR A PARALLEL APPROACH ADJACENT TO THE 36 INCH MINIMUM LENGTH OF COUNTER. §11B-904.4.1 (SEE EXCEPTION) OR

B. PORTION OF THE COUNTER SURFACE THAT IS 36 INCHES LONG MINIMUM AND 34 INCHES HIGH MAXIMUM SHALL BE PROVIDED. KNEE AND TOE SPACE COMPLYING WITH 11B-306 SHALL BE PROVIDED UNDER THE COUNTER. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 11B-305 SHALL BE POSITIONED FOR A FORWARD APPROACH TO THE COUNTER. §11B-904.4.2

1.g

Winchel

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STAMP

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BLV
MORENO VALLEY, CA 92

ISSUE DATE:

1ST	040114 – 1ST SUB TO PLANNIN
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER

ARCH PROJECT #: 14-074

DRAWN BY

AD,GC,& CL

SHEET CONTENT

ACCESSIBILITY NOTI

SHEET NO

G-11

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107

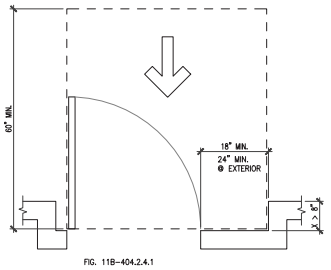


FIG. 11B-404.2.4.1

CLEAR DOOR WIDTH AND DEPTH 16

SCALE: N.T.S.

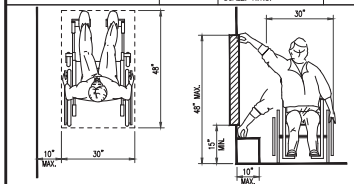


FIG. 11B-308.3.1

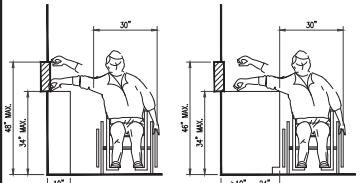


FIG. 11B-308.3.2
OBSTRUCTED SIDE REACH

SIDE REACH 18

SCALE: N.T.S.

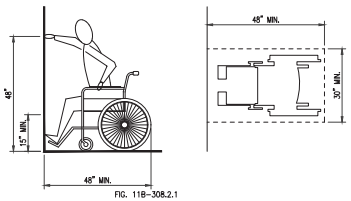
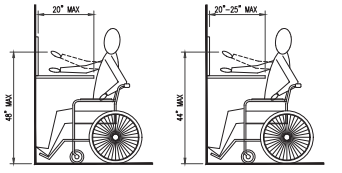


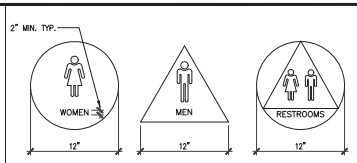
FIG. 11B-308.2.1
(a) HIGH FORWARD REACH LIMIT



(b) MAXIMUM FORWARD REACH OVER AN OBSTRUCTION
FIG. 11B-308.2.2

FORWARD REACH 20

SCALE: N.T.S.

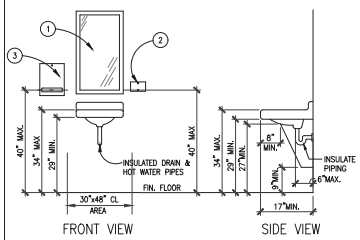


SYMBOL DESCRIPTION

ON DOORWAYS LEADING TO MEN'S SANITARY FACILITIES, AN EQUILATERAL TRIANGLE 1/4 INCH THICK WITH EDGES 12 INCHES LONG AND A VERTEX POINTING UPWARD AND AT THE WOMEN'S FACILITIES A CIRCLE 1/4 INCH THICK AND 12 INCHES IN DIAMETER, WHERE A UNISEX RESTROOM IS PROVIDED A COMBINED CIRCLE AND TRIANGLE SIGN SHALL BE USED AS SHOWN ABOVE. THESE GEOMETRIC SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 60 INCHES FROM THE FINISH FLOOR AND THEIR COLOR AND CONTRAST SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE WALL. ALSO ON THE WALL ADJACENT TO STRIKE SIDE OF DOOR, MOUNT A GRADE 2 BRAILLE SIGN WITH LETTERING/BRAILLE SYMBOLS RAISED 1/32", 5/8" – 2" HIGH AT HEIGHT OF 60 INCHES.

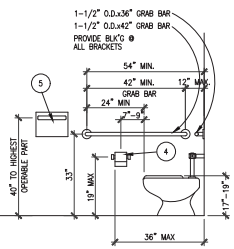
TOILET DOOR SYMBOLS 12

SCALE: N.T.S.



LEGEND

1. MIRROR.
2. SOAP DISPENSER.
3. PAPER TOWEL DISPENSER.
4. ROLL PAPER HOLDER WITHOUT STOPS.
5. TOILET SEAT COVER DISPENSER.

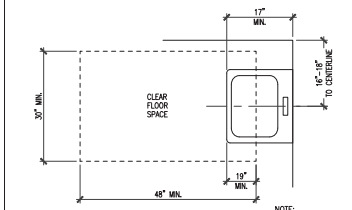


NOTE:

1. MOUNTING HEIGHTS OF RESTROOM FIXTURES AND ACCESSORIES. PROVIDE BACKING AT ALL WALL MOUNTED FIXTURES AND EQUIPMENT.
2. FLUSH VALVE SHALL BE ON WIDE SIDE OF COMPARTMENT.
3. OPERABLE PARTS OF DISPENSING & DISPOSAL FIXTURES @ 40" MAXIMUM.
4. IF A MINIMUM 9 INCHES HEIGHT OF TOE CLEARANCE IS PROVIDED, A MAXIMUM OF 6 INCHES OF THE 48 INCHES PF CLEAR FLOOR SPACE REQUIRED AT THE FIXTURE MAY EXTEND INTO THE TOE SPACE.

TYP. DIMENSIONS FOR TOILET FIXTURES 14

SCALE: N.T.S.



NOTE:
SEE DETAIL 14/- FOR ADDITIONAL INFORMATION

KNEE CLEARANCE @ LAVATORY 15

SCALE: N.T.S.

TACTILE EXIT ROUTE SIGN — EXIT ROUTE

TACTILE EXIT SIGN — EXIT

1. RAISED CHARACTERS SHALL COMPLY WITH 11B-703.2 RAISED CHARACTERS AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH 11B-703.3 BRAILLE. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.2

A. RAISED CHARACTERS SHALL BE 1/32 INCH MINIMUM ABOVE THEIR BACKGROUND. §11B-703.2.1
B. CHARACTERS SHALL BE UPPERCASE. §11B-703.2.2
C. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS. §11B-703.2.3
D. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.2.4
E. CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.2.5
F. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER. §11B-703.2.6
G. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8 INCH MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8 INCH MINIMUM. §11B-703.2.7
H. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT. §11B-703.2.8
I. TEXT SHALL BE IN A HORIZONTAL FORMAT. §11B-703.2.9

2. BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH 11B-703.3 BRAILLE AND 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.3

A. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND
NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND ACRONYMS. §11B-703.3.1
B. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH MINIMUM AND 1/2 INCH MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS. §11B-703.3.2 (SEE EXCEPTION)

3. SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH 11B-703.4 INSTALLATION HEIGHT AND LOCATION. §11B-703.4

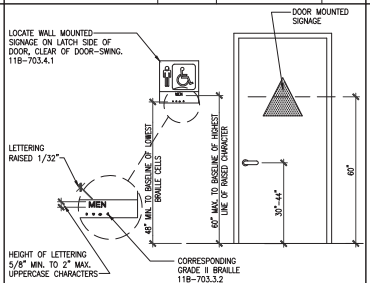
A. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER LINE OF RAISED CHARACTERS. §11B-703.4.1 (SEE EXCEPTION)
B. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. WHERE PERMANENT IDENTIFICATION SIGNAGE IS PROVIDED FOR ROOMS AND SPACES THEY SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE ENTERS THE ROOM OR SPACE. SIGNS THAT IDENTIFY EXITS SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE EXITS THE ROOM OR SPACE. 11B-703.4.2 (SEE EXCEPTION)

4. VISUAL CHARACTERS SHALL COMPLY WITH THE FOLLOWING, EXCEPT WHERE VISUAL CHARACTERS COMPLY WITH 11B-703.2 RAISED CHARACTERS AND ARE ACCOMPANIED BY BRAILLE COMPLYING WITH 11B-703.3 BRAILLE, THEY SHALL NOT BE REQUIRED TO COMPLY WITH 11B-703.5.2 THROUGH 11B-703.5.6, 11B-703.5.8 AND 11B-703.5.9:

A. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND. §11B-703.5.1
B. CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH. §11B-703.5.2
C. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS. §11B-703.5.3
D. D. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". §11B-703.5.4
E. MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 11B-703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I". §11B-703.5.5 (SEE EXCEPTION)
F. VISUAL CHARACTERS SHALL BE 40 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B-703.5.6 (SEE EXCEPTIONS)
G. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER. §11B-703.5.7
H. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT. §11B-703.5.8
I. ISPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT. §11B-703.5.9
J. TEXT SHALL BE IN A HORIZONTAL FORMAT. §11B-703.5.10

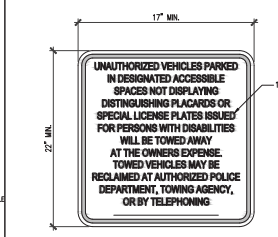
TACTILE EXIT SIGN 10

SCALE: N.T.S.



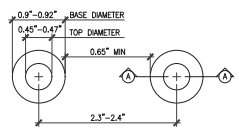
TOILET DOOR SYMBOLS 11

SCALE: N.T.S.

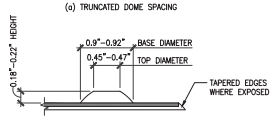


ACCESSIBLE PARKING TOW-AWAY SIGN 5

SCALE: N.T.S.



(a) TRUNCATED DOME SPACING



(a) TRUNCATED DOME SECTION A–A

TRUNCATED DOMES 6

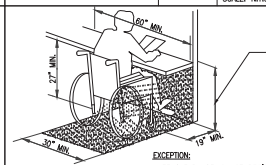
SCALE: N.T.S.

(a) SYMBOL PROPORTIONS

(b) DISPLAY CONDITIONS

INTERNATIONAL ACCESSIBILITY SYMBOL 7

SCALE: N.T.S.



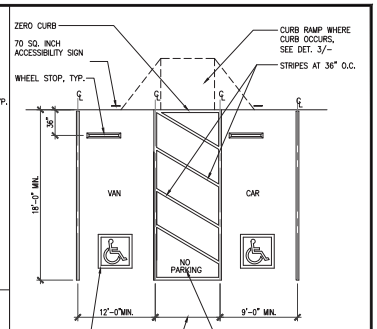
GENERAL – IF FIXED OR BUILT-IN SEATING, TABLES OR COUNTERS (INCLUDING, BUT NOT LIMITED TO, STUDY CARRELS AND STUDENT LAB. STATIONS), ARE PROVIDED IN PUBLIC, COMMON USE, OR GENERAL EMPLOYEE AREAS, AT LEAST FIVE PERCENT (5%), BUT NOT LESS THAN ONE, MUST BE ACCESSIBLE AS DETAILED ABOVE.

EXCEPTION:
KNEE CLEARANCE IS NOT REQ'D AT CHECKOUT COUNTERS OR SERVICE COUNTERS.

A. MINIMUM 30"X48" CLEAR FLOOR SPACE IS PROVIDED.
B. HEIGHT OF TABLES OR COUNTERS IS BETWEEN 28"–34" FROM THE FLOOR OR GROUND.
C. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLR. SPACE ADJOINS OR OVERLAPS AN ACCESSIBLE ROUTE OR ANOTHER WHEELCHAIR CLEAR FLOOR SPACE.
D. KNEE CLEARANCE AT TABLES, COUNTERS AND WORK SURFACES IS AT LEAST 27" HIGH, 30" WIDE AND 19" DEEP.

REQUIRED KNEE CLEARANCE 8

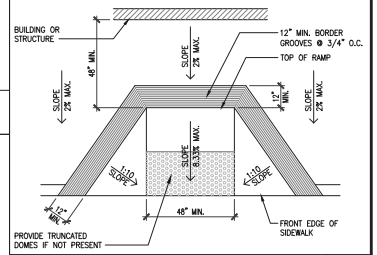
SCALE: N.T.S.



NOTE: SURFACE SLOPES OF ACCESSIBLE PARKING SPACES SHALL BE THE MINIMUM POSSIBLE AND SHALL NOT EXCEED ONE UNIT VERTICAL TO 50 UNITS HORIZONTAL (2% SLOPE) IN ANY DIRECTION

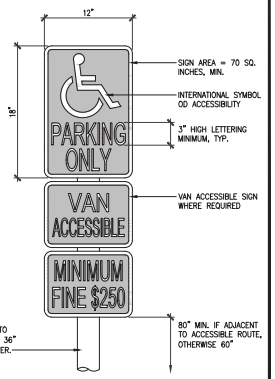
ACCESSIBLE PARKING 2

FOR REFERENCE ONLY — SCALE: N.T.S.



CURB RAMP (REFERENCE ONLY) 3

SCALE: 3/8"=1'–0"



ACCESSIBLE PARKING SIGN 4

SCALE: N.T.S.

1.g

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STAMP

PROJECT NAME/ADDRES

Winchell

21960 ALESSANDRO BL
MORENO VALLEY, CA 92

ISSUE DATE:

1ST	040114 – 1ST SUB TO PLANNI
2ND	090914 – REVISION
3RD	100314 – 2ND SUBMITTAL
4TH	100116 – 3RD SUBMITTAL
5TH	042117 – 4TH SUBMITTAL
6TH	061617 – 5TH SUBMITTAL
7TH	083017 – 6TH SUBMITTAL
8TH	092917 – 8TH SUBMITTAL

JOB NUMBER

ARCH PROJECT #: 14-074

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AD,GC,& CL

SHEET CONTENT

ACCESSIBILITY DETA

SHEET NO

G-112

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-107

A CAMERA VIEW

B CAMERA VIEW

C CAMERA VIEW

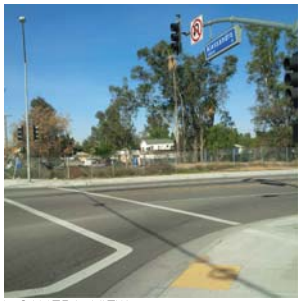
D CAMERA VIEW

E CAMERA VIEW

F CAMERA VIEW

G CAMERA VIEW

H CAMERA VIEW

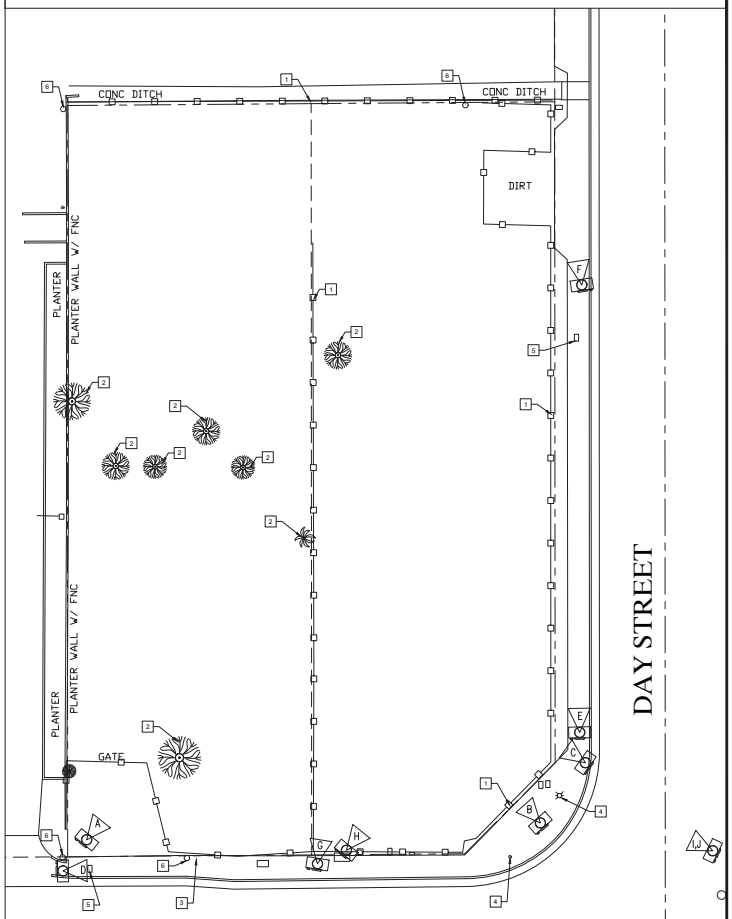


I CAMERA VIEW

J CAMERA VIEW

KEYNOTES:

1. EXISTING FENCE TO BE REMOVED.
2. EXISTING TREES TO BE REMOVED.
3. EXISTING WATER METER.
4. EXISTING TRAFFIC SIGNAL.
5. EXISTING PULL BOX.
6. EXISTING POWER POLE.



EXISTING SITE PLAN (1)
SCALE: 3/32"=1'-0"

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ALLEY, CA 92553

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2ND EVISION
3RD ND SUBMITTAL
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5TH TH SUBMITTAL
6TH TH SUBMITTAL
7TH TH SUBMITTAL
8TH TH SUBMITTAL

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NG SITE PLAN

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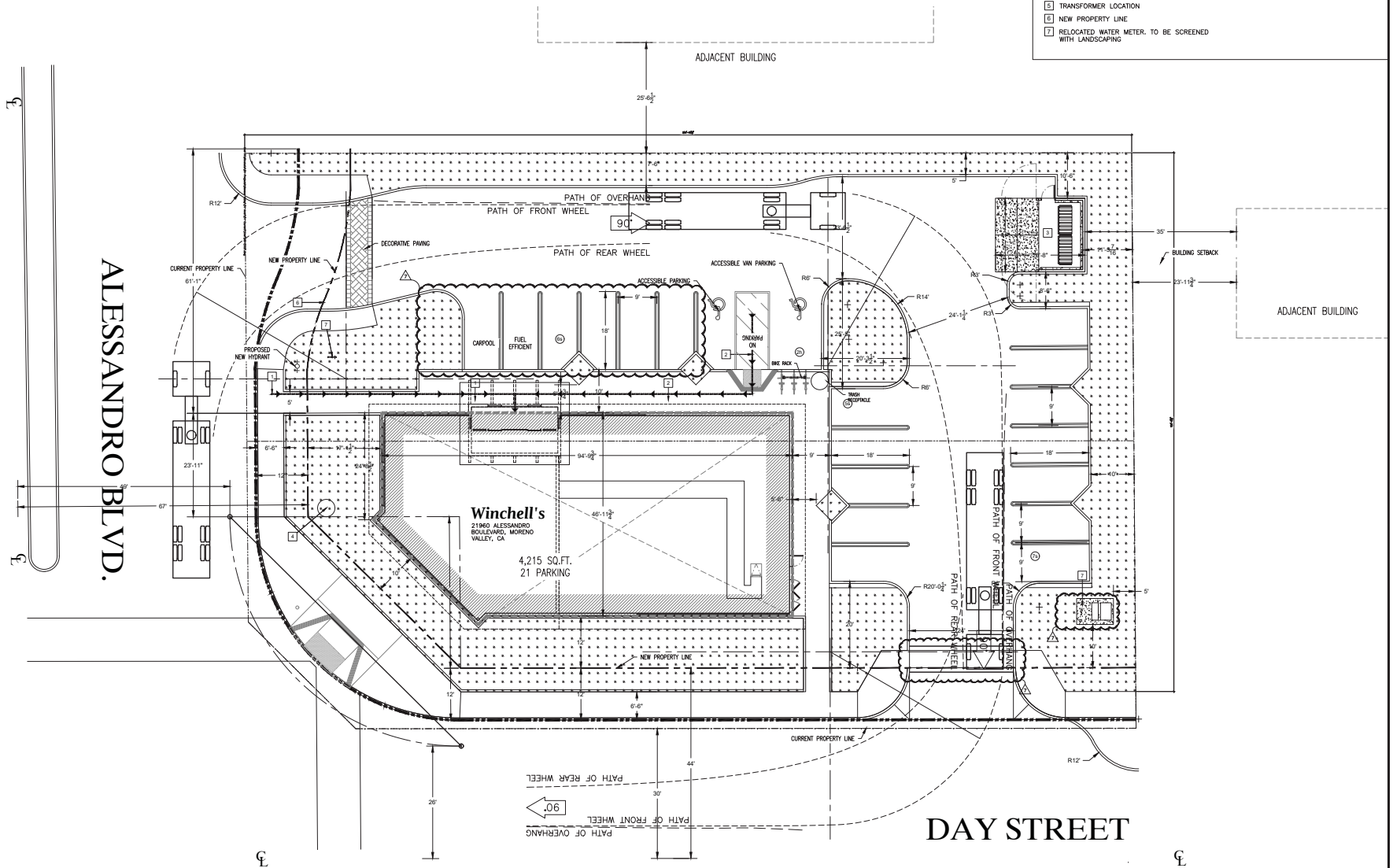
PEN 16-107

Attachment: Project Plans (2903 : PEN16-0107)

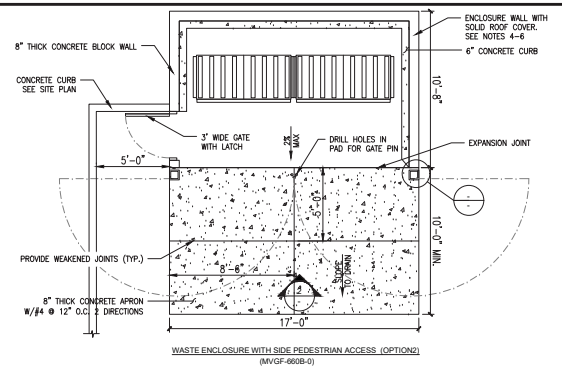
ENLARGED SITE PLAN KEYNOTES

1. ACCESSIBLE PATH OF TRAVEL FROM PUBLIC WAY.
2. ACCESSIBLE PATH OF TRAVEL FROM PARKING.
3. TRASH ENCLOSURE
4. SIGN POLE LOCATION
5. TRANSFORMER LOCATION
6. NEW PROPERTY LINE
7. RELOCATED WATER METER. TO BE SCREENED WITH LANDSCAPING



ENLARGED SITE PLAN (1)
SCALE: 3/32"=1'-0"

PEN 16-107



WASTE ENCLOSURE WITH SIDE PEDESTRIAN ACCESS (OPTION2)
(MVGF-660B-0)

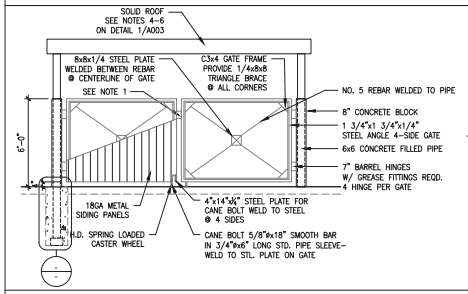
DUAL BIN COVERED WASTE ENCLOSURE NOTES:

1. LOCATION OF THE WASTE ENCLOSURE SHOULD BE APPROVED BY PARKS AND COMMUNITY SERVICES DIVISION.
2. PROVIDE A MINIMUM OF 3' ON 3 SIDES OF THE ENCLOSURE WALLS TO ACCOMODATE CLIMBING VINES AND SCREENING SHRUBS.
3. CONCRETE SHALL BE CLASS 560-C-3250.
4. ENCLOSURE WALLS SHALL HAVE FULLY COVERED SOLID ROOF, HEIGHT ARCHITECTURAL STYLE, ETC. WILL BE AT THE DISCRETION OF THE DEVELOPER, AS APPROVED BY PARKS AND COMMUNITY SERVICES DIVISION.
5. THE ENCLOSURE ROOF SHALL SLOPE TOWARD A LANDSCAPED AREA, WHERE POSSIBLE.
6. ENCLOSURE ROOF SHALL SLOPE AT 1% MINIMUM.
7. ONE BIN SHALL BE FOR REGULAR TRASH AND ONE BIN SHALL BE FOR RECYCLES.
8. THIS STANDARD DOES NOT CONSTITUTE CONSTRUCTION DRAWINGS. A SEPARATE ENGINEERED SUBMITTAL TO THE CITY'S BUILDING AND SAFETY DIVISION IS REQUIRED.

(MVGF-660C-0)

TRASH ENCLOSURE - PLAN 1

SCALE: 1/4"=1'-0"



NOTES:

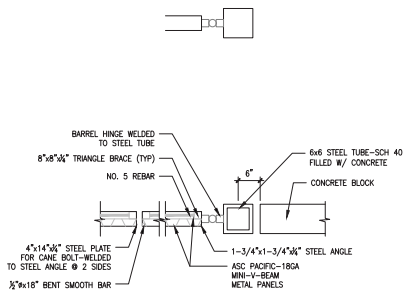
1. PROVIDE GATE LATCH, 3/8" ø PAD LOCKABLE SS TYPE 304, FLUSH MOUNT GATE LATCH (BOLT TO FRAME WITH VANDAL PROOF NUTS & BOLTS).
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING GATE ASSEMBLY.
3. PAINT ALL STEEL, COLOR TO MATCH BLDG 1 COAT EPOXY PRIMER, 2 COATS POLYURETHANE PAINT.
4. GATES SHOULD BE ABLE TO OPEN MORE THAN 90 DEGREES AND SHOULD BE EQUIPPED TO PREVENT ACCIDENTAL SWINGING, WHICH CAN RESULT IN INJURY TO PERSONS OR EQUIPMENT.
5. HARDWARE SHALL BE OF SUFFICIENT STRENGTH TO ACCOMODATE REPETITIVE SWINGING.
6. WHEN USED, LOCKS SHALL BE STANDARD, A MINIMUM 2" BRASS RESETTABLE COMBINATION LOCK (4 DIGIT DIALING ON BOTTOM OF LOCK). LOCK COMBINATIONS WILL BE SET BY ENCLOSURE USER AND THAT INFORMATION WILL BE GIVEN TO THE FRANCHISED HAULER.
7. HOT DIP GALVANIZED FRAME AND PANELS.

TRASH ENCLOSURE GATE 2

SCALE: 1/4" = 1'-0"

NOTES:

1. STEEL SLEEVE SIZE SHOULD BE DETERMINED BY EASE OF SWING ACTION, WHILE MAINTAINING A SECURE FIT.
2. PAINT EPOXY PRIMER PAINT – 2 COATS WITH DRY FILM THICKNESS OF 10 MILS.
3. PAINT ALL STEEL COLOR TO MATCH BUILDING WITH 2 COATS OF POLYURETHANE. MINIMUM DRY FILM THICKNESS OF 4 MILS.



NOTES:
ALL STEEL TO BE HOT DIPPED GALVANIZED

WASTE ENCLOSURE GATE HINGE 3

SCALE: 3/4"=1'-0"

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STAMP

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ESSANDRO BLVD.,
ALLEY, CA 92553

ISSUE DATE:
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2ND EVISION
3RD ND SUBMITTAL
4TH RD SUBMITTAL
5TH TH SUBMITTAL
6TH TH SUBMITTAL
7TH TH SUBMITTAL
8TH TH SUBMITTAL

JOB NUMBER
OJECT #: 14-074

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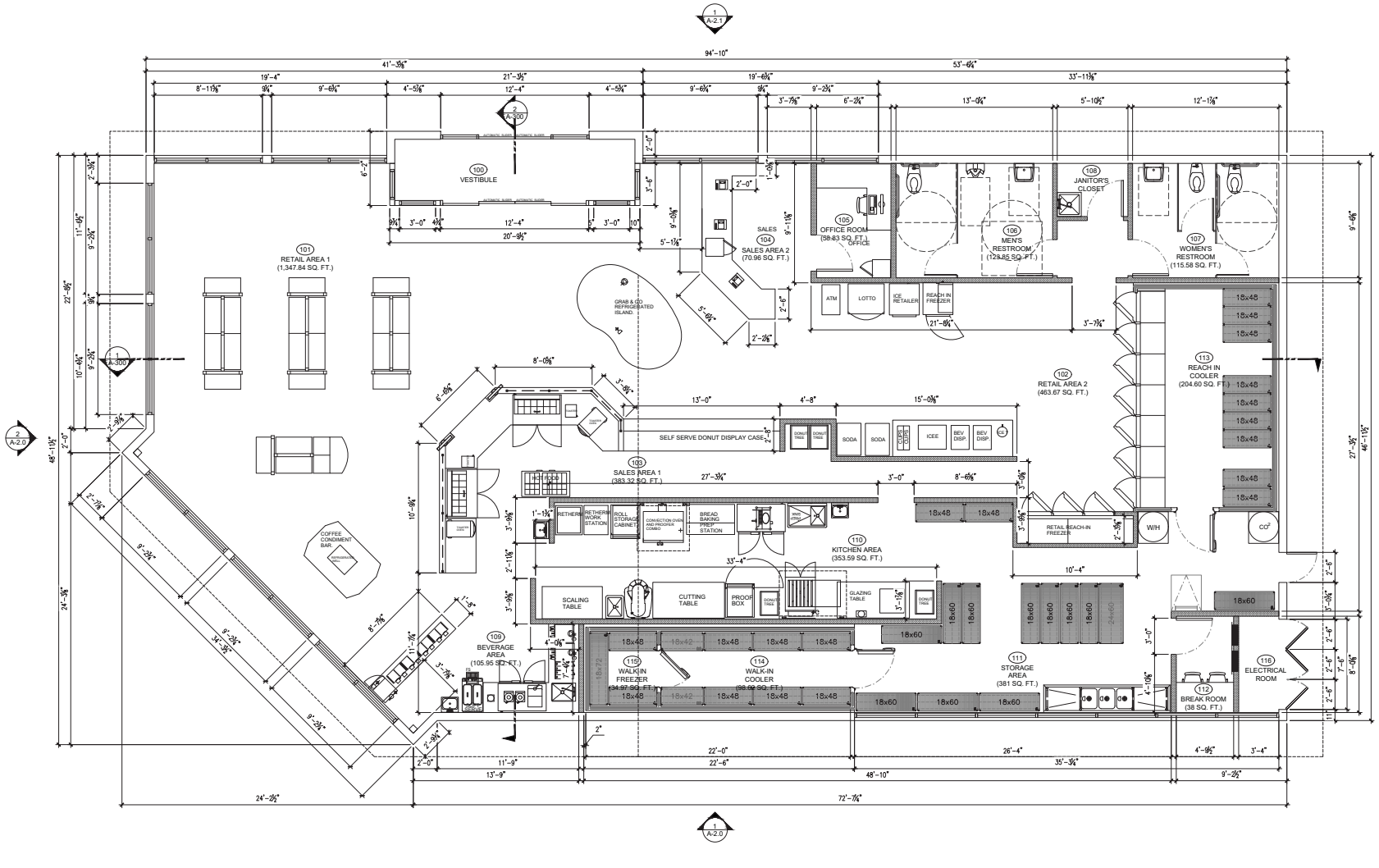
SHEET CONTENT
PLAN DETAILS

SHEET NO
-003

PEN 16-107



PROPOSED WINCHELL'S CONVENIENT STORE FLOOR PLAN (1)
SCALE: 1/4"=1'-0"

Attachment: Project Plans (2903 : PEN16-0107)

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& ASSOCIATES, INC.

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PROJECT #: 14-074

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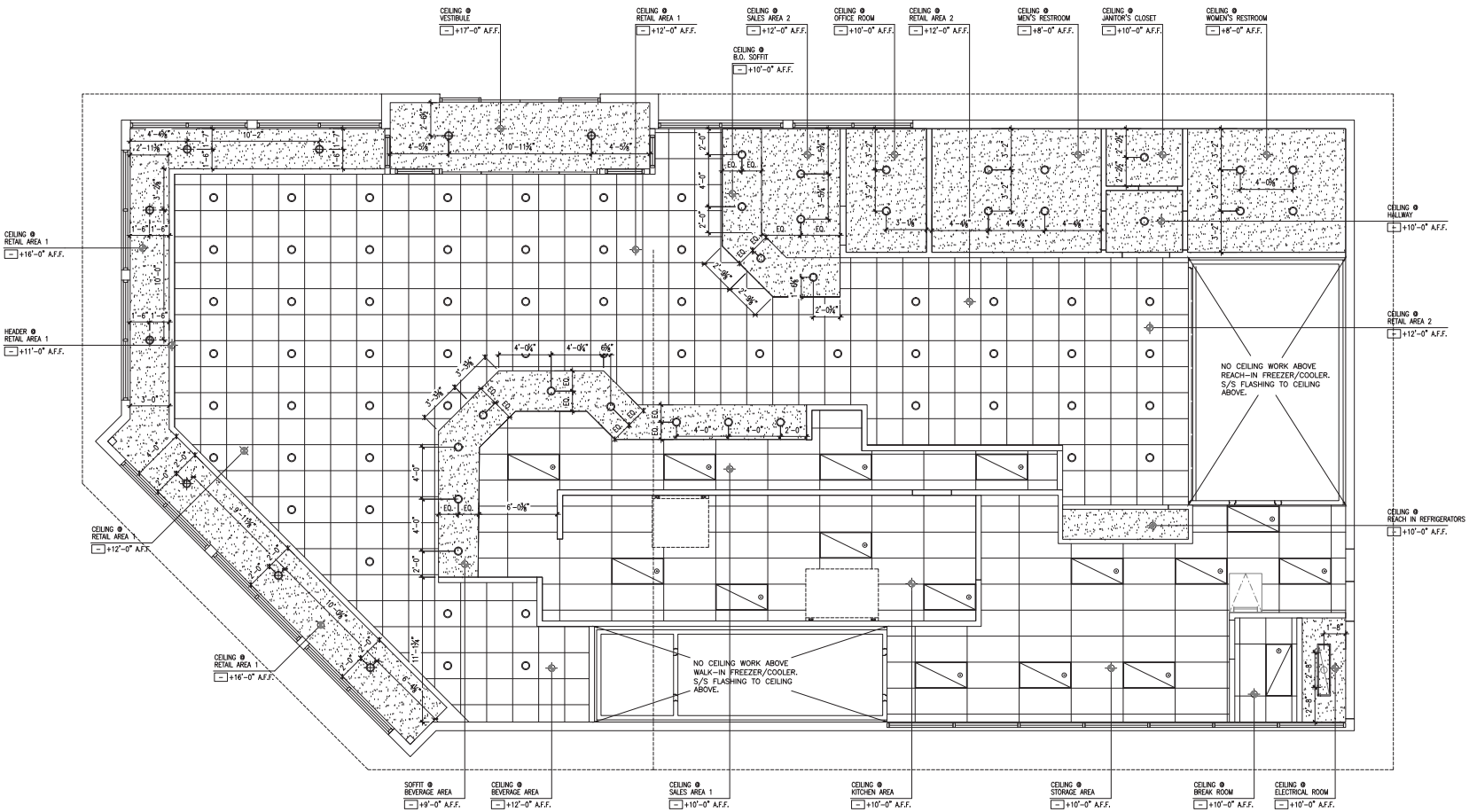
PEN 16-107



PROPOSED WINCHELL'S CONVENIENT STORE REFLECTED CEILING PLAN (1)

SCALE: 1/4"=1'-0"

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7TH TH SUBMITTAL
8TH TH SUBMITTAL

JOB NUMBER

JECT #: 14-074

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SHEET CONTENT

ED CEILING PLAN

SHEET NO

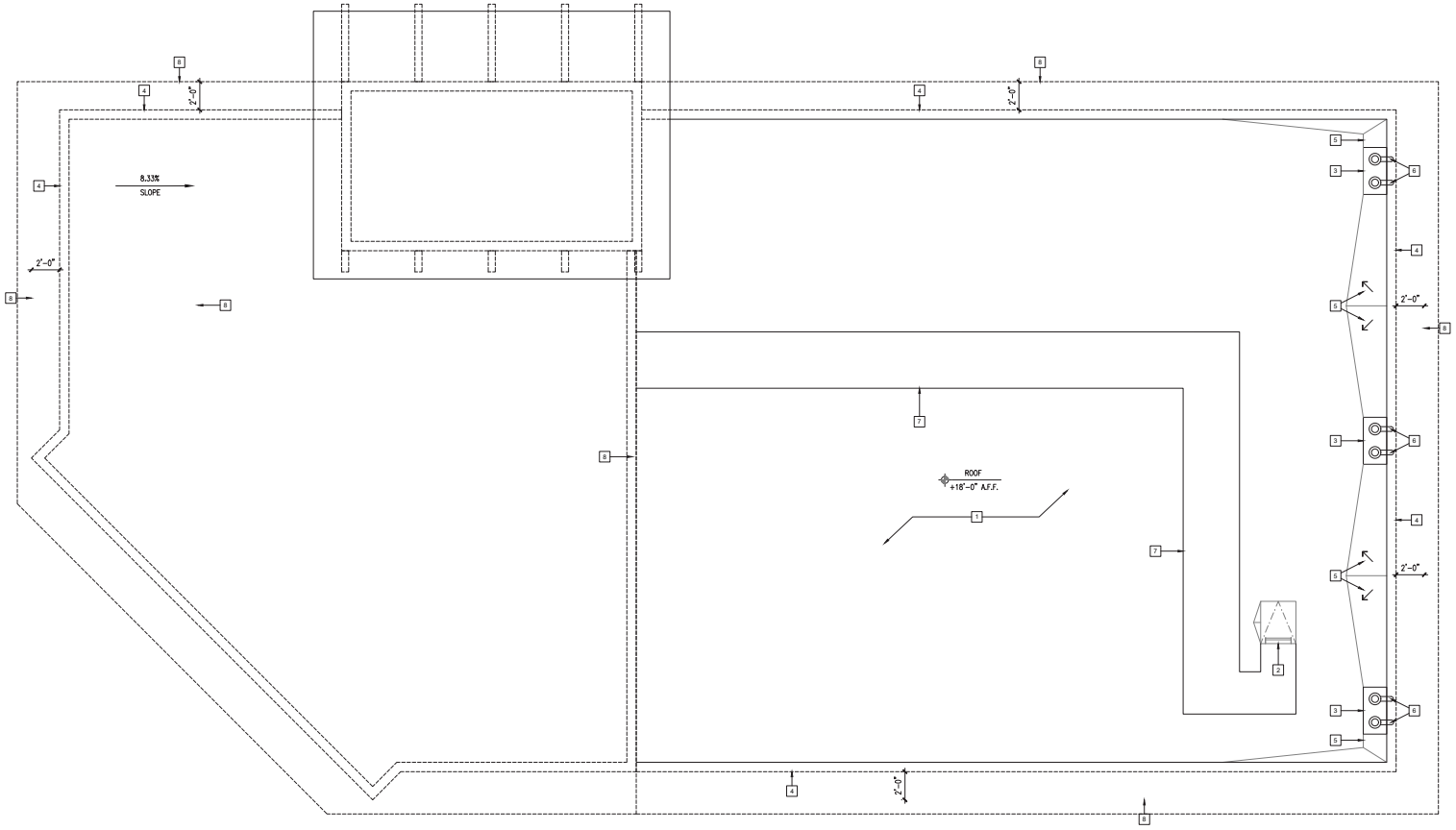
A-101

PEN 16-107

Attachment: Project Plans (2903 : PEN16-0107)

ROOF PLAN KEYNOTES

1. SINGLE-PLY ROOFING
2. ROOF ACCESS HATCH
3. ROOF DRAIN & OVER FLOW DRAIN
4. BUILDING OUTLINE
5. PROVIDE CRICKET TO ASSURE POSITIVE ROOF DRAINAGE
6. DOWN SPOUT LOCATION
7. WALK PAD
8. PARAPET



PROPOSED WINCHELL'S CONVENIENT STORE ROOF PLAN (1)
SCALE: 1/4"=1'-0"

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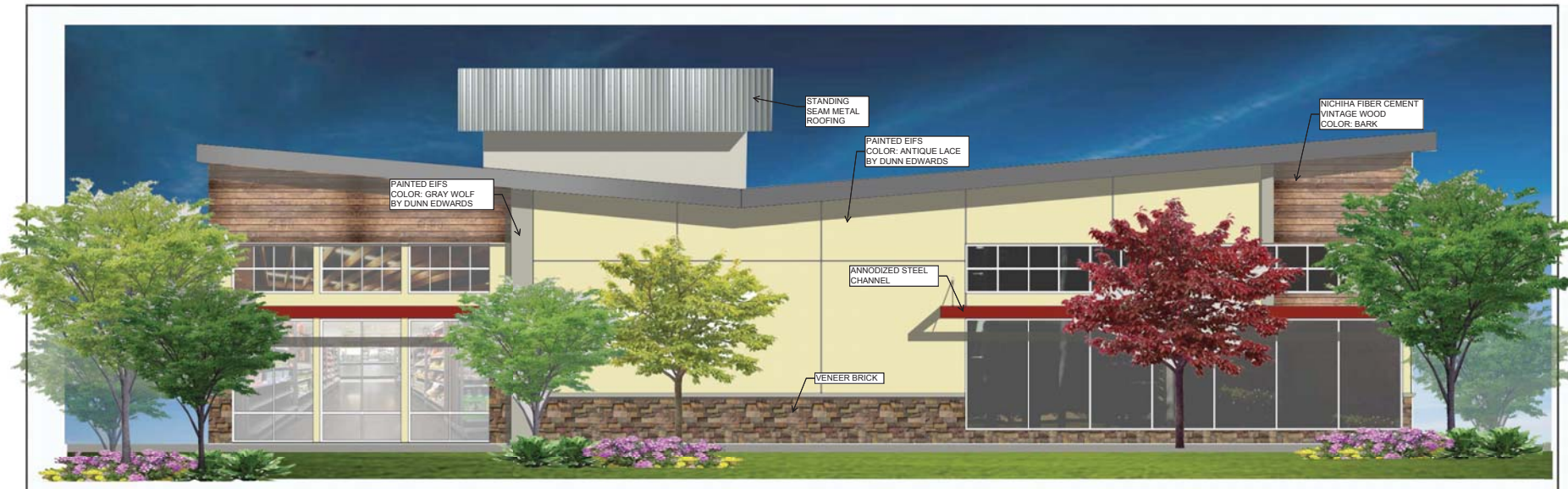
OOF PLAN

SHEET NO
A-102

PEN 16-107



PROPOSED EAST EXTERIOR ELEVATION 1

PROPOSED SOUTH EXTERIOR ELEVATION 2

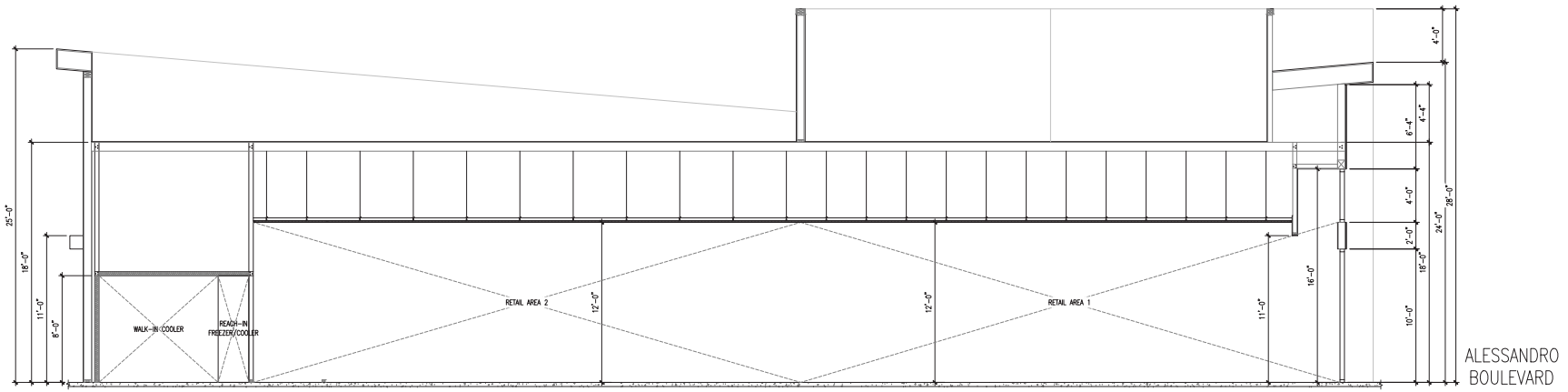
PEN 16-0107

PROPOSED WEST EXTERIOR ELEVATION 1

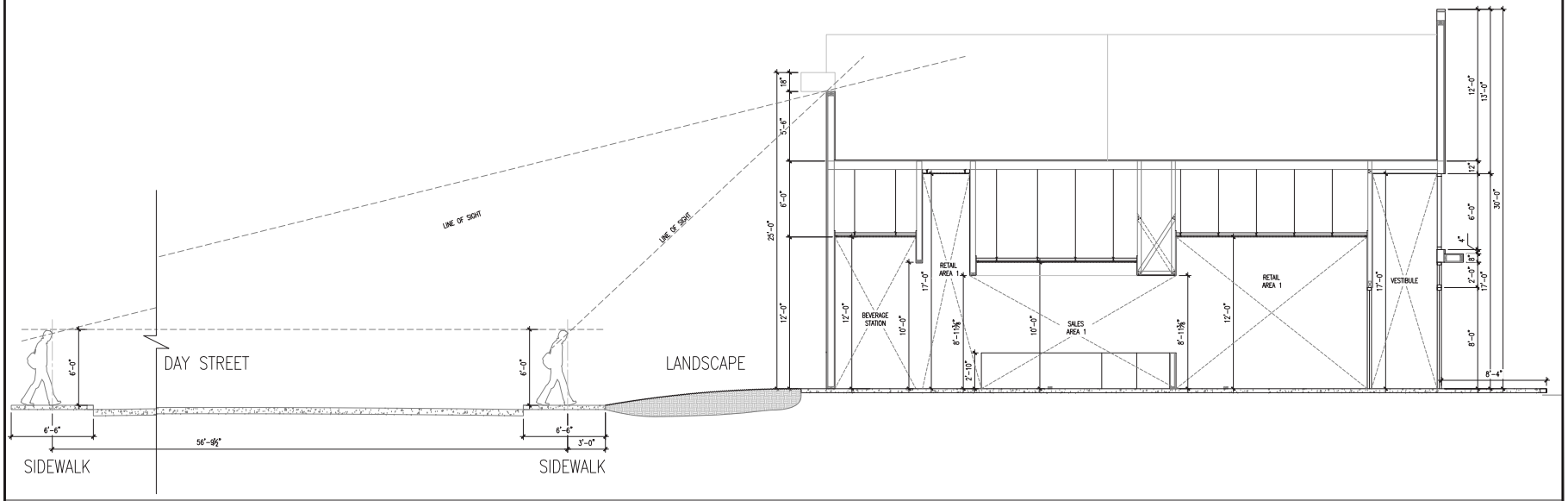
PROPOSED NORTH EXTERIOR ELEVATION 2

Attachment: Project Plans (2903 : PEN16-0107)

PEN 16-0107



BUILDING SECTION 1
SCALE: 1/4"=1'-0"



BUILDING SECTION 2
SCALE: 1/4"=1'-0"

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ALLEY, CA 92553

SUE DATE:
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JB NUMBER
JECT #: 14-074

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ET CONTENT
NG SECTIONS

SHEET NO
300

PEN 16-107

Attachment: Project Plans (2903 : PEN16-0107)

Winchell's

21960 ALESSANDRO BOULEVARD
MORENO VALLEY, CA 92553

MFG: NICHIHA VINTAGE WOOD SERIES
COLOR: BARK EPC763F
MATERIAL: FIBBER CEMENT

MFG: DUNN EDWARDS
COLOR: ANTIQUE LACE
MATERIAL: PAINT ON STUCCO

MFG: DUNN EDWARDS
COLOR: GRAY WOLF DE6354
MATERIAL: PAINT ON STUCCO

MFG: CORONADO
COLOR: DAKOTA BROWN
MATERIAL: BRICK VENEER

1.h

PREPARED BY:

GARY WANG
& ASSOCIATES, INC.
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Monterey Park, CA 91754
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(PEN16-0107)

PLANNING COMMISSION

STAFF REPORT

Meeting Date: December 21, 2017

PLOT PLAN FOR A NEW 5,430 SQUARE FOOT AUTOMATED CAR WASH FACILITY

Case:	PEN16-0113 Plot Plan
Applicant:	Alisam Moreno, LLC
Owner:	SH-60 at Heacock Street, LLC
Representative:	Bijan Shahmoradi
Location:	North side of Sunnymead Boulevard, west of Heacock Street, south of State Highway 60
Case Planner:	Gabriel Diaz
Council District:	1

SUMMARY

The applicant, Alisam Moreno, LLC, is seeking approval of a Plot Plan for the development of a 5,430 square foot fully automated car wash with vacuum stalls on a 1.68 acre site located on the north side of Sunnymead Boulevard, west of Heacock Street, and south of State 60 freeway. The project as designed is consistent with the City's General Plan and the Municipal Code and the project is being recommended for approval.

PROJECT DESCRIPTION

Project

The proposed project is a new 5,430 square foot fully automated car wash facility. The fully automated car wash includes an enclosed building for washing the vehicles and outdoor parking areas equipped with vacuum stations for drying and completing the interior detailing of the vehicles. Before entering the building, customers would pay for the service at an automated pay station. The pay station drive through is designed with

adequate room for queueing vehicles. Customers drive to the tunnel, which is approximately 130 feet in length, and remain in the car during the car wash. An automated car wash facility requires fewer on-site staff and therefor the number of parking spaces required for staff parking. Customers, upon exiting the carwash tunnel, have the option of moving their vehicle to the covered dry off and vacuum areas, which is a self-service amenity. Development regulations and processing requirements for the project site are set forth in a Specific Plan known as the Village Plan (SP204). SP204, for this proposed project site, by specific reference, relies on the Community Commercial development standards contained in Title 9 of the City Municipal Code. As a land use a car wash is considered a permitted use, and is required to be reviewed as a major development review with a properly filed Plot Plan application.

The architectural design of the car wash building strives to be appealing through the use of variation in roofline, materials, and color. The building has a contemporary style with a flat roof, faux windows on the east and west elevations, and two tower elements at the entrance and exit to the car wash. The stone veneer proposed will add an attractive base of the building. Building exterior finishes include a blend of earth tone paint colors, earth tone stone veneer, metal fascia, striped canvas awnings, and a clay tile roof over the car wash entrance and exit tower elements. The proposed project is an infill development that will enhance and add architectural character to the Sunnymead Boulevard corridor.

The Plot Plan has been evaluated against General Plan Objective 2.4, which states "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 retail and service commercial needs of Moreno Valley residents and businesses" and staff has confirmed that the proposed project does not conflict with goals, objectives, policies, or programs set forth in the General Plan.

Site

The project site is located on the north side of Sunnymead Boulevard, west of Heacock Street, and south of State Highway 60. The project topography is flat and slopes gently from north to south. There is one mature tree on the project site. There are no rock outcroppings or building structures on the site. On the northern portion of the site, there is one existing billboard and freeway sign. As shown on the site plan, and covered in the specific conditions of approval for the project, the signs must be removed with the project (i.e. prior to issuance of a grading permit). The removal of the billboard and particularly the freeway sign will be an enhancement as it is currently damaged and in disrepair. The site has also been cleared routinely for weed abatement.

The project site is comprised of one parcel (Assessor's Parcel Number 292-160-023) totaling 1.68 acres. The current zoning designation for the project site is (SP204CC) Specific Plan 204 Community Commercial. The General Plan land use designation for the project site is (C) Commercial.

Surrounding Area

Surrounding land uses include existing commercial automotive uses to the west, and retail uses including a Chevron gas station, Jack's Burgers and Jack in-the-Box fast food restaurant to the immediate east fronting on Heacock Street. The Moreno Valley Plaza and related parking lot is located to the south across Sunnymead Boulevard. The current zoning designations to the west, east, and south are Specific Plan 204 Community Commercial (SP204CC). To the north is State Highway 60.

Overall, the proposed car wash development has been found to be consistent with the objectives, goals and policies outlined in the City's General Plan, as well as being compatible with the existing and planned land uses in the project area.

Access/Parking

Primary direct access to the proposed development will be from one driveway on Sunnymead Boulevard. The proposed driveway will be right-in and right-out only, controlled by the existing raised concrete median on Sunnymead Boulevard.

The project exceeds the Municipal Code requirements for parking. A total of 12 parking spaces are required. The project as designed provides a total of 39 spaces including employee and clean air vehicle parking spaces. These parking areas include the dry-off and vacuum areas for customers. The project as designed satisfies all parking requirements of the City's Municipal Code including ADA accessible parking and parking considerations for fuel efficient vehicles.

The driveway and interior drive aisles within the site have been reviewed for adequate truck maneuvering and turnaround for delivery trucks and trash pick-up, and have been reviewed and approved by the Fire Prevention Bureau for fire truck access.

Design/Landscaping

This project, as designed and conditioned, conforms to all development standards of the Community Commercial zone and the design guidelines for a commercial use as required within the City's Municipal Code. The existing bus shelter and street improvements and furniture will not be impacted by the project.

The project has been designed to meet required landscaped standards and objectives as set forth in the City's Municipal Code. The landscape elements of the project include the landscape setback areas along Sunnymead Boulevard, parking lot landscape, street trees and landscape treatments around the perimeter of the site.

REVIEW PROCESS

The project was reviewed through a comprehensive development review process including a pre-Project Review Staff Committee meeting in April 2017. All staff comments have been addressed on the site plan or through the conditions of approval. In addition, tribal consultation was conducted and completed in accordance with the State Public Resources Code.

Upon review of revised plans, and subsequent submittals, and completion of required review, and the preparation of a Preliminary Water Quality Management Plan, the

project was scheduled for the Planning Commission public hearing on December 21, 2017.

ENVIRONMENTAL

In reviewing the project, planning staff determined that the project did not qualify for any exemptions under the California Environmental Quality Act (CEQA) Guidelines. An Initial Study was prepared by MIG, Inc., in compliance with the California Environmental Quality Act (CEQA) Guidelines. The Initial Study examined the potential of the proposed project to have significant impacts on the environment and supports the finding that a Mitigated Negative Declaration is an appropriate CEQA document for the project. The proposed project, with the implementation of mitigation measures identified, will not have a significant effect on the environment. City Planning staff completed an independent review of the environmental documents prepared by the consultants, and confers the findings presented.

Studies prepared for this project included an air quality and greenhouse gas analysis, a biological resources assessment, a phase I cultural resources technical report, preliminary drainage study, a geotechnical investigation, noise impact analysis, and a water quality management plan. The electronic files for the IS/MND and appendices are included with this report, however, due to the extent of the documentation, hard copies have not be included with the printed agenda packet. Anyone wishing to view the hard copy documents may do so at City Hall, or upon request hard copies can be made for any Commissioner.

Public notice of the availability of the Initial Study / Mitigated Negative Declaration was published in the newspaper on November 24, 2017, which satisfies the required 20 day review period in advance of the Planning Commission Public Hearing.

Mitigation measures are recommended for the project in the following areas: biological resources, cultural and historical resources, noise, and tribal resources. The measures for cultural and tribal resources have been included to address input from the tribal agencies. The measures are prophylactic and intended to ensure that should any actual tribal cultural resources be discovered during the course of grading or building of the project, that those resources be properly addressed and or protected. These measures are not required to address a known significant impact.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on November 24, 2017. Public notices were sent to all property owners of record within 300 feet of the project site on December 7, 2017. The public hearing notice for this project was posted on the project site on December 8, 2017.

As of the date of report preparation, staff has received no phone calls or correspondence in response to the noticing for this project.

REVIEW AGENCY COMMENTS

Staff has coordinated with outside agencies and where applicable, conditions of approval have been included to address concerns from the responding agencies, including addressing input from the tribal agencies.

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-44, and thereby:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Plot Plan PEN16-0113 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis; attached hereto as Exhibit A; and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Plot Plan PEN16-0113, attached hereto as Exhibit B.

B. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-45, and thereby:

1. **APPROVE** Plot Plan PEN16-0113 based on the findings contained in this resolution, and subject to the conditions of approval included as Exhibit A.

Prepared by:
Gabriel Diaz
Associate Planner

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. Aerial Photo
3. Zoning Map
4. Resolution 2017-44
5. Exhibit A Initial Study Mitigated Negative Declaration
6. Exhibit B Mitigation Monitoring and Reporting Program
7. Appendix A - Air Quality and Greenhouse Gas Assessment
8. Appendix B - Biological Resource Assessment
9. Appendix C - Phase I Cultural Resources Technical Report
10. Appendix D - Noise Modeling Files
11. Geotechnical Investigation
12. Preliminary Drainage Study

13. P-WQMP
14. Resolution 2017-45
15. Exhibit A Conditions of Approval
16. Project Site Plan
17. Preliminary Grading Plan
18. Floor Plan
19. Color Elevations
20. Material Board

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: PEN16-0113 – Plot Plan

Applicant: Alisam Moreno, LLC
Owner: SH-60 at Heacock Street, LLC
Representative: Bijan Shahmoradi
A.P. No: 292-160-023
Location: North of Sunnymead Boulevard, west of Heacock Street, south of the 60 freeway.
Proposal: A proposal to construct a 5,430 square foot fully automated car wash with vacuum stalls on a 1.68 acre parcel. The current zoning is SP204CC.
Council District: 1

The City of Moreno Valley has reviewed the above project in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15070 and has determined that 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 have been required of the project that will reduce potential impacts to a less than significant level. Therefore, a Mitigated Negative Declaration is recommended for the project.

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: December 21, 2017, 7:00 p.m.
CONTACT PLANNER: Gabriel Diaz
PHONE: (951) 413-3226

Upon request and in compliance with the Americans with Disabilities Ac of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct suc 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 t make reasonable arrangements to ensure accessibility to this meeting.

Attachment: Public Hearing Notice (2913 : PEN16-0113 Plot Plan)

MORENO VALLEY
WHERE DREAMS SOAR

Aerial Photo

Legend

- Public Facilities
  - Public Facilities; Employment Res; Permanente Moreno Valley Medi; Conference & Recreation Center
  - Fire Stations
- Parcels
- City Boundary
- Sphere of Influence

Notes

315.5 0 157.74 315.5 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

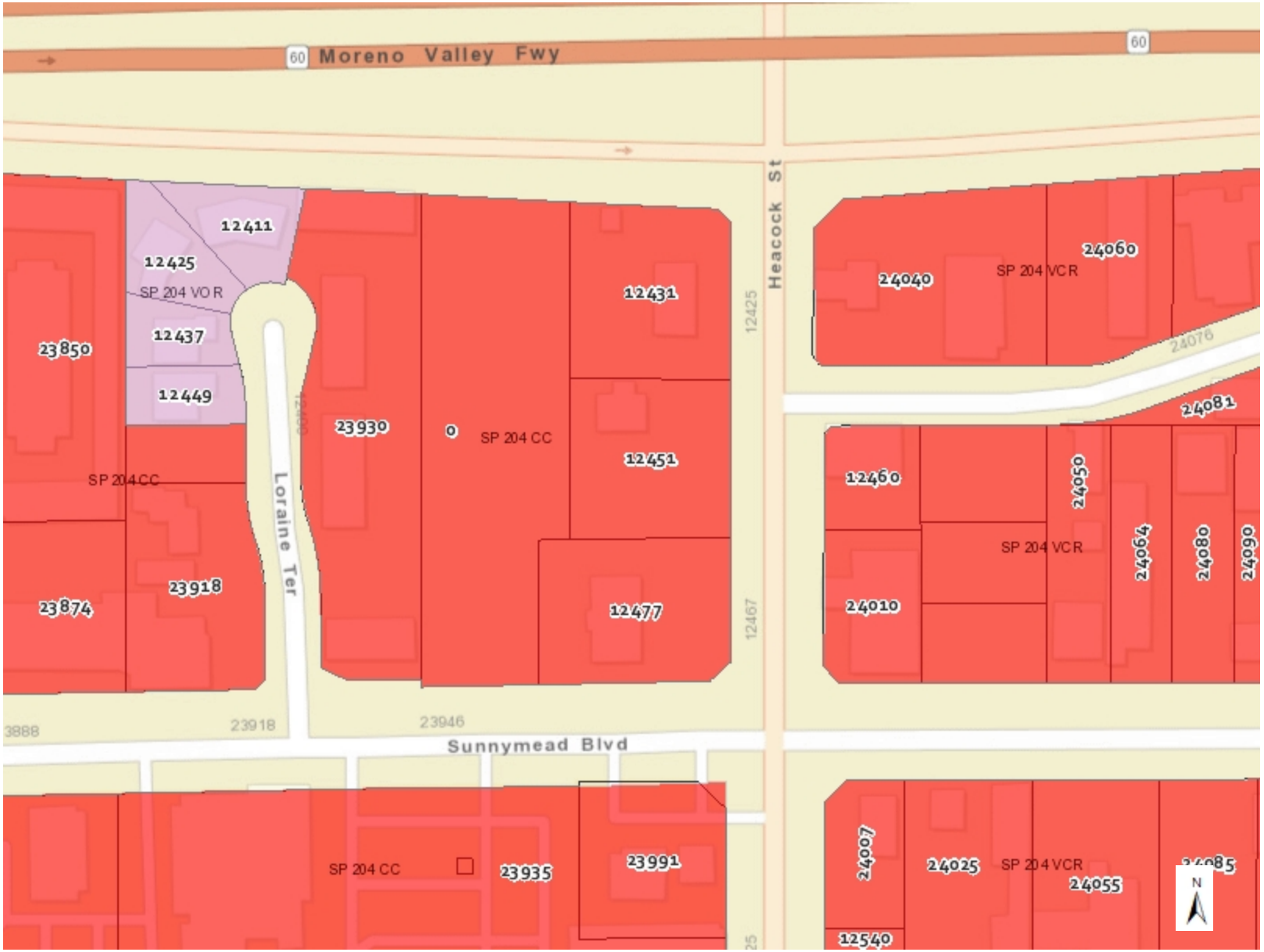
Print Date: 12/13/2017

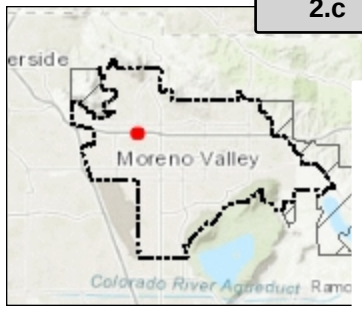
DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and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

Attachment: Aerial Photo (2913 : PEN16-0113 Plot Plan)

MORENO VALLEY
WHERE DREAMS SOAR

Zoning Map





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

315.5 0 157.74 315.5 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 12/13/2017

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.

Attachment: Zoning Map (2913 : PEN16-0113 Plot Plan)

PLANNING COMMISSION RESOLUTION NO. 2017- 44

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, CERTIFYING THE MITIGATED NEGATIVE DECLARATION AND APPROVING THE MITIGATION MONITORING AND REPORTING PROGRAM FOR A CAR WASH FACILITY PEN16-0113

WHEREAS, the applicant, Alisam Moreno, LLC, filed applications for the for development of a 5,430 square foot fully automated car wash with vacuum stalls project ("Project"), which includes an Expanded Environmental Review. The Plot Plan application shall not be approved unless the Final Mitigated Negative Declaration is certified and approved; and

WHEREAS, the application for the Project 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 Initial Study, supporting technical studies, and Mitigated Negative Declaration for the Project were prepared, consistent with the California Environmental Quality Act (CEQA); and

WHEREAS, a 20-day public review period of the Initial Study and Mitigated Negative Declaration commenced on November 24, 2017 and concluded on December 14, 2017. The public hearing notice for the project was published in the local newspaper on November 24, 2017. The public hearing notice for the project was mailed to all property owners of record within 300 feet of the project site on December 7, 2017. The public hearing notice for the project was posted on the project site on December 8, 2017; and

WHEREAS, the City, in conducting its own independent analysis of the Final Mitigated Negative Declaration, determined that a Mitigated Negative Declaration is an appropriate environmental determination for the Project as there is substantial evidence that demonstrates the Project would not result in any significant environmental impacts; and

WHEREAS, a Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with CEQA Guidelines, and is designed to ensure compliance with the identified mitigation measures outlined in the Final Mitigated Negative Declaration through project implementation; and

WHEREAS, The City of Moreno Valley, Community Development Department, located at 14177 Frederick Street, Moreno Valley, California 92552 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based; and

WHEREAS, the Planning Commission of the City of Moreno Valley considered the Project, including all environmental documentation, at a public hearing held on December 21, 2017; 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), and based on the Initial Study including all supporting technical evidence, it was determined that the project impacts are expected to be less than significant with mitigation, and approval of a Mitigated Negative Declaration is an appropriate environmental determination for the Project.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

A. This Planning Commission 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 December 21, 2017, including written and oral staff reports, and the record from the public hearing, this Planning Commission finds as follows:

1. Independent Judgment and Analysis – MIG, Inc. prepared the Mitigated Negative Declaration/Initial Study and related technical studies for the car wash facility, and reviewed by City Staff. The documents were properly circulated for public review in accordance with the California Environmental Quality Act Guidelines. The Mitigated Negative Declaration/Initial Study has been completed along with the Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with all mitigation through project implementation. All environmental documents that comprise the Mitigated Negative Declaration, including all technical studies were independently reviewed by the City. On the basis of the whole record, there is no substantial evidence that the Project as designed, conditioned, and mitigated, will have a significant effect on the environment. The Mitigated Negative Declaration prepared and completed, in accordance with the CEQA Guidelines, reflects the independent judgment and analysis of the City.

THEREFORE THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY APPROVE Resolution No. 2017- 44, and:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Plot Plan PEN16-0113 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis; attached hereto as Exhibit A and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Plot Plan PEN16-0113, attached hereto as Exhibit B.

APPROVED AND ADOPTED this 21st day of December, 2017.

AYES:
NOES:
ABSTAIN:

_____
Jeffrey Barnes
Chair, Planning Commission

ATTEST:

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

APPROVED AS TO FORM:

_____
City Attorney

Exhibit A and Exhibit B

Sunnymead Car Wash
Initial Study
Mitigated Negative Declaration

Lead Agency:

City of Moreno Valley
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552

Prepared for:

Alisam Moreno Valley, LLC
c/o Tri-Millennium Properties/P&N Construction
8730 Wilshire Boulevard, Suite 202
Beverly Hills, California 90211

Prepared by:

MIG, Inc.
1500 Iowa Avenue, Suite 110
Riverside, California 92507

November 2017

- This document is designed for double-sided printing -

Table of Contents

List of Tables

List of Exhibits

1 Introduction

The City of Moreno Valley (Lead Agency) received an application from Alisam Moreno Valley, LLC (Project Proponent) for the development of an automated car wash on a 1.68-acre site in the City of Moreno Valley, California. The approval of the application constitutes a *project* that is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code §§ 21000, *et seq*.), and the CEQA Guidelines (14 California Code of Regulations §§ 15000, *et. seq*.).

This Initial Study was prepared to assess the short-term, long-term, and cumulative environmental impacts that could result from the proposed project.

This report was prepared to comply with CEQA Guidelines § 15063, which sets forth the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (See Section 2);
- Identification of the environmental setting (See Section 2.11);
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (See Section 4);
- Discussion of ways to mitigate significant effects identified, if any (See Section 4);
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (See Section 4.10); and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (See Section 5).

1.1 – Purpose of CEQA

CEQA § 21000 of the California Public Resources Code provides as follows:

The Legislature finds and declares as follows:

a) The maintenance of a quality environment for the people of this state now and in the future, is a matter of statewide concern.
b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the state to:

h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.

i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
j) 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 and examples of the major periods of California history.
k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in CEQA § 21002, quoted below:

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 – Public Comments

Comments from all agencies and individuals are invited regarding the information contained in this Initial Study. Such comments should explain any perceived deficiencies in the assessment of impacts, identify the information that is purportedly lacking in the Initial Study or indicate where the information may be found. All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact

Gabriel Diaz, Associate Planner
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552
951-413-3206

Following a 20-day period of circulation and review of the Initial Study, all comments will be considered by the City of Moreno Valley prior to adoption. All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact the Planning Division.

2 Project Description

2.1 – Project Title

Sunnymead Car Wash

2.2 – Lead Agency Name and Address

City of Moreno Valley
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552
951-413-3206

2.3 – Contact Person and Phone Number

Gabriel Diaz, Associate Planner
951-413-3226

2.4 – Project Location

The project site is located in the City of Moreno Valley, Riverside County, California (See Exhibit 1, Regional Context and Vicinity Map). The project site is bounded by commercial uses to the west, south, and east and State Route 60 (SR-60) to the north.

- Latitude 33° 56' 23.85" North, Longitude 117° 14' 41.44" West
- APN 292-160-023
- Sunnymead Boulevard east of Loraine Terrace and west of Heacock Street

2.5 – Project Sponsor's Name and Address

Alisam Moreno Valley, LLC
c/o Tri-Millennium Properties/P&N Construction
8730 Wilshire Boulevard, Suite 202
Beverly Hills, California 90211

2.6 – General Plan Land Use Designation

The project site is designated Commercial by the City of Moreno Valley General Plan Land Use Element.

2.7 – Zoning District

The City of Moreno Valley Zoning Ordinance designates the project site as Community Commercial.

2.8 – Project Description

The proposed project is located on approximately 1.68 acres. The project site is currently vacant consisting of disturbed land and limited paving. The project includes the construction of an automated car wash with vacuum canopy and associated

parking (see Exhibit 2, Site Plan). The 5,424-square foot car wash structure would include an enclosed car wash tunnel, enclosed area for mechanical equipment, one men's restroom, one women's restroom, office space, cashier space, and storage space. Two rows of vacuum canopies would be provided so that users of the car wash can then vacuum their vehicles on site. A total of 39 parking stalls would be provided, including two clean air vehicle stalls and two Americans with Disabilities Act accessible parking stalls.

Access to the site would be provided via a 36-foot wide driveway, with one 20-foot wide inbound lane and one 16-foot wide outbound lane on Sunnymead Boulevard. Upon entering the site, two lanes are provided for cars to line up at four automated cashier pay stations with barrier gate arms to pay for their wash and wait their turn. The automated barrier gate arms would allow one vehicle through the car wash tunnel at a time. Upon exiting the car wash tunnel, cars will be directed to the parking spaces and vacuum stations via a one-way interior lane. To exit the site, cars would continue on the one-way lane and loop back out to the driveway on Sunnymead Boulevard. The height of the tunnel entry and exit openings is 10 feet. Two 10-foot high sound walls will be constructed to comply with the City's noise ordinance. One will extend northward 30 feet from the northwest corner of the building and the second wall will extend southward 30 feet from the southwest corner of the building.

Architecturally, the proposed car wash structure would be comprised of a terra cotta tile roof, stucco exterior walls with stone accents, and green exposed beams. Various shades of brown and tan as well as stone accents are utilized to provide contrast and visual interest. One window on the eastern side of the building would be provided for the office space. (see Exhibit 3, Elevations).

Landscaping

The project would consist of approximately 15,000 square feet of landscaped area to include shrubs and trees along the boundaries of the site and along drive aisles. These landscaped areas would also serve as bio swales for runoff collection and treatment.

Project Phasing and Construction Scheduling

Based on default construction phasing information provided by the California Emissions Estimator Model (CalEEMod), construction of the project would take approximately ten months to complete. Approximately 500 cubic yards of soil is anticipated to be removed to make room for underground water storage tanks and the footings of the car wash.

Grading and Drainage

The project site is vacant. Stormwater would be collected on site and conveyed to the various on-site bio swales for treatment. Then, stormwater would be pumped south to the City's stormwater drainage system at Sunnymead Boulevard.

Utilities

The proposed project will connect to existing water, sanitary sewer, electricity, and gas facilities. Water and sewer service is provided by the Eastern Municipal Water District. Electricity would be provided by Southern California Edison and natural gas will be provided by the Southern California Gas Company. Utility undergrounding would be required.

2.9 – Surrounding Land Uses

The project site is bounded by commercial uses to the west, south, and east and State Route 60 (SR-60) to the north. Surrounding uses are summarized in Table 1 (Surrounding Land Uses).

Table 1
Surrounding Land Uses

Direction	General Plan Designation	Zoning District	Existing Land Use
Project Site	Commercial	Community Commercial	Vacant
North	Highway	Highway	SR-60
South	Commercial	Community Commercial	Commercial - Retail
East	Commercial	Community Commercial	Fast Food Restaurants Service Station (Chevron)
West	Commercial	Community Commercial	Commercial – Auto Care

2.10 – Environmental Setting

The project is located on a vacant site in a developed area in the City of Moreno Valley, Riverside County, California. The project site is surrounded by commercial and residential uses and the area is built-out and urbanized. Disturbed non-native vegetation and limited pavement is located on the site. The site is bound to the west, south, and east by commercial development and to the north by State Route 60 (SR-60). Interstate 215 is located approximately 2.6 miles to the west of the project site. The project site is relatively flat with an elevation ranging between approximately 1,640 to 1,647 feet above mean sea level (AMSL).

- The site does not contain scenic resources.
- The site is not currently being used for agricultural purposes.
- On-site vegetation consists of disturbed non-native vegetation and pavement and does not provide suitable habitat for any sensitive, or special status species.
- There are no on-site water features indicative of potential riparian habitat or wetlands.
- The site does not contain any historic structures.

2.11 – Required Approvals

The City of Moreno Valley is the only land use authority for this project requiring the following approvals:

- Plot Plan

2.12 – Other Public Agency Whose Approval is Required

None

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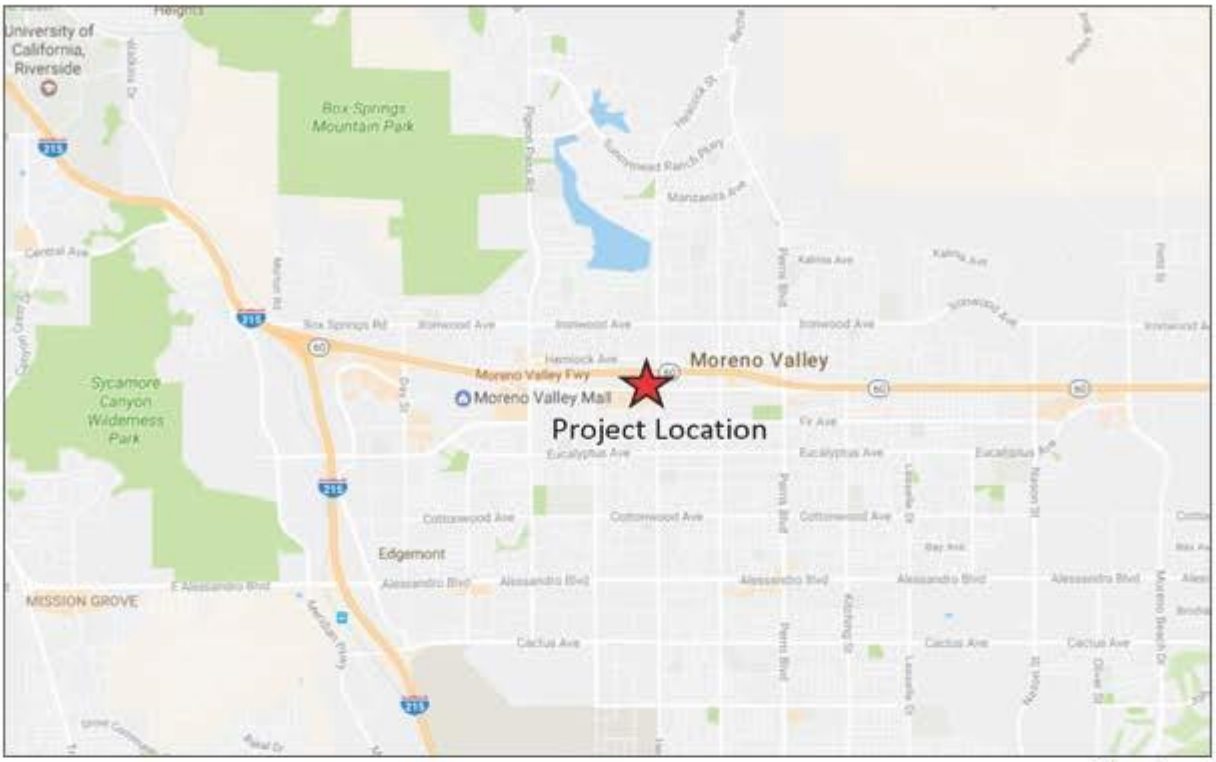
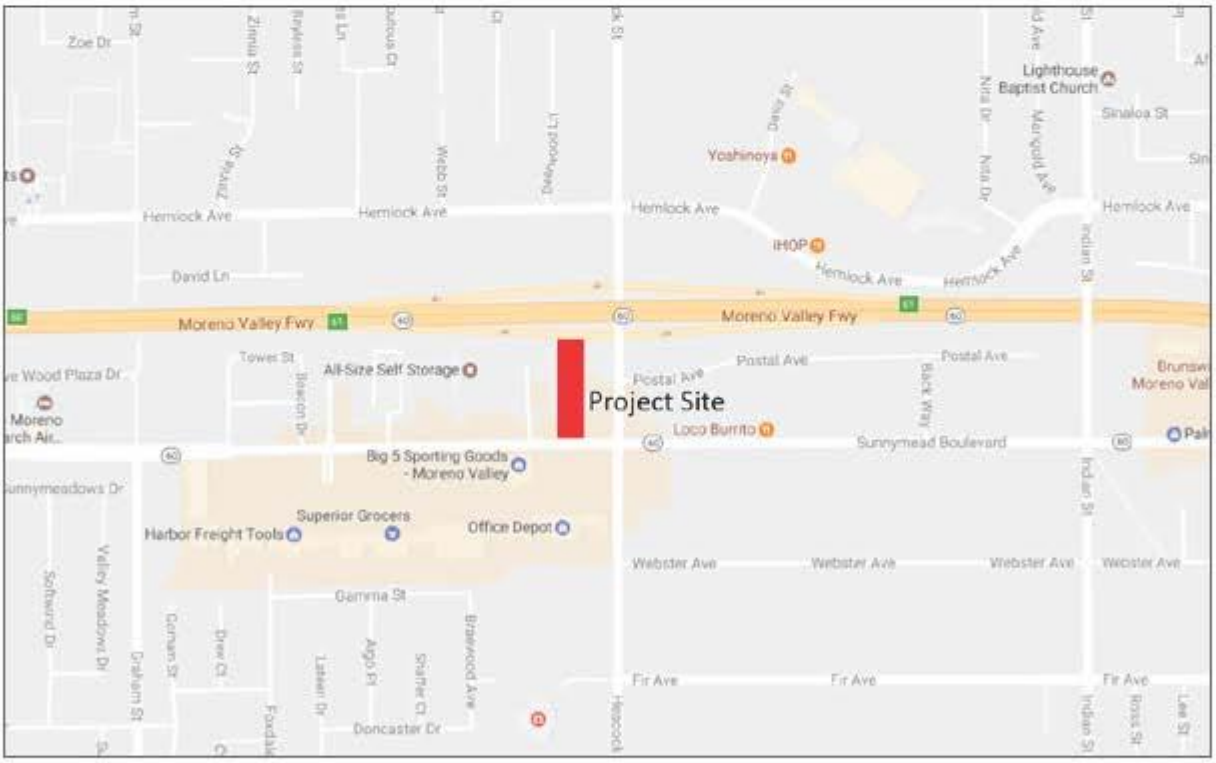


Regional



Vicinity

Not to Scale

Exhibit 1 Regional Context and Vicinity Map

Sunnymead Car Wash
City of Mo

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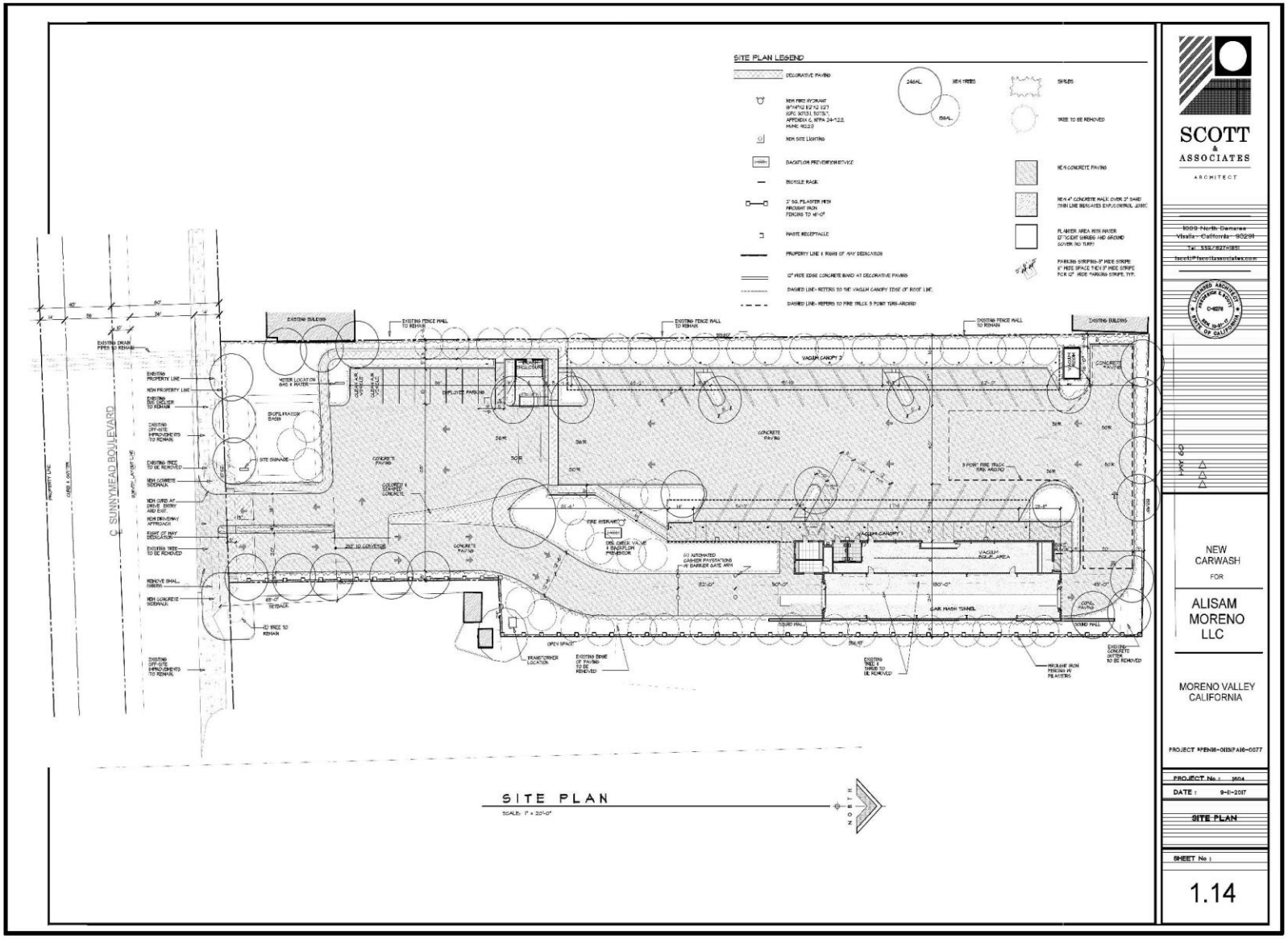

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3 Determination

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

3.2 – Determination

☐	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 'potentially 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 adequately 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.

Name: Gabriel Diaz, Associate Planner

Date

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4.1 – Aesthetics

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway?	☐	☐	☐	☑
c) 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?	☐	☐	☑	☐

a) **No Impact.** Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). According to the City of Moreno Valley General Plan Update EIR, the primary scenic resources within the City include the Box Springs Mountains and the Badlands to the north and the Mount Russell foothills to the south.[1] The proposed project is located on a vacant site located immediately south of the Pomona Freeway (SR-60), within a fully urbanized area visually dominated by commercial uses, auto care uses, and surface streets. This site is not considered to be within or to comprise a portion of a scenic vista.[2] As discussed in the General Plan Update EIR, compliance with Municipal Code guidelines and regulations on height would ensure that views of scenic resources would be preserved.[3] The project is located within a commercial area that is comprised of one- to two-story buildings and is immediately south of SR-60. Views of the surrounding hillsides from the project site are obstructed by existing development and landscaping and are limited. Views of the hillsides to the south are limited, but visible from SR-60, which the General Plan designates as a local scenic roadway. SR-60 is an elevated highway, and views to the south would not be obstructed by the proposed project. The proposed car wash building would be developed at a maximum height of 29 feet and one inch at its highest point. Because the proposed development would not result in structures greater in height than currently exists in the vicinity, development of the proposed project and accessory landscaping elements would have no effect on a scenic vista. As such, the proposed project would result in no impact with respect to view of a scenic vista.

b) **No Impact.** The project is not adjacent to a designated state scenic highway or eligible state scenic highway as identified on the California Scenic Highway Mapping System.[4] According to the General Plan EIR, SR-60 is designated as a local scenic road.[5] The project site is located in an urbanized area, and contains no trees, rock outcroppings, or historically significant buildings (see Section 4.5 Cultural Resources) that would constitute a scenic resource. Therefore, no impact to scenic resources visible from a state scenic highway local scenic road would occur.

c) **Less than Significant Impact.** Development of the proposed project could result in a significant impact if it resulted in substantial degradation of the existing visual character or quality of the site and its surroundings. Degradation of visual character or quality is defined by substantial changes to the existing site appearance through construction of structures such that they are poorly designed or conflict with the site's existing surroundings.

Construction of the proposed project would result in short-term impacts to the existing visual character and quality of the area. Construction activities would require the use of equipment and storage of materials within the project site. However, construction activities are temporary and would not result in any permanent visual impact.

The project site is currently vacant and disturbed. Project construction would result in the removal of any non-native vegetation, which would result in a temporary change to the aesthetic environment. Construction of the proposed car wash would alter the existing visual character of the site. The proposed project is similar in use as the auto car facilities to the west and the service station to the east. Surrounding uses are generally one story in height. The surrounding area is not visually distinct and does not portray a particular architectural theme or aesthetic.

Upon project completion, the proposed project would consist of one car wash facility that includes a car wash tunnel, office, restrooms, vacuum area, and parking. Access to the site will be provided via Sunnymead Boulevard. The building heights will vary from 10 feet for the covered vacuum area, and 29 feet and on inch at its highest point from ground level. Section 9.04.030 of the Moreno Valley Municipal Code does not specify a height restriction for commercial uses. The building would have a Tuscan design, with primarily stone and tile finishes (see Exhibit 3, Elevations). With an architectural theme to include terra cotta tile, Tuscan mosaic, and exposed framing, the project would improve the visual character and quality of this site and reflect an improvement to its surroundings.

Once constructed, the proposed project would represent a new feature within the primarily commercial area. Because of the commercial uses in the immediate vicinity of the project site, the addition of the proposed project would provide a new architectural aesthetic in an area that is older in character and would not conflict with the existing character, but enhance it. With specified design features included, the project would have less than significant impacts on the visual character of the site and the surroundings.

d) **Less than Significant Impact.** Excessive or inappropriately directed lighting can adversely impact night-time views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Sources of daytime glare are typically concentrated in commercial areas and are often associated with retail uses. Glare results from development and associated parking areas that contain reflective materials such as hi-efficiency window glass, highly polished surfaces, and expanses of pavement.

There are lighting sources adjacent to this site, including free-standing street lights, light fixtures on buildings, and pole-mounted lights. The proposed project includes exterior street lighting and interior lighting. Light spillover and glare would be avoided by requiring that light be designed to project downward and prohibiting the creation of glare on adjacent properties per the requirements of Municipal Code Section 9.10.110. Further, Section 9.10.110 of the Municipal Code prohibits illumination that exceeds 0.5 footcandles at adjacent properties. Compliance with the Municipal Code standards for lighting and glare would ensure that lighting and glare impacts would be less than significant.

4.2 – Agriculture and Forest 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. 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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a 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))?	☐	☐	☐	☑
d) Result in loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
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?	☐	☐	☐	☑

a) **No Impact.** The proposed project would be located in a fully developed, urbanized area that does not contain agriculture or forest uses. The Important Farmland in California (2014) prepared by the Department of Conservation identifies the project site as Urban and Built-Up Land and does not identify the project site as being Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[6] Therefore, there would be no conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to a non-agricultural use as a result of this project. No impact would occur.

b) **No Impact.** No Williamson Act contracts are active for the project site.[7] Therefore, there would be no conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c) **No Impact.** Public Resources Code § 12220(g) identifies forest land as *land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.* The project site and surrounding properties are not currently being managed or used for forest land as identified in Public Resources Code § 12220(g). The project site has already been disturbed, is surrounded by development, and located immediately south of SR-60. Therefore, development of this project would have no impact to any timberland zoning.

d) **No Impact.** The project site is vacant, disturbed land with limited non-native vegetation; thus, there would be no loss of forest land or conversion of forest land to non-forest use as a result of this project. No impact would occur.

e) **No Impact.** The project site is a vacant site within an urban environment. The project is surrounded by commercial and auto care uses, SR-60, and surface streets. None of the surrounding sites contain existing forest uses. Development of this proposed project would not change the existing environment in a manner that would result in the conversion of forest land to a non-forest use. No impact would occur.

4.3 – 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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐
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)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

a) **No Impact.** A significant impact could occur if the proposed project conflicts with or obstructs implementation of the South Coast Air Basin 2016 Air Quality Management Plan (AQMP). Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP.[8] Consistency review is presented below:

(1) The proposed project would result in short-term construction and long-term pollutant emissions that are less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated herein; therefore, the project would not result in an increase in the frequency or severity of any air quality standards violation and would not cause a new air quality standard violation.

(2) The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and *significant projects*. *Significant projects* include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities. This project is not defined as *significant* and does not include a General Plan Amendment. Therefore, the project would not require a consistency analysis with the AQMP.

Based on the above, the proposed project would not conflict with the AQMP; no impact would occur.

b) **Less than Significant Impact.** A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to existing or project air quality violations. The proposed project is located within the South Coast Air Basin, where efforts to attain state and federal air quality standards are governed by the South Coast Air Quality Management District (SCAQMD). Both the state of California (state) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as 'criteria pollutants'). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead (Pb). The state has also established AAQS for additional pollutants. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the state and federal standards differ, California AAQS are more stringent than the national AAQS.

Air pollution levels are measured at monitoring stations located throughout the air basin. Areas that are in nonattainment with respect to federal or state AAQS are required to prepare plans and implement measures that will bring the region into attainment. Table 2 (South Coast Air Basin Attainment Status) summarizes the attainment status in the project area for the criteria pollutants. Discussion of potential impacts related to short-term construction impacts and long-term area source and operational impacts are presented below.

Table 2
South Coast Air Basin Attainment Status

Pollutant	Federal	State
O_3 (1-hr)	--	Nonattainment
O_3 (8-hr)	Nonattainment	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Attainment
Sources: ARB		

Construction Emissions

The California Emissions Estimator Model (CalEEMod) version 2016.3.1 was utilized to estimate emissions from the proposed construction activities (see Appendix A, Air Quality and Climate Change Assessment). CalEEMod default construction phase lengths were utilized. The proposed project would take approximately ten months to complete.

Short-term criteria pollutant emissions would occur during grading, building construction, paving, and coating activities. Emissions will occur from use of equipment, worker, vendor, and hauling trips, and disturbance of on-site soils (fugitive dust). To determine if construction of the proposed project could result in a significant air quality impact, the California Emissions Estimator Model (CalEEMod) has been utilized. An estimated 500 cubic yards of soil would be removed during grading activities to make room for underground water storage tanks and the footings of the car wash.

The results of the model are summarized in Table 3 (Maximum Daily Construction Emissions). The model indicates that construction emissions would not exceed SCAQMD daily thresholds for any criteria pollutant.

Table 3
Maximum Daily Construction Emissions (lbs/day)

	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum	8.22	23.68	16.47	0.03	6.18	3.46
Threshold	75	100	550	150	150	55
Potentially Significant?	No	No	No	No	No	No

Source: MIG 2017

Operational Emissions

Operation of the proposed car wash facility would result in long-term criteria air pollutant emissions. Long-term emissions are categorized as area source emissions, energy demand emissions, and operational emissions. Operational emissions would result from vehicle sources associated with daily trips to and from the proposed car wash. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products, and periodic repainting of the small structure. Energy demand emissions result from use of electricity and natural gas.

The proposed car wash consists of one automated tunnel with five underground storage tanks to reclaim and recycle water. Water use for the car wash was estimated at 20 gallons per vehicle – though each individual vehicle washed would require more water, the Project Proponent estimates that the car wash would recycle up to 90% of all water used. As such, 20 gallons per vehicle is likely an overestimation for total water usage. Number of vehicles washed was estimated at 450 daily, based on a Trip Generation Manual from the City of San Diego for similar facilities.[9] San Diego exhibits similar characteristics to the rest of Southern California, making this trip rate applicable in Moreno Valley as well. With a resulting total of 164,250 vehicles washed annually, total water demand is estimated at 3,285,000 gallons per year. It has also been assumed that approximately 4.2312 kilowatt hours (kWh) of electricity is consumed per vehicle washed. Because data are not widely available on energy consumption by the type of vacuums used at these types of facilities, use has been overestimated, as well as the minimal energy that would be used by the small structure for employees.

CalEEMod was utilized to estimate mobile source emissions. As mentioned above, trip generation is based the "full service car wash" entry from the City of San Diego's Trip Generation Manual. CalEEMod also includes default outdoor water demand for landscape irrigation. Default inputs for all operational source were used for the project. Daily operational emissions as estimated by CalEEMod are summarized in Table 4 (Operational Daily Emissions). Operational emissions generated by operation of the proposed project would not exceed the thresholds established by SCAQMD.

Table 4
Operational Daily Emissions (lbs/day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer						
Area Sources	0.17	0.00	0.01	0.00	0.00	0.00
Energy Demand	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources	0.95	4.53	12.54	0.04	3.08	0.85
Summer Total	***1.12***	***4.53***	***12.54***	***0.04***	***3.08***	***0.85***
Winter						
Area Sources	0.17	0.00	0.01	0.00	0.00	0.00
Energy Demand	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources	0.92	4.65	11.85	0.04	3.08	0.85
Winter Total	***1.09***	***4.65***	***11.86***	***0.04***	***3.08***	***0.85***
SCAQMD Daily Threshold	55	55	550	150	150	55
Potentially Significant?	No	No	No	No	No	No

Source: MIG 2017

c) **Less than Significant Impact.** Cumulative short-term, construction-related emissions and long-term, operational emissions from the proposed project would not contribute considerably to any potential cumulative air quality impact because short-term project and operational emissions would not exceed any SCAQMD daily threshold. As required of the proposed project, other concurrent construction projects and operations in the region would be required to implement standard air quality regulations and mitigation pursuant to state CEQA requirements, thus ensuring that air quality standards are not cumulatively exceeded. Impacts would be less than significant.

d) **Less than Significant Impact.** Sensitive receptors are those segments of the population that are most susceptible to poor air quality such as children, the elderly, the sick, and athletes who perform outdoors. Land uses associated with sensitive receptors include residences, schools, playgrounds, childcare centers, outdoor athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Specific sensitive receptors within one-quarter mile of the project site include residential uses to the west of the project site. The proposed development would not generate toxic air contaminant emissions because the proposed uses do not produce such emissions. The proposed development, therefore, would have no impact on sensitive receptors related to toxic pollutant emissions.

Carbon Monoxide Hotspots

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to violate State and Federal CO standards at intersections, even if the broader Air Basin is in attainment for Federal and State levels. The California Department of Transportation Project-Level Carbon Monoxide Protocol (Protocol) screening procedures have been utilized to determine if the proposed project could potentially result in a CO hotspot. Based on the recommendations of the Protocol, a screening analysis should be performed for the proposed project to determine if a detailed analysis will be required. The California Department of Transportation notes that because of the age of the assumptions used in the screening procedures and the obsolete nature of the modeling tools utilized to develop the screening procedures in the Protocol, they are no longer accepted. More recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District (SMAQMD) developed a screening threshold in 2011 which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010 which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. A traffic study was not required for this project. According to the City of Moreno Valley's traffic counts provided on the City's website, the intersection of Heacock Street and Sunnymead Boulevard does not experience this level of traffic;[10] therefore, the project passes the screening analysis and impacts are deemed acceptable. Based on the local analysis procedures, the proposed project would not result in a CO hotspot.

Localized Significance Thresholds

As part of SCAQMD's environmental justice program, attention has recently been focusing more on the localized effects of air quality. Although the region may be in attainment for a particular criteria pollutant, localized emissions from construction activities coupled with ambient pollutant levels can cause localized increases in criteria pollutant that exceed national and/or state air quality standards.

Construction-related criteria pollutant emissions and potentially significant localized impacts were evaluated pursuant to the SCAQMD Final Localized Significance Thresholds Methodology. This methodology provides screening tables for one through five-acre project scenarios, depending on the amount of site disturbance during a day. Maximum daily oxides of nitrogen (NO_X), carbon monoxide (CO), and particulate matter (PM_{10} and $PM_{2.5}$) emissions would occur during construction of the project, grading of the project site, and paving. It should be noted that the results summarized in Table 5 (Two Acre Localized Significance Threshold Analysis) include application of SCAQMD Rule 403 and requires (the utilization of applicable best management practices to minimize fugitive dust emissions. A 61 percent reduction in fugitive dust emissions is assumed based on rule requirements. Table 5 summarizes on-site emissions as compared to the local thresholds established for Source Receptor Area (SRA) 24 (Perris Valley). A 25-meter receptor distance was used to reflect the proximity of nearby residential and commercial uses to the project site. No construction phase would exceed any localized threshold as summarized in Table 5.

Table 5
Two Acre Localized Significance Threshold Analysis

Construction Activity	CO	NO_X	PM_{10}	$PM_{2.5}$
Grading	7.03	18.29	5.79	3.33
Building Construction	14.36	19.24	1.23	1.19
Paving	8.99	10.45	0.61	0.56
Architectural Coating	1.85	2.01	0.15	0.15
Maximum	**14.36**	**19.24**	**5.79**	**3.33**
Threshold	**883**	**170**	**7**	**4**
Potentially Significant?	**No**	**No**	**No**	**No**
Source: MIG 2017				

e) **No Impact.** According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The proposed development does not include any of the above noted uses or process; no impact would occur.

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4.4 – Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☑	☐	
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 Game or US 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?	☐	☐	☐	☑

Evaluation of Environmental Impacts

A biological resource assessment was prepared by MIG and included as Appendix B. The purpose of the assessment was to verify the type, location, and extent of potential sensitive biological resources within the project site and vicinity. In addition, a burrowing owl habitat assessment was completed to determine the potential for burrowing owl to occur on the project site.

a) **Less than Significant Impact with Mitigation Incorporated.** The project site is vacant and showed signs of recent disking during the field survey. The project site is not identified as critical habitat for threatened and endangered species.[11] According to the biological resource assessment, no special-status plant species have been documented in the vicinity of the project site or have the potential to occur on the project site due to the absence of essential habitat requirements for the species, the absence of known occurrences within five miles of the project site, and/or the project site is outside the species known range of distribution. No impacts are anticipated to occur on the project site.

Although suitable burrowing habitat is present on site in the disturbed plant communities, burrowing owls are not expected to occur in or around the project site due to the lack of suitable burrows. However, Mitigation Measure BIO-1 has been incorporated. Mitigation Measure BIO-1 requires that pre-construction surveys be conducted within 14 days prior to ground disturbance to avoid take of burrowing owls. With incorporation of mitigation, impacts would be less than significant.

No other special-status wildlife species were observed on the project site or have the potential to occur on site due to the absence of suitable habitat.

Although no active nests were observed during the field survey, there is potential for ground-, tree-, and shrub-nesting birds to establish nests in and around the project site in the future. Therefore, Mitigation Measures BIO-2 and BIO-3 have been incorporated. Mitigation Measure BIO-2 requires that construction activities occur outside of the avian nesting season. If construction occurs during the nesting season, all suitable habitat shall be thoroughly surveyed for the presence of nests no more than five days prior to soil disturbance or vegetation removal. In the event that active nests are located, Mitigation Measure BIO-3 requires that a buffer be established, and protective measures as required by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. With incorporation of mitigation, impacts would be less than significant.

Mitigation Measures

BIO-1 All project sites containing burrowing owl habitat or burrows (based on Step 1 – Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls.

BIO-2 To avoid impacts to nesting birds, construction activities and construction noise should occur outside the avian nesting season (February 1 to September 1). If construction occurs within the avian nesting season, all suitable habitats shall be thoroughly surveyed for the presence of nests by a qualified biologist no more than five days prior to commencement of any soil disturbance or vegetation removal. If it is determined that the project site is occupied by nesting birds, Mitigation Measure BIO-3 would reduce impacts to less than significant levels.

BIO-3 If pre-construction nesting bird surveys locate active nests, no construction-related activities shall "take" place within 300 feet of sensitive bird nests and 500 feet of raptor nests, or as determined by a qualified biologist. Protective measures (e.g., sampling) shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements.

b-c) **No Impact.** The project site is vacant. According to the federal National Wetlands Inventory, the project site does not contain any riparian habitat or wetlands and the proposed project would not disturb any offsite wetlands.[12] There is no vegetation or on-site water features indicative of potential wetlands. No impact would occur.

d) **No Impact.** The project site is vacant and surrounded to the north, south, east, and west by development and roadways, preventing the use of the project site and surrounding area as a wildlife corridor. There are no substantial vegetated areas or waterbodies located onsite that could serve as habitat. The project site does not provide for the movement of any native resident or migratory fish or wildlife. No impact would occur.

e) **No Impact.** The project site is vacant. The City of Moreno Valley General Plan includes measures related to compliance with the long-term habitat conservation plan (HCP) for the Stephen's Kangaroo Rat, the Western Riverside County MSHCP. The occurrence of and suitability of the project site for Stephen's Kangaroo Rat was not observed. Therefore, the project would not conflict with those measures. As discussed below and in the biological resource assessment, the project would not conflict with the Western Riverside County MSHCP. No impact would occur.

f) **No Impact.** The project site is located within the Western Riverside County MSHCP Reche Canyon/Badlands Area Plan. However, the project site is not located within an MSHCP criteria area or area plan subunit. The project site does not occur within a predetermined Survey Area for narrow endemic plant species, criteria area plant species, amphibian species, burrowing owl, or mammal species. Therefore, no surveys are required for these species.

No riparian resources, riverine resources, or vernal pools pursuant to Section 6.1.2 of the MSHCP were identified on the project site. The project site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block. Therefore, an Urban/Wildlife Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required. No impacts would occur.

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4.5 – Cultural Resources

Would the project:

	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 '15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	☐	☑	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☑	☐	☐

A Phase I Cultural Resources Inventory for the proposed project was prepared by PAST, INC, attached as Appendix C.

a) **No Impact.** The project site is currently vacant, and no structures are located on site. As such, the proposed project would not cause an adverse change in the significance of a historical resource, and impacts to historic resources are not anticipated. No impact would result.

b) **Less than Significant Impact with Mitigation Incorporated.** The project site is located in an urbanized area that has been previously disturbed by past activities, including a structure that was demolished in approximately 1966-1967. According to the Phase I Cultural Resources Inventory, no prehistoric archaeological sites have been discovered within a half-mile of the project site. Despite previous disturbances of the project area that may have displaced archaeological resources on the surface, it is possible that intact archaeological resources exist at depth.

As a result, Mitigation Measures CR-1 through CR-4 have been implemented to reduce potentially significant impacts to previously undiscovered archaeological resources that may be accidentally encountered during project implementation to a less than significant level. Mitigation Measure CR-2 requires that all ground-disturbing activities be halted or diverted away from the find until an appropriate treatment plan is coordinated which may include securing a 100-foot radius around the find. Mitigation Measure CR-2 requires that a qualified Project Archeologist be present during all construction excavations and that 30-days advance notice be given to the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for all mass grading and trenching activities so that a tribal monitor may be present. Mitigation Measure CR-1 requires that the Project Archeologist prepare a Cultural Resources Management Plan. With implementation of Mitigation Measures CR-1 through CR-4, impacts would be less than significant.

Mitigation Measures

CR-1 Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City,

shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The Project archeologist and the Consulting Tribes(s) as defined in CR-1 shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;

c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

CR-2 Prior to the issuance of a grading permit, the City of Moreno Valley shall secure agreements with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The City is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

CR-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.

ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CR-1.

CR-4 The City shall verify that the following note is included on the Grading Plan:
"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

c) **Less than Significant Impact with Mitigation Incorporated.** The project site is located in an urbanized area that has been previously disturbed by past activities, including a structure that was demolished in approximately 1966-1967. According to the Moreno Valley General Plan, the project site is located in an area of low paleontologic resource sensitivity. However, it is possible that intact paleontologic resources exist at depth. As a result, Mitigation Measure CR-5 has been implemented to reduce potentially significant impacts to previously undiscovered paleontological resources and/or unique geological features that may be accidentally encountered during project implementation to a less than significant level. Mitigation Measure CR-5 requires that ground-disturbing activities be halted or diverted away from the vicinity if paleontological materials are encountered until an appropriate treatment plan is coordinated. With implementation of Mitigation Measure CR-5 through CR-8 impacts to paleontological resources would be less than significant.

Mitigation Measures

CR-5 The Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

CR-6 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

CR-7 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

CR-8 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

d) **Less than Significant Impact.** Because the project site has been disturbed, no human remains or cemeteries are anticipated to be disturbed by the proposed project. Any buried human remains would have been uncovered, collected, and/or destroyed at that time of initial development of the site. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed project. Similar to the discussion regarding archaeological resources above, it is also possible to encounter buried human remains during construction. As a result, Mitigation Measure CR-9 has been implemented to reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level.

Mitigation Measure CR-9 requires that in the unlikely event that human remains are uncovered the contractor shall be required to halt work in the immediate area of the find and to notify the County Coroner, in accordance with Health and

Safety Code § 7050.5, who must then determine whether the remains are of forensic interest. If the Coroner, with the aid of a supervising archaeologist, determines that the remains are or appear to be of a Native American, he/she shall contact the Native American Heritage Commission for further investigations and proper recovery of such remains, if necessary. Impacts would be less than significant with implementation of mitigation.

Mitigation Measure

CR-9 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-1 before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

4.6 – Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	☐	☐	☑	☐
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☐	☑

a.i) **Less than Significant Impact.** Although the project site is located in seismically active Southern California, the site is not located within an Alquist-Priolo Earthquake Fault Zone.[13] No active faults have been identified at the ground surface on the project site. Impacts would be less than significant.

a.ii) **Less than Significant Impact.** The proposed project will be subject to ground shaking impacts should a major earthquake in the area occur in the future. Potential impacts include injury or loss of life and property damage. According to the General Plan EIR, the San Jacinto Fault, located approximately 6.8 miles east of the project site, has the greatest potential to inflict earthquake damage within the City.[14]

The project site is subject to strong seismic ground shaking, as are virtually all properties in Southern California. The proposed building is subject to the seismic design criteria of the California Building Code (CBC). The 2016 California Building Code (California Building Code, California Code of Regulations, Title 24, Volume 2) contains seismic safety provisions with the aim of preventing building collapse during a design earthquake, so that occupants would be able to evacuate after the earthquake. A design earthquake is one with a two percent chance of exceedance in 50 years, or an average return period of 2,475 years. Adherence to these requirements will reduce the potential of the building from collapsing during an earthquake, thereby minimizing injury and loss of life. Although structures may be damaged during earthquakes, adherence to seismic design requirements will minimize damage to property within the structure because the structure is designed not to collapse. The CBC is intended to provide minimum requirements to prevent major structural failure and loss of life. Adherence to existing regulations will reduce the risk of loss, injury, and death; impacts due to strong ground shaking would be less than significant.

a.iii) **Less than Significant Impact.** Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition due to the effects of increased pore-water pressure. This typically occurs where susceptible soils (particularly the medium sand to silt range) are located over a high groundwater table. Affected soils lose all strength during liquefaction and foundation failure can occur. According to the Moreno Valley General Plan Update EIR, the project site is not located in an area that is subject to liquefaction.[15] The site is underlain by alluvium exhibits a very low seismic settlement potential and liquefaction would not be significant to the proposed development. Impacts due to seismically induced liquefaction would be less than significant.

a.iv) **No Impact.** The project site is relatively flat and has not been identified by the Department of Conservation Division of Mines and Geology or the General Plan as an area subject to potential landslides. No impact would occur.

b) **Less than Significant Impact.** Topsoil is used to cover surface areas for the establishment and maintenance of vegetation due to its high concentrations of organic matter and microorganisms. The project has the potential to expose surficial soils to wind and water erosion during construction activities. Wind erosion would be minimized through soil stabilization measures required by South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust), such as daily watering. Water erosion would also be prevented through the City's standard erosion control practices (Municipal Code Section 8.21.160) required pursuant to the California Building Code and the National Pollution Discharge Elimination System (NPDES), such as silt fencing or berms. Following project construction, the site would be covered completely by paving, the car wash structure, and landscaping. Impacts related to soil erosion would be less than significant with implementation of existing regulations.

c) **Less than Significant Impact.** Impacts related to liquefaction and landslides are discussed above in Sections 4.6.a and 4.6.b. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures.

Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e. retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope. Due to the absence of any channel within or near the subject site, and the subsurface soil conditions that are not conducive to liquefaction, the potential for lateral spread occurring on the project site is considered to be negligible. According to the General Plan EIR, areas within the San Jacinto Wildlife Area are subject to potential subsidence. The project site is not located within the San Jacinto Wildlife Area and therefore would not be subject to loss, injury, or death related to subsidence.

The proposed project is required to be constructed in accordance with the CBC. Compliance with existing CBC regulations would limit hazard impacts arising from unstable soils to less than significant levels.

d) **Less than Significant Impact.** The CBC requires special design considerations for foundations of structures built on soils with expansion indices greater than 20. The project is required to be constructed in accordance with the CBC. Compliance with existing CBC regulations would limit hazard impacts arising from unstable soils to less than significant levels. Impacts would be less than significant.

e) **No Impact.** The project proposes to connect to the existing municipal sewer system. The proposed project would connect to this system and would not require use of septic tanks. No impact would occur.

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4.7 – Greenhouse Gas Emissions

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑

a) **Less than Significant Impact.** Climate change is the distinct change in measures of climate for a long period of time.[16] Climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. Natural changes in climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (e.g., changes in ocean circulation). Human activities can affect the atmosphere through emissions of greenhouse gases (GHG) and changes to the planet's surface. Human activities that produce GHGs are the burning of fossil fuels (coal, oil and natural gas for heating and electricity, gasoline and diesel for transportation); methane from landfill wastes and raising livestock, deforestation activities; and some agricultural practices.

Greenhouse gases differ from other emissions in that they contribute to the "greenhouse effect." The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Greenhouse gases occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. Emissions of greenhouse gases affect the atmosphere directly by changing its chemical composition while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere.

Operational emissions associated with the proposed project would include GHG emissions from mobile sources (transportation), energy, water use and treatment, and waste disposal. GHG emissions from electricity use are indirect GHG emissions from the energy (purchased energy) that is produced offsite. Construction activities are short term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. Because of this difference, SCAQMD recommends amortizing construction emissions over a 30-year operational lifetime. This normalizes construction emissions so that they can be grouped with operational emissions in order to generate a precise project-based GHG inventory.

GHG emissions for the proposed project were quantified utilizing the California Emissions Estimator Model (CalEEMod) version 2016.3.1 to determine if it could have a cumulatively considerable impact related to greenhouse gas emissions (see

Appendix A, Air Quality and Climate Change Assessment), and summarized in Table 6 (Greenhouse Gas Emissions Inventory). The emissions inventory accounts for GHG emissions from construction activities, operational activities, and existing emissions.

Table 6
Greenhouse Gas Emissions Inventory

Source	GHG Emissions (MT/YR)			
	CO2	CH4	N2O	TOTAL*
Construction				
Total	261	<1	0.00	262
30-Year Amortization	*9*	*<1*	*0.00*	*9*
Operational				
Total	981	<1	<1	989
Project Construction + Operational Total	990	<1	<1	998
Total Emissions				***998***
Proposed SCAQMD Screening Threshold				**3,000**
Exceeds Screening Threshold?				***No***

Source: MIG 2016
** MTCO2E/YR*
Note: Slight variations may occur due to rounding. Construction emissions amortized over 30 years.

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not officially been adopted by the SCAQMD. As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* white paper, a non-zero threshold based on Approach 2 of the handbook will be used.[17] Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 3,000 metric tons carbon dioxide equivalent ($MTCO_2E$) per year for residential and commercial projects.[18] This threshold is based on the review of 711 CEQA projects.

Greenhouse gas emissions associated with the proposed project would not exceed the 3,000 $MTCO_2E$ threshold with implementation of existing standards and regulations; therefore, impacts would be less than significant.

b) **No Impact.** ARB's *Scoping Plan* identifies strategies to reduce California's greenhouse gas emissions in support of AB32. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as energy efficiency. Finally, while some measures are not directly applicable, the proposed project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).
4. **Renewables Portfolio Standards.** Achieve 33 percent renewable energy mix statewide.

5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard.
6. **Regional Transportation-Related Greenhouse Gas Targets.** Develop regional greenhouse gas emissions reduction targets for passenger vehicles.
7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures.
8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs.
10. **Medium- and Heavy-Duty Vehicles.** Adopt medium- (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010. Future, yet to be determined improvements, includes hybridization of MD and HD trucks.
11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. **High Speed Rail.** Support implementation of a high-speed rail system.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. **High Global Warming Potential Gases.** Adopt measures to reduce high warming global potential gases.
15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million MTCO2E/YR.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water.
18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

Table 7 (Scoping Plan Consistency Summary) summarizes the proposed project's consistency with the State Scoping Plan. As summarized, the proposed project would not conflict with any of the provisions of the Scoping Plan and in fact supports four of the action categories through energy efficiency, water conservation, recycling, and landscaping.

Table 7
Scoping Plan Consistency Summary

Action	Supporting Measures	Consistency
Cap-and-Trade Program	--	**Not Applicable.** These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not affect commercial projects.
Light-Duty Vehicle Standards	T-1	**Not Applicable.** This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1	**Consistent.** The project will include a variety of building, water, and solid waste efficiencies consistent with CALGREEN requirements.
	E-2	
	CR-1	
	CR-2	
Renewables Portfolio Standard	E-3	**Not Applicable.** Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	**Not Applicable.** Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related Greenhouse Gas Targets	T-3	**Not Applicable.** The project would not result in substantial emissions of greenhouse gas emissions; therefore, transportation related emissions reductions are not required.
Vehicle Efficiency Measures	T-4	**Not Applicable.** Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5	**Not applicable.** Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories.
	T-6	
Million Solar Roofs Program	E-4	**Not Applicable.** Sets goal for use of solar systems throughout the state.
Medium- & Heavy-Duty Vehicles	T-7	**Not applicable.** Medium-duty and heavy-duty trucks and trailers would not operate from the proposed project.
	T-8	
Industrial Emissions	I-1	**Not Applicable.** These measures are applicable to large industrial facilities (> 500,000 MTCOE2/YR) and other intensive uses such as refineries.
	I-2	
	I-3	
	I-4	
	I-5	
High Speed Rail	T-9	**Not Applicable.** Supports increased mobility choice.
Green Building Strategy	GB-1	**Consistent.** The project would include a variety of building, water, and solid waste efficiencies consistent with CALGREEN requirements.
High Global Warming Potential Gases	H-1	**Not Applicable.** The proposed project is not a substantial source of high GWP emissions and would
	H-2	

	H-3	comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
	H-4	
	H-5	
	H-6	
	H-7	
Recycling and Waste	RW-1	**Consistent.** The project would be required to recycle a minimum of 50 percent from construction activities and operations per state requirements.
	RW-2	
	RW-3	
Sustainable Forests	F-1	**Not Applicable.** The project site is not forested, and the project would not result in the loss of any forest land.
Water	W-1	**Consistent.** The project would include use of low-flow fixtures and efficient landscaping per state requirements.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	**Not Applicable.** The project is not an agricultural use.

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4.8 – Hazards and Hazardous Materials

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑	☐

Evaluation of Environmental Impacts

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑

a) **Less than Significant Impact.** The proposed project could result in a significant hazard to the public if it includes the routine transport, use, or disposal of hazardous materials or places housing near a facility which routinely transports, uses, or disposes of hazardous materials. The proposed project is located within a commercial area immediately south of SR-60 and is surrounded by commercial and auto care uses, SR-60, and surface streets. The proposed project would not place housing near any hazardous materials facilities. The routine use, transport, or disposal of hazardous materials is primarily associated with industrial uses which require such materials for manufacturing operations or produce hazardous wastes as by-products of production applications. The proposed project does not propose or facilitate any activity involving significant use, routine transport, or disposal of hazardous substances.

Construction of the proposed project would require the use and transport of hazardous materials such as asphalt, paints, and other solvents. Construction activities could also produce hazardous wastes associated with the use of such products. Construction of the proposed project requires ordinary construction activities and would not require a substantial or uncommon amount of hazardous materials to complete. All hazardous materials are required to be utilized and transported in accordance with their labeling pursuant to federal and state law. Routine construction practices include good housekeeping measures to prevent/contain/clean-up spills and contamination from fuels, solvents, concrete wastes and other waste materials. Impacts would be less than significant.

With regard to project operation, widely used hazardous materials common at commercial uses include paints and other solvents, cleaners, and pesticides. Operation of the proposed car wash would involve the use of cleaning solutions and paints for routine maintenance and re-coating of the project structures. The remnants of these and other products are disposed of as household hazardous waste (HHW) that includes used dead batteries, electronic wastes, and other wastes that are prohibited or discouraged from being disposed of at local landfills. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. Impacts associated with the routine transport, use, or disposal of hazardous materials or wastes would be less than significant.

b) **Less than Significant Impact.** According to the State Water Resources Control Board, there are no open cases of leaking underground storage tanks (LUST) within one-quarter mile of the project site.[19] There would be no impact related to the release of hazardous materials into the environment as a result of the proposed project.

Construction of the proposed project would require the use and transport of hazardous materials such as asphalt, paints, and other solvents. Construction activities could also produce hazardous wastes associated with the use of such products. Construction of the proposed development requires ordinary construction activities and would not require a substantial or uncommon amount of hazardous materials to complete. All hazardous materials are required to be utilized and transported in accordance with their labeling pursuant to federal and state law. Routine construction practices include good housekeeping measures to prevent/contain/clean-up spills and contamination from fuels, solvents, concrete wastes and other waste materials. Impacts would be less than significant.

With regards to project operation, the proposed car wash would not involve the use of hazardous materials or generate hazardous waste that could 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. Project operation would involve the use of solvents, cleaners, and waxes used for typical car wash operations and would not pose a significant risk. Impacts would be less than significant.

c) **No Impact.** There are no schools located within or are planned to be located within one-quarter mile of the project site. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

d) **No Impact.** The proposed project is not located on a site listed on the state *Cortese List*, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses. [20]

Based upon review of the *Cortese List*, the project site is not:

- listed as a hazardous waste and substance site by the Department of Toxic Substances Control (DTSC),[21]
- listed as a leaking underground storage tank (LUFT) site by the State Water Resources Control Board (SWRCB),[22]
- listed as a hazardous solid waste disposal site by the SWRCB,[23]
- currently subject to a Cease and Desist Order (CDO) or a Cleanup and Abatement Order (CAO) as issued by the SWRCB,[24] or
- developed with a hazardous waste facility subject to corrective action by the DTSC.[25]

e-f) **No Impact.** There are no public airports, private airstrips, or heliports within two miles of the project site.[26] No impact related to airport operations would occur.

g) **Less than Significant Impact.** Per state Fire and Building Codes, sufficient space will have to be provided around the buildings for emergency personnel and equipment access and emergency evacuation. All project elements, including landscaping, would be sited with sufficient clearance from existing and proposed structures so as not to interfere with emergency access to and evacuation from the facility. The proposed project is required to comply with the California Fire Code as adopted by the Moreno Valley Municipal Code (Chaper 8.36). The site plan includes one ingress/egress access point via a driveway on Sunnymead Boulevard at the southeastern corner of the project site.

The project driveway would allow emergency access and evacuation from the site, and would be constructed to California Fire Code specifications. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan because no permanent public street or lane closures are proposed. Construction work in the street associated with the buildings would be limited to lateral utility connections would be limited to nominal potential traffic diversion. Project impacts would be less than significant.

h) **No Impact.** The project site is not located within a fire hazard zone, as identified on the latest Fire Hazard Severity Zone (FHSZ) maps prepared by the California Department of Forestry and Fire Protection (CALFIRE).[27] There are no wildland conditions in the urbanized area where the project site is located. No impact would occur.

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4.9 – Hydrology and Water Quality

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
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)?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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 amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
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?	☐	☐	☑	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑

Evaluation of Environmental Impacts

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

a) **Less than Significant Impact.** A project normally would have an impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Water Code § 13050, or that cause regulatory standards to be violated as defined in the applicable National Pollutant Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact could occur if the project would discharge water that does not meet the quality standards of the agencies which regulate surface water quality and water discharge into stormwater drainage systems. Significant impacts could also occur if the project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include preparation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce potential water quality impacts during construction activity (Moreno Valley Municipal Code Section 8.21.170) and the implementation of post-construction best management practices (BMPs) (Moreno Valley Municipal Code Section 8.10.050).

Construction Impacts

Three general sources of potential short-term, construction-related stormwater pollution associated with the proposed project include: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth-moving activities which, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. All new development projects equal to one acre or more are subject to Riverside County NPDES Permit No. CAS 618033. The proposed project would disturb approximately 1.68 acres of land and therefore will be subject to NPDES permit requirements during construction activities. In addition, pursuant to Municipal Code Section 8.21.170, the project shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP). All construction projects must apply BMPs that include drainage controls such as detention ponds, dikes, filter berms, and downdrains to prevent runoff, and utilizing plastic covering to prevent erosion. Compliance with City discharge requirements would ensure that the construction of the proposed project would not violate any water quality standards or discharge requirements, or otherwise substantially degrade water quality. Impacts would be less than significant with implementation of existing regulations.

Operational Impacts

Proposed construction will increase impervious areas as the site currently does not consist of any impervious surfaces. The approximately 1.68-vacant site, will be replaced with a car wash structure, vacuum area, office, restrooms, and associated paving and landscaping. Runoff from the developed site would result in increased potential water contamination from urban pollutants that are commonly found in surface parking lots, ornamental landscape planters and from atmospheric buildup on rooftops. The proposed project would be subject to post-construction BMPs to address increases in impervious surfaces, methods to decrease incremental increases in off-site stormwater flows, and methods for decreasing pollutant loading in off-site discharges. A key design criterion is to treat the first ¾-inch rainstorm flows, since the first rains typically carry the most concentrated levels of pollution that have built up since the last storm. Common post-construction BMPs include retaining stormwater on-site to filter back into the groundwater. The proposed project includes six bio swales within landscaped areas of the site. On-site storm drainage facilities will collect stormwater to be conveyed to the bio swales for treatment, and then

pumped to the City storm drainage system on Sunnymead Boulevard. The proposed development would not generate hazardous wastewater that would require any special waste discharge permits. All wastewater associated with the building's interior plumbing system would be discharged into the local sewer system for treatment at the regional wastewater treatment plant. Although the amount of impervious surfaces would be greater than existing conditions, runoff would be captured on site and conveyed through a proposed on-site storm drainage system which includes water treatment at the site's various bio swales prior to being discharged into the municipal storm drain at Sunnymead Boulevard. Impacts would be less than significant with implementation of existing regulations.

b) **Less than Significant Impact.** If the proposed project removes an existing groundwater recharge area or substantially reduces runoff that results in groundwater recharge such that existing wells would no longer be able to operate, a potentially significant impact could occur. The project site is located in Perris Valley Groundwater Basin (Basin). According to the Moreno Valley General Plan Update EIR, groundwater depths range from approximately 100 feet to 150 feet below the ground surface. Project-related grading would not reach these depths and no disturbance of groundwater is anticipated. The proposed building footprint and pavement area would increase impervious surface coverage on the site, thereby reducing the total amount of infiltration onsite. However, according to the General Plan EIR, infiltration of irrigation water through soil and water from runoff through soft-bottom channels would ensure continued groundwater recharge in Moreno Valley as impervious surfaces increase. The project site is not utilized for groundwater recharge and will include landscaped areas that would serve as infiltration. Because this site is not managed for groundwater supplies and would provide landscaped areas for continued infiltration, this change in infiltration would not have a significant effect on groundwater table level. Impacts would be less than significant.

c) **Less than Significant Impact.** Potentially significant impacts to the existing drainage pattern of the site or area could occur if development of the project results in substantial on- or off-site erosion or siltation. Stormwater would be collected on site and conveyed to the various on-site bio swales for treatment and then conveyed to the City's storm drainage system at Sunnymead Boulevard. Therefore, the drainage pattern would not be substantially altered in a manner than could cause increases in erosion off-site. Erosion and siltation reduction measures would be implemented during construction. At the completion of construction, the project would consist of impervious surfaces and would therefore not be prone to substantial erosion. No streams cross the project site; thus, the project would not alter any stream course. Impacts would be less than significant.

d-e) **Less than Significant Impact.** No streams traverse the project site; thus, the project would not result in the alteration of any stream course. During construction, the project applicant would be required to comply with drainage and runoff guidelines pursuant to Municipal Code Chapter 8.10.

With regard to project operation, construction of the proposed project would increase the net area of impermeable surfaces on the site; therefore, increased discharges to the City's existing storm drain system would likely occur. Stormwater would be collected on site and conveyed to the various on-site bio swales for treatment and then conveyed to the City's storm drainage system at Sunnymead Boulevard. Permits to connect to the existing storm drainage system would be obtained prior to construction. All drainage plans are subject to City review and approval. Therefore, the increase in discharges would not impact local storm drain capacity. The proposed project is not an industrial use and therefore would not result in substantial pollutant loading such that treatment control BMPs would be required to protect downstream water quality. Impacts would be less than significant.

f) **Less than Significant Impact.** The project does not propose any uses that could have the potential to otherwise degrade water quality beyond those issues discussed in Section 4.9 herein. Impacts would be less than significant.

g & h) **No Impact.** According to flood maps prepared by the Federal Emergency Management Agency, the project site is not located within a 100-year flood floodplain.[28] No impact would occur.

i) **No Impact.** According to the Moreno Valley General Plan, the project site is not located within a dam inundation area.[29] No impact would result.

j) **No Impact.** The City is not exposed to tsunami hazards due to its inland location. In addition, no large water bodies that would pose potential for seiche are located in the project area. The potential for mudflows is unlikely given the site's distance from hillside and mountainous terrain. No impact would occur.

4.10 – Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any 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?	☐	☐	☑	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

a) **No Impact.** The proposed project is surrounded by commercial uses to the west, south, and east and State Route 60 (SR-60) to the north. The proposed project is consistent and compatible with the surrounding land uses and would not divide an established community. The proposed project does not involve construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. Therefore, no impact would occur.

b) **Less than Significant Impact.** The project site is designated as *Commercial* in the City's General Plan and is zoned *Community Commercial*. The proposed project does not require amending the General Plan or zoning ordinance. Section 9.04.040 of the Moreno Valley Municipal Code provides general site development standards for commercial uses. For the Community Commercial zone, the minimum site area is one acre with a parking front street setback of 20 feet. The project site is 1.68 acres and the Site Plan indicates a front parking setback of 20 feet from Sunnymead Boulevard. The primary purpose of the Community Commercial zone is to provide for general shopping with a variety of business, retail, personal, and related or similar services. The proposed project does not conflict with the intent or implementation of this designations. Furthermore, the proposed project would maintain the integrity of the surrounding commercial area in terms of density, use, and design. The project does not include any feature that would circumvent any mitigating policies in the Moreno Valley General Plan. Impacts would be less than significant.

c) **No Impact.** As discussed in Section 4.4.f above, the project site is located within the Western Riverside County MSHCP Reche Canyon/Badlands Area Plan. The project site is not located within an MSHCP criteria area or area plan subunit. The project site does not occur within a predetermined Survey Area for narrow endemic plant species, criteria area plant species, amphibian species, burrowing owl, or mammal species. Therefore, no surveys are required for these species. No riparian resources, riverine resources, or vernal pools pursuant to Section 6.1.2 of the MSHCP were identified on the project site. The project site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block. Therefore, an Urban/Wildlife Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required. No impacts would occur.

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4.11 – Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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-b) **No Impact.** The project site is located in a completely urbanized area. There are no mineral extraction or process facilities on or near the site.[30] No mineral resources are known to exist within the vicinity. No impact would occur.

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4.12 – Noise

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☑	☐	☐
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 substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☑	☐	☐
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Sound pressure levels are described in logarithmic units of ratios of sound pressures to a reference pressure, squared. These units are called *bels*. In order to provide a finer description of sound, a *bel* is subdivided into ten *decibels*, abbreviated dB. To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA. In fact, they would combine to produce 73 dBA. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3 dBA. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3 dBA change in sound is the beginning at which humans generally notice a *barely perceptible* change in sound and a 5 dBA change is generally *readily perceptible*.[31]

Noise consists of pitch, loudness, and duration; therefore, a variety of methods for measuring noise have been developed. According to the California General Plan Guidelines for Noise Elements, the following are common metrics for measuring noise:[32]

L_{EQ} (Equivalent Energy Noise Level): The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over given sample periods. L_{EQ} is typically computed over 1-, 8-, and 24-hour sample periods.

CNEL (Community Noise Equivalent Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00pm to 10:00pm and after addition of ten decibels to sound levels in the night from 10:00pm to 7:00am.

L_{DN} (Day-Night Average Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of ten decibels to sound levels in the night after 10:00pm and before 7:00am.

CNEL and L_{DN} are utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night. L_{EQ} is better utilized for describing specific and consistent sources because of the shorter reference period.

City of Moreno Valley Municipal Code

Noise Standards

Pursuant to Section 11.80.030 of the Moreno Valley Municipal Code, no person shall operate or cause to be operated a public or private motor vehicle, or combination of vehicles towed by a motor vehicle, that creates a sound exceeding the sound level limits below during daytime hours (between the hours of 8:00 AM and 10:00 PM):

- Residential – 60 dBA
- Commercial – 65 dBA

Construction Noise Levels

Pursuant to Section 11.80.030(D)(7), construction work conducted between the hours of 8:00 PM and 7:00 AM is prohibited.

a, c, d) **Less than Significant Impact with Mitigation Incorporated.** The Moreno Valley Municipal Code (Section 11.80.030) sets allowable levels for residential and commercial land uses. Exterior noise exposure for residential use is allowable up to 60 dBA and 65 dBA for commercial uses.

Construction Noise Levels

Construction noise levels were estimated for nearby receptors using the FHWA Roadway Construction Noise Model (RCNM). Temporary noise increases will be greatest during the site preparation phase of construction. The model indicates that the use of construction equipment such as graders and tractors could expose the auto care uses located approximately 100 feet from the center of the project site to worst case noise levels of 79.0 dBA L_{max}. Table 8 (Construction Noise Impacts) below summarizes the maximum noise levels at each of the studied receivers. Pursuant to the Moreno Valley Municipal Code, a noise level of 65 dBA is allowable for commercial uses. Pursuant to Section 11.80.030(D)(7) of the Municipal Code, construction work conducted between the hours of 8:00 PM and 7:00 AM is prohibited. As shown in Table 8, the neighboring commercial uses could be exposed to construction noise levels in excess of 65 dBA. Therefore, Mitigation Measure N-1 has been incorporated to minimize general construction noise impacts to neighboring uses.

Table 8
Construction Noise Impacts

Receptor	Grading	Building Construction	Paving	Architectural Coating
1 – Auto Care (W)	79.0	79.0	79.0	71.6
2 – Fast Food Restaurant (E)	77.4	77.4	77.4	70.1
3 – Service Station (E)	73.9	73.9	73.9	66.5
Source: MIG 2017				

In order to ensure that construction noise is minimized at nearby receptors, Mitigation Measure N-1 have been incorporated to minimize noise associated with general construction activities. Mitigation Measure N-1 requires the use of engineered controls include retrofitting equipment with improved exhaust and intake muffling, disengaging equipment fans, and installation of sound panels around equipment engines to be verified by the preparation of a noise mitigation plan once specific construction programing and equipment is identified. These types of controls can feasibly achieve noise level reductions of approximately 10 dBA.[33] [34] Should the noise mitigation plan find that the use of engineered controls will not sufficiently reduce construction noise, the noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise and neighboring uses. Sound curtains and other noise barriers can be used for general construction noise and achieve reductions of up to 20 dBA.[35] Therefore, with implementation of Mitigation Measure N-1, construction noise would feasibly be reduced to less-than-significant levels.

Mitigation Measure

N-1 The following measures are required to ensure that project-related short-term construction noise levels are reduced to less-than-significant levels. Prior to issuance of demolition permits, a noise mitigation plan verifying that compliance with the following measures would reduce construction noise to within the allowable levels of 65 dBA for commercial uses. Should construction noise exceed allowable levels after implementation of the following measures, the use of sound curtains or other noise barriers shall be required. The noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise to within allowable levels.

- Stationary construction noise sources such as generators or pumps must be located at least 100 feet from sensitive land uses, as feasible, or at maximum distance when necessary to complete work near sensitive land uses. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted noise monitor. Datasheets completed by the contracted construction noise monitor may be submitted to the Planning Official, or designee during routine inspections.

- Construction staging areas must be located as far from noise sensitive land uses as feasible. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted construction noise monitor, by the Planning Official or designee during routine inspections.

- Throughout construction, the contractor shall ensure all construction equipment is equipped with included noise attenuating devices and are properly maintained. This mitigation measure shall be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.

- Idling equipment must be turned off when not in use. This mitigation measure may be periodically monitored by a contracted construction noise monitor the Planning Official, or designee during routine inspections.

- Equipment must be maintained so that vehicles and their loads are secured from rattling and banging. This mitigation measure may be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.

Operational Noise Levels

Car Wash Equipment Noise

A noise assessment study was prepared by Bruce Walker, Ph.D. to estimate noise levels resulting from the operation of vacuum equipment and drying fans at the proposed car-wash facility (refer to Appendix D). The estimate was assessed using the ISO 9613-2 standard model in SoundPlan 7.3. Noise limits were determined from the Moreno Valley Noise Ordinance, which limits daytime noise to 60 dB (55 dB nighttime) on residential properties and 65 dB (60 dB nighttime) on commercial properties.

Existing uses that may be affected by project sound sources are a row of auto-repair and related industrial uses to the west, with an existing 6 feet high concrete block wall on the boundary, a self-serve service station at the northeast, a small restaurant to the east and a Jack-in-the Box restaurant to the southeast. The nearest residential uses are on the west side and the north end of Loraine Terrace, mostly shielded by the auto-repair facilities.

As a point of comparison, a brief series of ambient noise measurements was undertaken near the east side of the project site and near an existing residence at the north end of Loraine Terrace on June 11, 2017 (see Appendix D). Noise peaks registered above 60 dB from noisy vehicles on the SR-60 off-ramp at the north end of the site.

Tunnel equipment noise emission levels were determined by acoustic measurements conducted between 18 to 20 feet from the entrance and exit of the existing Water Drops carwash facility near Channel Islands Boulevard and Oxnard Boulevardin the City of Oxnard. Each vacuum station is equipped with a manifold-served vacuum line, served by central equipment in an enclosed space. Sound levels were measured at a distance of 10 feet while a car was systematically vacuumed. Due to attenuation along the length of the wash tunnel, the entry sound level is 8 dB lower than the exit sound level. The measured levels, together with measured levels 3 ft in front of the equipment room door louvers, were converted to A-weighted sound power levels and used as input for the SoundPlan model.

Based on in-situ observations during a mid-sunny-day visit to the existing facility, the SoundPlan model was set up with 11 vacuum uses in two rows with stations partially covered by canopies. Based on observations, probability is low that 11 vacuums would actually be in operation simultaneously; therefore, model predictions are based upon a worst-case scenario.

Noise contour computations indicate that sound levels during tunnel drier operation would exceed the City's allowable daytime threshold for commercial properties of 65 dB at locations near the tunnel entry and exit at the east side of the site. Implementation of Mitigation Measure N-2 is required in order to comply with the City of Moreno Valley's noise ordinance and to reduce potential operational noise impacts to a less than significant level.

Mitigation Measure

N-2. The following measures are required to ensure that project-related operational noise levels are reduced to less-than-significant levels.

- In order for operational noise levels to comply with the City's ordinance, the height of the tunnel entry and exit openings shall be limited to no more than 10 feet and the east wall of the tunnel shall extend 30 feet northward and southward at a height of 10 feet to provide adequate shielding and reduce property line sound levels to 65 dB.

- In order to provide adequate of sound attenuation, two sound barrier walls will be constructed at the east side of the wash tunnel entry to the south and exit to the north. At a height of 10 feet, the sound barriers shall extend 30 feet northward from the northwest corner of the building and 30 feet southward from the southwest corner of the building at a height of 10 feet. The western surface of the extended wall at the south (entrance) shall be treated with outdoor sound absorbing material, such as IAC Noise-Foil panels. The material could be any impervious construction with a surface density of at least 2 pounds per square foot. The eastern face of both walls shall be treated with sound absorbing surface material with NRC 0.7 or greater. Along the west side of the site, the existing barrier will provide adequate shielding from the vacuum equipment to reduce levels to below 65 dB at the commercial/industrial uses and to well below 60 dB at the residences further west.

Traffic Noise

According to traffic counts conducted for the City of Moreno Valley in 2014, there were 15,300 average daily trips (ADT) along Sunnymead Boulevard.[36] An annual growth rate of one percent has been added to 2014 trips account for ambient growth from 2014 to 2017 without addition of the proposed project. With consideration of ambient growth, existing ADT along Sunnymead Boulevard is estimated to be 15,764 without the proposed project. As discussed in Section 4.3, the estimated daily project trips is 450.[37] Therefore, Existing Plus Project daily trips along Sunnymead Boulevard are estimated to be 16,214.

Traffic noise along Sunnymead Boulevard (without consideration of traffic noise along SR-60) has been modeled for Existing (2017) and Existing Plus Project conditions to determine if increases in traffic due to the proposed project would result in perceptible increases in traffic noise at neighboring receptors. Commercial uses along Sunnymead Boulevard are generally located approximately 50 feet from the roadway centerline. The Existing and Existing Plus Project noise levels at 50 feet from roadway centerlines were calculated using TNM Version 2.5 (see Appendix E for modeling files).

The Existing Without Project and Plus Project traffic noise for commercial uses along Sunnymead Boulevard are summarized in Table 9 (Roadway Noise Levels). Existing traffic noise levels exceed allowable exterior noise levels for commercial receptors; therefore, the proposed project would not cause noise standards to be exceeded. In addition, increases in traffic due to the proposed project would not result in a perceptible noise increase at uses along Sunnymead Boulevard. Impacts would be less than significant.

Table 9
Roadway Noise Levels

Roadway	Without Project	Plus Project	Difference	Significant?
	dBA CNEL			
Sunnymead Boulevard	73.7	73.8	+0.1	No

Source: MIG 2017

b) **Less than Significant Impact.** Vibration is the movement of mass over time. It is described in terms of frequency and amplitude and unlike sound; there is no standard way of measuring and reporting amplitude. Vibration can be described in units of velocity (inches per second) or discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV) that describes particle movement over time (in terms of physical displacement of mass). For purposes of this analysis, PPV will be used to describe all vibration for ease of reading and comparison. Vibration can impact people, structures, and sensitive equipment.[38] The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Operation of the proposed project does not include uses that cause vibration.

Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels.

According to the Caltrans vibration manual, large bulldozers, vibratory rollers (used to compact earth), and loaded trucks utilized during grading activities can produce vibration, and depending on the level of vibration, could cause annoyance at uses within the project vicinity or damage structures. Caltrans has developed a screening tool to determine of vibration from construction equipment is substantial enough to impact surrounding uses.

The Caltrans vibration manual establishes thresholds for vibration impacts on buildings and humans. These thresholds are summarized in Tables 10 (Vibration Damage Potential Threshold Criteria) and 11 (Vibration Annoyance Potential Threshold Criteria).

Table 10
Vibration Damage Potential Threshold Criteria

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2013		

Table 11
Vibration Annoyance Potential Threshold Criteria

Human Response	PPV Threshold (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Source: Caltrans 2013		

Construction activities that use vibratory rollers and bulldozers are repetitive sources of vibration; therefore, the *continuous* threshold is used. Commercial uses adjacent to the project site are located to the west and east. As a worst-case scenario, the *historic and some older buildings* threshold is used. Based on the threshold criteria summarized in Tables 11 and 12, vibration from use of heavy construction equipment for the proposed project would be below the thresholds to cause damage to nearby structures at the receptors shown in Table 12 (Construction Vibration Impacts).

Construction of the project would not require rock blasting, or pile driving, but could require use a vibratory roller, small bulldozer, loaded trucks, and jackhammer. All of the receptors will experience *barely perceptible* vibration from the use of this equipment. Furthermore, pursuant to the Moreno Valley Municipal Code Section 8.14.040E, any construction shall only be completed between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, excluding holidays, and from 8:00 a.m. to 4:00 p.m. on Saturday, unless written approval is obtained from the City building official or City engineer. Therefore, the project would not result in excessive, strongly perceptible vibration.

With regard to long-term operational impacts, activities associated with the project would not result in any excessive vibration-related impacts to adjacent or on-site properties.

Table 12
Construction Vibration Impacts

Receptors	Equipment	PPVref	Distance (feet)	PPV
1 – Auto Care (W)	Vibratory Roller	0.21	100	0.0346
2 – Fast Food Restaurant (E)	Vibratory Roller	0.21	120	0.0273
3 – Service Station (E)	Vibratory Roller	0.21	180	0.0161
1 – Auto Care (W)	Small Bulldozer	0.003	100	0.0005
2 – Fast Food Restaurant (E)	Small Bulldozer	0.003	120	0.0004
3 – Service Station (E)	Small Bulldozer	0.003	180	0.0002
1 – Auto Care (W)	Loaded Truck	0.076	100	0.0125
2 – Fast Food Restaurant (E)	Loaded Truck	0.076	120	0.0099
3 – Service Station (E)	Loaded Truck	0.076	180	0.0058
1 – Auto Care (W)	Jackhammer	0.035	100	0.0058
2 – Fast Food Restaurant (E)	Jackhammer	0.035	120	0.0046
3 – Service Station (E)	Jackhammer	0.035	180	0.0027
Source: MIG 2017				

e,f) **No Impact.** The project site is not located within two miles of a public or private use airport or heliport.[39] Therefore, no impacts would occur.

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4.13 – Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☑
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?	☐	☐	☐	☑

a) **No Impact.** The proposed project consists of a car wash facility that would employ a maximum of three employees and would not induce population growth. No new expanded infrastructure is proposed that could accommodate additional growth in the area that is not already possible with existing infrastructure. No impact would occur.

b) **No Impact.** The project site is vacant and does not contain residential uses. The proposed project would not displace any residential units necessitating the construction of replacement housing elsewhere. No impact would occur.

c) **No Impact.** Displacement, in the context of housing, can generally be defined as persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence.[40] There no residences existing on site and no residents would be displaced with project development. The development of the project is consistent with the character of the project site. No impact would occur.

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4.14 – Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for 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 any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☑	☐
b) Police protection?	☐	☐	☑	☐
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☑	☐

a) **Less than Significant Impact.** The Riverside County Fire Department provides fire protection, fire prevention, and emergency medical aid to the City of Moreno Valley. The Fire Prevention and Administration Bureau is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center. The fire station located nearest to the project site is Station 2 (24935 Hemlock Avenue), located approximately one-mile northeast of the project site. According to the General Plan EIR, the Department sets a goal to arrive on the scene of emergencies within five minutes of notification, 90 percent of the time.

According to the General Plan EIR, a 1999 impact fee study concluded that Station 2 and Station 58 would need to be replaced and three new stations would be needed through buildout of the City. Since the preparation of the 1999 impact fee study, Station 2 had been relocated to its current Hemlock Avenue location and one new station (College Park) has been constructed. Each new development, including the proposed project, shall be assessed a fee to contribute to its fair share of the cost of new fire facilities.

The proposed project would include the development a car wash within a built-out area. The proposed project would not have a significant impact on fire response times because the project is located within the existing service area. No new or expanded fire protection facilities would be required as a result of this project. Furthermore, the proposed project does not propose to use substantially hazardous materials or engage in hazardous activities that would require new or modified fire protection equipment to meet potential emergency demand. Impacts related to expansion of fire protection services would be less than significant.

b) **Less than Significant Impact.** The City of Moreno Valley contracts with the Riverside County Sheriff's Department to staff the Moreno Valley Police Department (MVPD). The Department is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center. The City is divided into four Zones with police officers assigned to a specific one to improve response times. Each Zone is comprised of a team that consist of one Zone Commander, one Zone Supervisor, and one Zone Coordinator. The project site is located in Zone 2. According to the City's

latest fiscal year budget (2016/2016 – 2016/2017), the Department is estimated to be funded for 48.5 non-sworn officers and 150 sworn officers, which is consistent with the previous fiscal year.

The proposed car wash would not result in any unique or more extensive crime problems that cannot be handled with the existing level of police resources. The proposed project is located in a built environment within the MVPD service area. No new or expanded police facilities would need to be constructed as a result of this project. Furthermore, the 1999 development fee impact study concluded that the existing police building, and the planned expansion of the facility would serve the needs of the City through buildout. All new development, including the proposed car wash, would be subject to pay development impact fees to cover its fair share of the cost for facility expansion. Impacts related to expansion of police protection services would be less than significant.

c) **No Impact.** As a car wash, there is no potential for households with school-age children locating in this development. No impact to school facilities would occur.

d) **No Impact.** Demand for park and recreational facilities are generally the direct result of residential development. The proposed project consists of a car wash and would not result in increased use of existing recreational facilities. No impact would occur.

e) **Less than Significant Impact.** The proposed project consists of the development of a car wash. The project would not result in an increase in residents that would generate additional demand for public facilities such as libraries or hospitals. Development of the proposed project would not require expansion of any other public services such as libraries or hospitals. The proposed development would not significantly increase the demand of such services. A less than significant impact would occur.

4.15 – Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the 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) **No Impact.** The proposed project consists of a car wash and would not result in increased use of existing recreational facilities. Therefore, no impact would occur.

b) **No Impact.** The project consists of a car wash and would not result in the construction or expansion of on-site or existing outdoor recreational facilities. Therefore, there would be no adverse physical effect on the environment caused by expansion or construction of outdoor recreational facilities. No impact would occur.

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4.16 – Transportation and Traffic

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☑	☐
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?	☐	☐	☑	☐

a) **Less than Significant Impact.** A traffic impact study was not prepared for the proposed project. According to the City of San Diego Land Development Code Trip Generation Manual, full service car washes are estimated to generate 450 trips per day. According to the Institute of Traffic Engineers (ITE) Trip Generation Handbook 9th Edition, automated car washes are estimated

to generate 13.63 PM peak hour trips per thousand square feet of the facility. The car wash tunnel, which allows one car to be washed at one time, is 3,120 square feet (see Exhibit 2, Site Plan) and is estimated to generate 43 PM peak hour trips.

A traffic study was not required by the City of Moreno Valley. To assess project impacts, the roadway capacity for Sunnymead Boulevard was analyzed. According to the Moreno Valley General Plan Update EIR, the design capacity for Sunnymead Boulevard is 33,750 ADT. Table 13 (Roadway Capacity) summarizes estimated daily traffic. As shown in Table 13, daily traffic on Sunnymead Boulevard is within the design capacity of 33,750 ADT. Therefore, impacts would be less than significant.

Table 13
Roadway Capacity

Roadway	Average Daily Traffic Volumes			Design Capacity	Acceptable Traffic Volume?
	Existing	Project	Existing Plus Project		
Sunnymead Boulevard	15,764	450	16,214	33,750	Yes
Source: MIG 2017					

b) **No Impact.** The proposed project could result in significant impacts if it conflicts with the Riverside County Congestion Management Program (CMP) through reducing the Level of Service of a non-exempt segment to fall to "F". If LOS for a non-exempt segment is reduced to "F", a deficiency plan outlining specific mitigation measure and a schedule for mitigating the deficiency will be required. The nearest affected CMP designated highway is SR-60. There are no CMP designated arterials within the project vicinity. A traffic study was not required because the proposed project would result in less than 50 peak hour trips; therefore, impact on CMP designated freeways and roadways would not occur.

c) **No Impact.** A significant impact would occur if the proposed project caused a change in air traffic patterns that would result in a substantial safety risk. The project site is not located within an airport land use plan and does not include any structures that would change air traffic patterns or uses that would generate air traffic. Therefore, no impacts related to a change in air traffic patterns would occur.

d) **No Impact.** A significant impact would occur if the proposed project substantially increased an existing hazardous design feature or introduced incompatible uses to the existing traffic pattern. Access to the project site is proposed via Sunnymead Boulevard. The design of the proposed project would comply with all applicable City regulations. Furthermore, the proposed project does not involve changes in the alignment of Sunnymead Boulevard or SR-60 and the proposed car wash is consistent with existing commercial and auto care uses adjacent to the project site on the west. The proposed project would not result in a traffic safety hazard due to any design features. No impact would occur.

e) **Less than Significant Impact.** A significant impact would occur if the design of the proposed project would not satisfy emergency access requirements of the Riverside County Fire Department or in any other way threaten the ability of emergency vehicles to access and serve the project site or adjacent uses. The proposed project would not result in inadequate emergency access. As discussed above, access to the project site is proposed via Sunnymead Boulevard. The driveway width, 36 feet (with an entrance of 20 feet and exit of 16 feet), is sufficient to provide access to fire and emergency vehicles and is consistent with the California Fire Code requiring a minimum of 20 feet. All access features are subject to and must satisfy the City of Moreno Valley design requirements, including the Fire Department's requirements. This project would not result in adverse impacts with regard to emergency access.

f) **Less than Significant Impact.** Public bus transit service in the project vicinity is currently provided by the Riverside Transit Agency Route 11. Route 11 stops along a loop route to include the following stops: Moreno Valley Mall, Perris & Hemlock, Alessandro & Heacock, Meyer & 6th, and Frederick & Alessandro.[41] The proposed project would not conflict with or decrease the performance or safety of these services. Impacts would be less than significant.

4.17 – 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 Cultural Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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), or	☐	☑	☐	☐
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.	☐	☑	☐	☐

a -b) **Less than Significant Impact with Mitigation Incorporated.** Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to a defined Tribal Cultural Resources (TCR) may result in a significant effect on the environment. AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining if a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. The lead agency is then required to notify the tribe within 14 days of deeming a development application subject to CEQA complete to notify the requesting tribe as an invitation to consult on the project. AB 52 identifies examples of mitigation measures that will avoid or minimize impacts to TCR. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of intent to adopt a negative declaration/mitigated negative declaration circulated on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

The City of Moreno Valley initiated AB 52 consultation for the proposed project. Three letters were received in response and are summarized below:

- Agua Caliente Band of Cahuilla Indians (ACBCI) – The project site is not located within the boundaries of the ACBCI Reservation, but is located within the Tribe's Traditional Use Area. Therefore, the Tribe has requested copies of the cultural resource inventory, documentation, and records search results.
- Soboba Band of Luiseño Indians – The Tribe has requested the initiation of formal consultation with the City of Moreno Valley and is currently ongoing as of May 2017.
- Pechanga Cultural Resources, Temecula Band of Luiseño Mission Indians – The Tribe has requested the initiation of formal consultation with the City of Moreno Valley and is currently ongoing as of May 2017.

Despite the previous disturbances of the project site and developed nature of the project area that may have displaced or submerged archaeological resources relating to TCR's on the surface, it is possible that intact tribal cultural resources exist at depth. Due to this uncertainty, Mitigation Measures CR-1 through CR-9 have been incorporated to address any previously undiscovered archaeological resources relating to TCR's encountered during project implementation. Incorporation of these mitigation measures would ensure that potential impacts to buried TCRs are less than significant through requirements for evaluation, salvage, curation, and reporting.

Mitigation Measures

CR-1 Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The Project archeologist and the Consulting Tribes(s) as defined in CR-1 shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;

c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

CR-2 Prior to the issuance of a grading permit, the City of Moreno Valley shall secure agreements with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The City is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

CR-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.

ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CR-1.

CR-4 The City shall verify that the following note is included on the Grading Plan:
"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

CR-5 The Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

CR-6 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

CR-7 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

CR-8 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

CR-9 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-1 before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

4.18 – Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☑	☐
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 significant environmental effects?	☐	☐	☑	☐
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?	☐	☐	☑	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☐	☑

a) **Less than Significant Impact.** The proposed project could affect Regional Water Quality Control Board treatment standards by increasing wastewater production such that expansion of existing facilities or construction of new facilities would be required. Exceeding the RWQCB treatment standards could result in contamination of surface or groundwater with pollutants such as pathogens and nitrates.

New development in the City is required to install wastewater infrastructure concurrent with project development. Wastewater service in the City is provided by the Eastern Municipal Water District (EMWD) for maintenance of local sewer lines that collect wastewater generated in the City. All wastewater generated by the interior plumbing system of the proposed project would be discharged into the local sewer main and conveyed for treatment at the Moreno Valley Regional

Water Reclamation Facility (MVRWRF). The MVRWRF has the capacity to treat 16 million gallons of wastewater per day (mgd) and the capacity to expand to 41 mgd. As of October 2016, the typical daily flow at MVRWRF is 10.6 mgd with the ability to divert approximately two mgd to the Perris Facility.[42] Wastewater flows associated with the proposed project would consist of the same kinds of substances typically generated by commercial uses and no modifications to any existing wastewater treatment systems or construction of any new ones would be needed to treat this project's wastewater. Water use for the car wash was conservatively estimated at 20 gallons per vehicle based on estimates provided by the Applicant. Number of vehicles washed was estimated at 450 daily. With a resulting total of 164,250 vehicles washed annually, total water demand is estimated at 3,285,000 gallons per year (9,000 gpd). Interior water use is estimated at 773 gpd and outdoor water use for landscaping is estimated at 572 gpd. Wastewater is typically estimated to be 80 percent of total water use. Therefore, estimated wastewater generation from interior demand and outdoor irrigation demand is 8,276 gpd.

Total estimated wastewater generation to be conveyed to MVRWRF is estimated at 8,276 gpd. This volume is within the remaining capacity of the MVRWRF's 16 mgd total treatment capacity. This project would thus have a less-than-significant impact on the ability of the MVRWRF to operate within its established wastewater treatment requirements, which are enforced via the facility's NPDES permit authorized by the Santa Ana Regional Water Quality Control Board (SARWQCB). Therefore, the project would have a less than significant impact related to wastewater treatment requirements of the SARWQCB.

b) **Less than Significant Impact.** The Eastern Municipal Water District (EMWD) would supply water to the project. Water is imported via the California Aqueduct from northern and central California, which is managed by the Metropolitan Water District of Southern California (MWD). A secondary source of imported water is provided by the Colorado Rivers Aqueduct. Water Code § 10910-10915 require the preparation of a water supply assessment (WSA) demonstrating sufficient water supplies for any subdivision that involves the construction of more than 500 dwelling units, or the equivalent thereof. As the project is below the established thresholds, no WSA is required.

According to the 2015 Urban Water Management Plan for EMWD, EMWD will continue to rely on imported water from MWD as the main source of supply. The water used within the EMWD service area as of 2015 was approximately 147,300 AFY and is expected to increase to 268,200 AFY (during a normal year) by the year 2040, an increase of 120,900 AFY.[43] Based on the CalEEMod assumptions, the proposed project's estimated water demand is approximately 11.6 AFY, within the estimated increase in water demand. According to the 2015 Urban Water Management Plan for EMWD, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water.[44] Local supplies would supplement imported supplies and provide additional supply reliability. Local supplies include groundwater pumped from the San Jacinto groundwater Basin, desalinated groundwater, and recycled water.

The UWMP is based on area population projections as provided by SCAG. As discussed in Section 4.13, the proposed project is consistent with SCAG projections for the service area. As the estimated increase in water use is within the anticipated increase in the UWMP and the project is consistent with regional population projections, impacts would be less than significant.

Regarding wastewater facilities, as discussed in the preceding response, wastewater generated at the project site is treated at the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The proposed project is estimated to have a wastewater generation of approximately 8,276 gpd. This generation is well within the existing remaining treatment capacity of the MVRWRF. Therefore, the expansion of the existing facility would not be required.

Connections to local water and sewer mains would involve temporary and less than significant construction impacts that would occur in conjunction with other on-site improvements. The project site is located within the existing service area of EMWD and is surrounded by existing development that is currently connected to existing EMWD water and wastewater lines. No additional improvements are needed to either water lines, sewer lines, or treatment facilities to serve the proposed project. Standard connection fees would address any incremental impacts of the proposed project. Therefore, the proposed project would result in less than significant impacts as a result of new or expanded wastewater treatment facilities.

c) **Less than Significant Impact.** Potentially significant impacts could occur as a result of this project if storm water runoff was increased to a level that would require construction of new storm drainage facilities. As discussed in the Hydrology section, the proposed project would not generate any increased runoff from the site that would require construction of new storm drainage facilities. A NPDES permit would be required for the proposed project and, pursuant to Municipal Code Section 8.21.170, all construction projects shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP). Best Management Practices (BMPs) that include drainage controls such as detention ponds, dikes, filter berms, and downdrains to prevent runoff, and utilizing plastic covering to prevent erosion shall also be applied. Implementation of BMPs would reduce pollutants in stormwater and urban runoff from the project site. The proposed storm drainage system and BMPs must be designed to the satisfaction of the City's Public Works Director and in conformance with all applicable permits and regulations. The project applicant/developer would be required to provide all necessary on-site infrastructure. Impacts would be less than significant, and no mitigation beyond compliance with existing regulations is required. The project would have a less than significant impact on requiring the construction of new facilities or expansion of existing storm drainage facilities.

d) **Less than Significant Impact.** The proposed project could result in significant impacts if it required additional water supplies than are currently entitled. Water demand is provided by survey data utilized in the CalEEMod air quality model. Water demand is estimated at 3,776,283 gallons per year or 11.6 AFY. This number represents a conservative estimate because the proposed car wash would also utilize recycled water for car wash needs. The proposed project includes five 1,500-gallon underground storage tanks to store recycled water (capacity of 7,500 gallons).

Water demand within the EMWD service area is anticipated to increase by 120,900-acre feet per year (AFY) between 2015 and 2040. The proposed project's conservative estimated water demand, 11.6 AFY, is well within anticipated increase in demand. Based on the EMWD 2015 UWMP, there are sufficient water supplies to meet the proposed project's estimated water demand and long-term demand. The proposed project would not substantially deplete water supplies, and therefore would have a less than significant impact on entitled water supplies.

As summarized above, the 2015 UWMP indicates that there is adequate supply to serve the projected demand. The proposed project would comply with all water conservation and efficiency standards required by the Moreno Valley Public Works Department. Therefore, there are sufficient water supplies to meet the project's estimated water demand and long-term demand. The proposed project would not substantially deplete water supplies, and it would have a less than significant impact on entitled water supplies.

e) **Less than Significant Impact.** As detailed in Sections 4.17.a and 4.17.b, the proposed project would be adequately served by existing facilities. Therefore, a less than significant impact would occur.

f) **Less than Significant Impact.** Significant impacts could occur if the proposed project would exceed the existing permitted landfill capacity or violates federal, state, and local statutes and regulations. Compliance with County waste reduction programs and policies would reduce the volume of solid waste entering landfills. Individual development projects within the County would be required to comply with applicable state and local regulations, thus reducing the amount of landfill waste by at least 50 percent. The proposed project would increase the volume of solid waste generated in the County by 19.5 tons per year. According to CalRecycle, solid waste facilities serving Riverside County are projected to have a combined annual disposal limit of 3,633,512 tons and an annual remaining lifetime capacity surplus of 154,709,576 tons in the year 2025.[45] Combined remaining capacities at the landfills would be adequate to accommodate the proposed project. Impacts related to sufficient landfill capacity are anticipated to be less than significant.

g) **No Impact.** The proposed project is required to comply with all applicable federal, state, County, and City statutes and regulations related to solid waste as a standard project condition of approval. Therefore, no impact would occur.

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4.19 – Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable?	☐	☑	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☑	☐	☐

a) **Less than Significant with Mitigation Incorporated.** The proposed project would not substantially impact any scenic vistas, scenic resources, or the visual character of the area, as discussed in Section 4.1 and would not result in excessive light or glare. The project site is located within a developed area with no natural habitat. The proposed project would not significantly impact any sensitive plants, plant communities, fish, wildlife or habitat for any sensitive species with mitigation incorporated. Construction-phase mitigation would be implemented to reduce potential impacts to burrowing owls and nesting birds to less-than-significant levels. There would be no impact to migratory birds. Adverse impacts to historic resources would not occur. Construction-phase procedures would be implemented in the event any important cultural, archaeological, or paleontological resources are discovered during grading, consistent with Mitigation Measures C-1 through C-5. This site is not known to have any association with an important example of California's history or prehistory. The environmental analysis provided in Section 4.3 concludes that impacts related to emissions of criteria pollutants and other air quality impacts would be less than significant. Sections 4.7 and 4.9 conclude that impacts related to climate change and hydrology and water quality would be less than significant. Based on the preceding analysis of potential impacts in the responses to items 4.1 thru 4.17, no evidence is presented that this proposed project would degrade the quality of the environment. Impacts related to degradation of the environment, biological resources, and cultural resources would be less than significant with mitigation incorporated.

b) **Less than Significant with Mitigation Incorporated.** Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long term, due to the permanent land use changes and operational characteristics involved with the proposed project. Cumulative impacts would be less than significant with mitigation incorporated, as further discussed herein.

Aesthetics
Impacts related to aesthetics at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Agricultural Resources
The analysis provided in Sections 4.2 found that no individual impacts would occur; therefore, the project could not contribute considerably to local agricultural or forestry.

Air Quality
The analysis provided in Section 4.3 related to air quality found that impacts would be less than significant without the need for mitigation; therefore, the project would not contribute to localized or regional cumulative impacts.

Biological Resources
The analysis provided in Section 4.4 found that no individual impacts to sensitive species or migratory birds would occur; therefore, the project could not contribute considerably to regional impacts on such species. To reduce potential impacts to burrowing owls and nesting birds, Mitigation Measures BIO-1 through BIO-3 have been incorporated. The project would have no other impacts on biological resources and would not result in localized or regional cumulative impacts.

Cultural Resources
Loss of on-site archaeological resources could reduce or eliminate important information relevant to the County of Riverside and the City of Moreno Valley. Impacts related to cultural resources were found to be potentially significant and require mitigation to reduce to less than significant levels; therefore, the project could contribute considerably to significant localized cumulative impacts in this topic area. Mitigation Measures CR-1 through CR-4 have been incorporated to reduce impacts to archaeological resources, Mitigation Measure CR-5 has been incorporated to reduce impacts to paleontological resources, and Mitigation Measure CR-9 has been incorporated to reduce impacts to human remains. Implementation of Mitigation Measures CR-1 through CR-9 would eliminate any potential loss of important local archaeological, and paleontological information or human remains that may be buried under the project site; therefore, the proposed project would have no contribution to a cumulative loss of important local or regional archaeological knowledge.

Geology and Soils
Impacts related to geology at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Greenhouse Gas Emissions
As discussed in Section 4.7, climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. The project would not contribute considerably to global climate change.

Hazardous Materials
The analysis provided in Section 4.8 related to hazards and hazardous materials found that impacts would be less than significant. Compliance with all regulations related to the disposal and storage of household hazardous waste would ensure that impacts would be less than significant.

Airport Hazards
Impacts related to airport hazards at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Wildfires

The analysis provided in Section 4.8(h) found that no individual, local, or regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

Groundwater Levels

The analysis provided in Section 4.9 (b) found that less than significant local, or regional impacts would occur; therefore, while the project would contribute to individual, localized or regional cumulative impacts, the project contribution would not be considerable.

Drainage/Water Quality

The analysis provided in Section 4.9 (a), (c), (d), (e) and (f), found that less than significant individual, local, or regional impacts would occur; therefore, while the proposed project would contribute to individual, localized or regional cumulative impacts, its contribution would not be considerable.

Flooding

The analysis provided in Section 4.9 (g), (h), and (i), found that no regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

Land Use and Planning

The analysis provided in Section 4.10 related to Land Use and Planning found that impacts would be less than significant; therefore, while the proposed project would contribute to individual, localized or regional cumulative impacts, its contribution would not be considerable.

Mineral Resources

The analysis provided in Section 4.11 related to mineral resources found that there would be no impact; therefore, while the project would contribute to localized or regional cumulative impacts, the project contribution would not be considerable.

Noise

Due to the location of the project adjacent to SR-60, on-site operational noise, as discussed in Section 4.12, is not anticipated to result in perceptible increases in ambient noise. Therefore, the proposed project would not contribute considerably to noise levels in the immediate vicinity of the project. The project would contribute to temporary increases in noise levels in the immediate project vicinity during construction activities; however, Mitigation Measure N-1 would be incorporated to minimize construction-related noise and therefore the project's contribution would not be considerable. Mitigation Measure N-2 would ensure that a soundwall is installed to mitigate noise impacts on nearby receptors from noise associated with car wash equipment. The project would increase traffic in the project area; however, project traffic-related noise would not be discernible (as discussed in Section 4.12.C) to the public and therefore would have no considerable contribution to cumulative traffic-related noise.

Population and Housing

The analysis provided in Section 4.13 related to Population and Housing found that no impacts would result; therefore, no cumulative impacts related to this topic would occur.

Public Services

The analysis provided in Section 4.14 related to Public Services found that impacts would be less than significant; therefore, while the proposed project would contribute to localized cumulative impacts, the contribution would not be cumulatively considerable.

Recreation

The analysis provided in Section 4.15 related to Recreation found that no impacts would result; therefore, no cumulative impacts related to this topic would occur.

Traffic and Transportation

Traffic conditions were analyzed in Section 4.16.a and found to be less than significant. There is and would be adequate capacity to serve the uses along Sunnymead Boulevard with the addition of the proposed project. Impacts to regional transportation facilities are analyzed in Section 4.16.b. The proposed project would have no impact on regional (Congestion Management Program) facilities in the project area. The proposed project's contribution to cumulative impacts to local and regional transportation facilities would not be considerable.

Tribal Cultural Resources

The analysis provided in Section 4.17 related to Tribal Cultural Resources identified that despite the previous disturbances of the project site and developed nature of the project area that may have displaced or submerged archaeological resources relating to TCR's on the surface, it is possible that intact tribal cultural resources exist at depth. Due to this uncertainty, Mitigation Measures CR-1 through CR-9 have been incorporated to address any previously undiscovered archaeological resources relating to TCR's encountered during project implementation. Incorporation of these mitigation measures would ensure that potential impacts to buried TCRs are less than significant through requirements for evaluation, salvage, curation, and reporting.

Utilities and Service Systems

The analysis provided in Section 4.18 related to Utilities and Service Systems found that impacts would be less than significant; therefore, while the project would contribute to localized or regional cumulative impacts, the project contribution would not be considerable.

c) **Less than Significant with Mitigation Incorporated.** Based on the analysis of the project's impacts in the responses to items 4.1 thru 4.18, there is no indication that this project could result in substantial adverse effects on human beings. While there would be a variety of temporary adverse effects during construction related to noise these would be reduced to less than significant levels through mitigation. Long-term effects include increased vehicular traffic, traffic-related noise, use of household hazardous materials, emissions of criteria pollutants and greenhouse gas emissions, and increased demand on emergency response services. The analysis herein concludes that direct and indirect environmental effects would at worst require mitigation to reduce to less than significant levels. Environmental effects would result in less than significant impacts. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings would be less than significant with mitigation incorporated

5 Mitigation Summary

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following Mitigation Monitoring and Reporting Checklist in Table 14 has been prepared for the project. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented, 2) recordation of the actions taken to implement each mitigation, and 3) retention of records in the project file.

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Table 14
Mitigation Monitoring Checklist

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)		MONITORING			VERIFICATIO	
			Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	
BIOLOGICAL RESOURCES							
Potentially significant impacts on burrowing owl.	**BIO-1**	All project sites containing burrowing owl habitat or burrows (based on Step 1 – Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls.	Project Proponent	City	Prior to construction		
Potentially significant impacts on nesting birds.	**BIO-2**	To avoid impacts to nesting birds, construction activities and construction noise should occur outside the avian nesting season (February 1 to September 1). If construction occurs within the avian nesting season, all suitable habitats shall be thoroughly surveyed for the presence of nests by a qualified biologist no more than five days prior to commencement of any soil disturbance or vegetation removal. If it is determined that the project site is occupied by nesting birds, Mitigation Measure BIO-3 would reduce impacts to less than significant levels.	Project Proponent	City	Prior to construction		

Mitigation Summary

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIC
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
Potentially significant impacts on nesting birds.	**BIO-3** If pre-construction nesting bird surveys locate active nests, no construction-related activities shall "take" place within 300 feet of sensitive bird nests and 500 feet of raptor nests, or as determined by a qualified biologist. Protective measures (e.g., sampling) shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements.	Project Proponent	City	During construction	
CULTURAL AND HISTORIC RESOURCES					

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
In the event of the unanticipated discovery of archaeological or cultural resources relating to Tribal Cultural Resources during earthmoving operations.	**CR-1** Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include: a. Project grading and development scheduling; b. The Project archeologist and the Consulting Tribes(s) as defined in CR-1 shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;	Project Proponent	City	Prior to and During construction	

Mitigation Summary

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIC
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
	c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.				
In the event of the unanticipated discovery of archaeological or cultural resources relating to Tribal Cultural Resources during earthmoving operations.	**CR-2** Prior to the issuance of a grading permit, the City of Moreno Valley shall secure agreements with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The City is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.	Project Proponent	City	Prior to and During construction	

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
In the event of the unanticipated discovery of archaeological or cultural resources relating to Tribal Cultural Resources during earthmoving operations.	**CR-3** In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources. ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CR-1.	Project Proponent	City	Following construction	
In the event of the unanticipated discovery of Tribal Cultural Resources during earthmoving operations.	**CR-4** The City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Project Proponent	City	Prior to and During construction	
In the event of the unanticipated discovery of paleontological resources during earthmoving operations.	**CR-5** The Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.	Project Proponent	City	Prior to construction	

Mitigation Summary

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
In the event of the unanticipated discovery of paleontological resources during earthmoving operations.	**CR-6** The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.	Project Proponent	City	Prior to construction	
In the event of the unanticipated discovery of paleontological resources during earthmoving operations.	**CR-7** Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.	Project Proponent	City	During construction	
In the event of the unanticipated discovery of paleontological resources during earthmoving operations.	**CR-8** A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.	Project Proponent	City	After construction	

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
In the event of the unanticipated discovery of paleontological resources during earthmoving operations. In the event of the unanticipated discovery of human remains.	**CR-9** If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-1 before any further work commences in the affected area. If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).	Project Proponent	City	During construction	
NOISE					

Mitigation Summary

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
Construction activities would temporarily increase the ambient noise levels in the project area.	**N-1** The following measures are required to ensure that project-related short-term construction noise levels are reduced to less-than-significant levels. Prior to issuance of demolition permits, a noise mitigation plan verifying that compliance with the following measures would reduce construction noise to within the allowable levels of 65 dBA for commercial uses. Should construction noise exceed allowable levels after implementation of the following measures, the use of sound curtains or other noise barriers shall be required. The noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise to within allowable levels. ▪ Stationary construction noise sources such as generators or pumps must be located at least 100 feet from sensitive land uses, as feasible, or at maximum distance when necessary to complete work near sensitive land uses. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted noise monitor. Datasheets completed by the contracted construction noise monitor may be submitted to the Planning Official, or designee during routine inspections. ▪ Construction staging areas must be located as far from noise sensitive land uses as feasible. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted construction noise monitor, by the Planning Official or designee during routine inspections. ▪ Throughout construction, the contractor shall ensure all construction equipment is equipped with included noise attenuating devices and are properly maintained. This mitigation measure shall be periodically monitored by a contracted construction noise monitor, the Community Planning Official, or designee during routine inspections.	Project Proponent	City	Prior to and during construction	

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIO
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
	▪ Idling equipment must be turned off when not in use. This mitigation measure may be periodically monitored by a contracted construction noise monitor the Planning Official, or designee during routine inspections. ▪ Equipment must be maintained so that vehicles and their loads are secured from rattling and banging. This mitigation measure may be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.				
Potentially significant noise impacts from car wash equipment and traffic.	**N-2** The following measures are required to ensure that project-related operational noise levels are reduced to less-than-significant levels. • In order for operational noise levels to comply with the City's ordinance, the height of the tunnel entry and exit openings shall be limited to no more than 10 feet and the east wall of the tunnel shall extend 30 feet northward and southward at a height of 10 feet to provide adequate shielding and reduce property line sound levels to 65 dB. • In order to provide adequate of sound attenuation, two sound barrier walls will be constructed at the east side of the wash tunnel entry to the south and exit to the north. At a height of 10 feet, the sound barriers shall extend 30 feet northward from the northwest corner of the building and 30 feet southward from the southwest corner of the building at a height of 10 feet. The western surface of the extended wall at the south (entrance) shall be treated with outdoor sound absorbing material, such as IAC Noise-Foil panels. The material could be any impervious construction with a surface density of at least 2 pounds per square foot. The eastern face of both walls shall be treated with sound absorbing surface material with NRC 0.7 or greater. Along the west side of the site, the existing barrier will provide adequate shielding from the vacuum equipment to reduce levels to below 65 dB at the commercial/industrial uses and to well below 60 dB at the residences further west.	Project Proponent	City	Prior to and during construction.	
TRIBAL RESOURCES					

Mitigation Summary

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATIC
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature
In the event of the unanticipated discovery of archaeological or cultural resources relating to Tribal Cultural Resources (TCRs) during earthmoving operations. In the event of the unanticipated discovery of human remains.	**CR-9** If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-1 before any further work commences in the affected area. If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).	Project Proponent	City	Prior to and during construction	

6 References

6.1 – List of Preparers

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6.2 – Persons and Organizations Consulted

None

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Appendix A Air Quality and Greenhouse Gas Assessment

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Sunnymead Boulevard Car Wash

Air Quality and Climate Change Assessment
October 2017

1 Executive Summary

Construction- and operation-related emissions of criteria pollutants and toxic air contaminant emissions were modeled and analyzed for the proposed car wash (project) located on Sunnymead Boulevard, south of SR-60 and west of Heacock Street in the City of Moreno Valley, California.

Furthermore, this report analyzes the project's consistency with the South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP) for the South Coast Air Basin. Cumulative impacts were analyzed using the methodology provided by the 1993 SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook. Additionally, this report models and analyzes construction- and operation-related emissions of greenhouse gases from the proposed project. This analysis utilizes guidance provided in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper and the *Quantifying Greenhouse Gas Mitigation Measures* handbook. Modeling of emissions utilizes the California Emissions Estimator Model (CalEEMod) v 2016.3.1.

1.1 Project Description

The project includes the development of a new car wash facility on 1.68 acres of vacant land (APN 292-160-023) on Sunnymead Boulevard, south of State Route 60 and west of Heacock Street in the City of Moreno Valley, California. The car wash consists of one automated tunnel and a small associated building. The facility includes two large canopies under which patrons may park to vacuum their vehicles. Thirty-nine total parking spaces will be provided, including two Americans with Disabilities Act (ADA) parking stalls and two clean air stalls. Approximately 15,000 square feet of landscaping will be provided.

1.2 Air Quality

The project will not result in substantial emissions of oxides of nitrogen, volatile organic compounds, or particulate matter and would not exceed the regional growth assumptions used in the Air Quality Management Plan (AQMP). The project will not individually cause or cumulatively contribute to an air quality standard violation. Emissions of carbon monoxide and the effects of localized criteria pollutant emissions will not substantially impact sensitive receptors in vicinity of the project. The project will not expose a substantial number of people to odors.

1.3 Climate Change

Greenhouse gas emissions will not exceed the annual 3,000 metric ton carbon dioxide equivalent threshold established by the South Coast Air Quality Management District and will not conflict with state greenhouse gas emissions strategies.

2 Introduction

This report models and analyzes construction- and operation-related emissions of criteria air pollutants, toxic air contaminants, and greenhouse gas emissions from the proposed car wash facility. The project includes several car vacuuming stations and associated canopy on 1.68 acres in Moreno Valley, California.

The air quality analysis provided herein utilizes guidance provided in the South Coast Air Quality Management District (SCAQMD) the 1993 California Environmental Quality Act (CEQA) Air Quality handbook as amended and supplemented (http://www.aqmd.gov/ceqa/hdbk.html). Pollutant emissions were modeled by utilizing the following:

- California Emissions Estimator Model (CalEEMod) v 2016.3.1

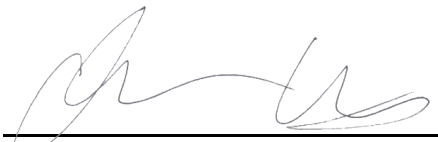
The climate change analysis provided herein utilizes guidance provided in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper and the *Quantifying Greenhouse Gas Mitigation Measures* handbook. Modeling of greenhouse gas emissions utilizes the California Emissions Estimator Model (CalEEMod) v 2016.3.1.

This report has been prepared utilizing project-specific characteristics where available. In those instances where project-specific data is not available, the analysis has been supplemented by model defaults or other standardized sources of comparable data. In any case where non-project defaults or other data have been used, a "worst-case" scenario was developed to ensure a conservative estimate of emissions.

This report has been prepared for use by the Lead Agency to assess potential project-related air quality impacts in compliance with the State CEQA Statutes and Guidelines, particularly in respect to the air quality issues identified in Appendix G of the State CEQA Guidelines. This report does not make determinations of significance pursuant to CEQA because such determinations are required to be made solely in the purview of the Lead Agency.

This document has been reviewed in accordance with the *Table 7-2, Checklist for an Air Quality Analysis Section* of the SCAQMD Air Quality Handbook for quality control purposes.

This report was prepared by Christopher Brown (Director of Environmental Services) and Hayden Agnew-Wieland (Assistant Analyst) of MIG, Inc. under contract by Tri Millennium Properties.



Christopher Brown
Director of Environmental Services

Hayden Agnew-Wieland
Assistant Analyst

3 Environmental Setting

3.1 Climate

The project is located in the City of Moreno Valley. The City of Moreno Valley and the broader Inland Empire are defined by a semi-arid, Mediterranean climate with mild winters and warm summers. Annual rainfall averages 10 inches with the rainy season occurring during the winter.[1] The coolest month of the year is December with an average monthly low of 41.3° Fahrenheit (F). The warmest month is August with an average monthly high of 94.4° F. Moreno Valley is located at an elevation of approximately 1,631 feet above mean sea level (AMSL). The project site is located at an approximate elevation of 1,643 AMSL.[2] Wind generally blows from the west.[3]

3.2 Regional Air Quality

The proposed car wash is located within the South Coast Air Basin (Basin).[4] The Basin includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The Basin is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east that trap ambient air and pollutants within the Los Angeles and Inland Empire valleys below. The Basin is managed by the South Coast Air Quality Management District (SCAQMD). Pursuant to the California Clean Air Act (CCAA), SCAQMD is responsible for bringing air quality within the Basin into conformity with federal and state air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with federal, state, and local agencies to reduce pollutant emissions from stationary, mobile, and indirect pollutant sources through the development of rules and regulations.

Both California and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as *criteria pollutants*). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead (Pb). The State has also established AAQS for the additional pollutants of visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the State and Federal standards differ, State AAQS are more stringent than Federal AAQS. Federal and State standards are shown in Table 1 (Ambient Air Quality Standards). A brief description of each criteria pollutant is provided herein.

Ozone. Ozone is a pungent, colorless, and highly reactive gas that forms from the atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight. Ozone is most commonly associated with smog. Ozone precursors such as reactive organic gases (ROG) and oxides of nitrogen (NO_X) are released from mobile and stationary sources. Ozone is a respiratory irritant and can cause cardiovascular diseases, eye irritation, and impaired cardiopulmonary function. Ozone cause also damage building materials and plant leaves.

Carbon Monoxide. Carbon monoxide is primarily emitted from vehicles due to the incomplete combustion of fuels. Carbon monoxide has wide ranging impacts on human health because it combines with hemoglobin in the body and reduces the amount of oxygen transported in the bloodstream. Carbon monoxide can result in reduced tolerance for exercise, impairment of mental function, impairment of fetal development, headaches, nausea, and death at high levels of exposure.

Nitrogen Dioxide. Nitrogen dioxide and other oxides of nitrogen (NO_X) contribute to the formation of smog and results in the brownish haze associated with it. They are primarily emitted from motor vehicle exhaust but can be omitted from other high-temperature stationary sources. Nitrogen oxides can aggravate respiratory illnesses, reduce visibility, impair plant growth, and form acid rain.

Particulate Matter. Particulate matter is a complex mixture of small-suspended particles and liquid droplets in the air. Particulate matter between ten microns and 2.5 microns is known as PM_{10}, also known as coarse or inhalable particulate matter. PM_{10} is emitted from diverse sources including road dust, diesel soot, combustion products, abrasion of tires and brakes, construction operations, and windstorms. PM_{10} can also be formed secondarily in the atmosphere when NO_2 and SO_2

react with ammonia. Particulate matter less than 2.5 microns in size are called $PM_{2.5}$ or fine particulate matter. $PM_{2.5}$ is primarily emitted from point sources such as power plants, industrial facilities, automobiles, wood-burning fireplaces, and construction sites. Particulate matter is deposited in the lungs and cause permanent lung damage, potentially resulting in lung disease and respiratory symptoms like asthma and bronchitis. Particulate matter has also been linked to cardiovascular problems such as arrhythmia and heart attacks. Particulate matter can also interfere with the body's ability to clear the respiratory tract and can act as a carrier of absorbed toxic substances. Particulate matter causes welfare issues because it scatters light and reduces visibility, causes environmental damage such as increasing the acidity of lakes and streams, and can stain and damage stone, such as that applied in statues and monuments.

Sulfur Dioxide. Sulfur dioxide and other oxides of sulfur (SO_X) are reactive gases emitted from the burning of fossil fuels, primarily from power plants and other industrial facilities.[5] Other less impacting sources include metal extraction activities, locomotives, large ships, and off-road equipment. Human health impacts associated with SO_X emissions include bronchoconstriction and increased asthma symptoms.

Lead. Lead is primarily emitted from metal processing facilities (i.e. secondary lead smelters) and other sources such as manufacturers of batteries, paints, ink, ceramics, and ammunition. Historically, automobiles were the primary sources before lead was phased out of gasoline. The health effects of exposure to lead include gastrointestinal disturbances, anemia, kidney diseases, and potential neuromuscular and neurologic dysfunction. Lead is also classified as a probable human carcinogen.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		-		
Fine Particulate Matter($PM_{2.5}$)[8]	24 Hour	-	-	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/ m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	-	Non-Dispersive Infrared Photometry (NDIR) -
	8 Hour	9.0 ppm (10mg/m^3)		9 ppm (10 mg/m^3)	-	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/ m^3)		-	-	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	-	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) -
	3 Hour	-		-	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	-	
	Annual Arithmetic Mean	-		0.030 ppm (for certain areas)[10]	-	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	-	-	High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average[10]	-		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: ARB October 2015
PPM: parts per million
µg/m3: micrograms per cubic meter
Footnotes available at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

3.3 Non-Attainment Status

Air pollution levels are measured at monitoring stations located throughout the Basin. Areas that are in nonattainment with respect to criteria pollutants are required to prepare plans and implement measures that will bring the region into attainment.

Table 2 (South Coast Air Basin Attainment Status) summarizes the attainment status in the Basin for the criteria pollutants. The Basin is currently in nonattainment status for ozone and inhalable and fine particulate matter.

Pollution problems in the Basin are caused by emissions within the area and the specific meteorology that promotes pollutant concentrations. Emissions sources vary widely from smaller sources such as individual residential water heaters and short-term grading activities to extensive operational sources including long-term operation of electrical power plants and other intense industrial use. Pollutants in the Basin are blown inward from coastal areas by sea breezes from the Pacific Ocean and are prevented from horizontally dispersing due to the surrounding mountains. This is further complicated by atmospheric temperature inversions that create inversion layers. The inversion layer in Southern California refers to the warm layer of air that lies over the cooler air from the Pacific Ocean. This is strongest in the summer and prevents ozone and other pollutants from dispersing upward. A ground-level surface inversion commonly occurs during winter nights and traps carbon monoxide emitted during the morning rush hour.

Table 2
South Coast Air Basin Attainment Status

Pollutant	Federal	State
O_3 (1-hr)	--	Nonattainment
O_3 (8-hr)	Nonattainment	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Nonattainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Nonattainment
VRP	--	Unclassified
SO_4	--	Attainment
H_2S	--	Unclassified
Sources: ARB 2015		

3.4 Local Air Quality

The City of Moreno Valley is located within the Perris Valley air monitoring area (Area 24). The project site is located in Source Receptor Area (SRA) 24. Air quality in SRA 24 is monitored at SCAQMD Monitoring Station No. 4169. Air monitoring results for these areas over the last three years of available data is summarized in Table 3 (2013-2015 Local Air Quality).[6] [7] [8] Table 4 (2013-2015 Air Quality Standards Exceedance) summarizes the number of days for each monitoring year that air quality standards were exceeded. This information is presented as a percentage, rather than discrete number of days, reflecting discrepancies in the number of days reporting between years and different criteria pollutants – and thus allowing for direct comparison. As you can see, several common criteria pollutants are not measured at the Perris Valley Station. Nonetheless, valuable data for ozone and PM_{10} are provided. Based on the most recent air quality monitoring data (2015), the area experienced ozone pollution with a minimum of 25 days of O_3 samples that year that exceeded the State standard 1-hour standard.

Table 3
2013-2015 Local Air Quality

Monitoring Station	CO		O_3 (PPM)		NO_2 (PPM)		PM_{10} (µg/m³)		$PM_{2.5}$ (µg/m³)		Pb (µg/m³)		SO_4 (µg/m³)
	Max 1-hr	Max 8-hr	Max 1-hr	Max 8-hr	Max 1-hr	AAM	Max 24-hr	AAM	Max 24-hr	AAM	Max Month	Max Qtr	Max 24-hr
SRA 24 Perris Valley													
2015	--	--	0.124	0.102	--	--	74	30.3	--	--	--	--	3.6
2014	--	--	0.117	0.094	--	--	87	35.1	--	--	--	--	3.5
2013	--	--	0.108	0.090	--	--	70	33.6	--	--	--	--	3.4

Source: SCAQMD 2013-2015
-- pollutant not monitored
PPM, parts per million
µg/m3, micrograms per cubic meter
AAM, annual arithmetic mean

Table 4
2013-2015 Air Quality Standards Exceedance (Percentage of Days Monitored)

Monitoring Station	O_3 (PPM)			PM_{10} (µg/m³)	
	Fed* 8-hr	State 1-hr	State 8-hr	Fed 24-hr	State 24-hr
2015	7%	7%	14%	0%	5%
2014	11%	5%	18%	0%	13%
2013	10%	5%	17%	0%	18%

Source: SCAQMD 2013-2015
* 0.075 ppm

3.5 Sensitive Receptors

Some populations are more susceptible to the effects of air pollution than the population at large; these populations are defined as sensitive receptors. Sensitive receptors include children, the elderly, the sick, and the athletic. Land uses associated with sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The proposed facility is located in an area constituting a mix of retail uses, with some residential dwelling units sprinkled in as well. The nearest residential structure appears to be about 275 feet west of the project boundary.

3.6 Local Transportation

The proposed project is located on Sunnymead Boulevard, south of SR-60 and west of Heacock Street. Regional access to the car wash is provided by SR-60, with a freeway interchange occurring immediately north of the project site. Both Sunnymead Boulevard and Heacock Street have at least two lanes in each direction and are designated as Arterials in the City of Moreno Valley Traffic/Circulation Section.[9]

3.7 Odors

According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed car wash and vacuum station, in turn, do not produce odors that could affect a substantial number of people.

3.8 Climate Change

3.8.1 Defining Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affects the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term *climate change* is preferred over the term *global warming* because *climate change* conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it keeps the planet approximately 60° F warmer than without it. Emissions from human activities since the beginning of the industrial revolution (approximately 150 years) are adding to the natural greenhouse effect

by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

Greenhouse Gases

The greenhouse effect is caused by a variety of *greenhouse gases*. Greenhouse gases (GHGs) occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since the year 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. The primary GHGs are discussed below.[10]

Carbon Dioxide. CO_2 is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of carbon dioxide from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO_2 at the sea surface. Carbon dioxide is also released from plants during wildfires. Volcanic eruptions release a small amount of CO_2 from the Earth's crust.

Human activities that affect carbon dioxide in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels is the largest source of carbon dioxide emissions in the United States, accounting for approximately 85 percent of all equivalent emissions. Because of the fossil fuels used, the largest of these sources is electricity generation and transportation. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO_2. Emissions from onsite industrial activities also emit carbon dioxide such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.

Methane. Methane (CH_4) is emitted from human activities and natural sources. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause methane releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. It is estimated that 50 percent of global methane emissions are generated from human activities. Wetlands are the primary producers of methane in the world because the habitat is conducive to bacteria that produce methane during decomposition of organic material. Methane is produced from landfills as solid waste decomposes. Methane is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases methane. Releases from animal digestive processes at agricultural operations are the primary source of human-related methane emissions.

Nitrous Oxide. Anthropogenic (human) sources of nitrous oxide include agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N_2O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N_2O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of nitrous oxide, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.

High Global Warming Potential Gases. High global warming potential (GWP) gases (or fluorinated gases) are entirely manmade and are mainly used in industrial processes. HFCs, PFCs, and SF_6 are high GWP gases. These types of gases are used in aluminum production, semiconductor manufacturing, electric power transmission, magnesium production and processing, and in the production of hydrochlorofuorocarbon-22 (HCFC-22). High GWP gases are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons. Use of high GWP gases as substitutes for ozone-depleting substances is the primary use of these gases in the United States.

Water Vapor. It should be noted that water vapor is also a significant GHG in the atmosphere; however, concentration of water vapor in the air is primarily dependent on air temperature and cannot be influenced by humans.

GHGs behave differently in the atmosphere and contribute to climate change in different ways. Some gases have more potential to reflect infrared heat back towards the earth while some persist in the atmosphere longer than others. To equalize the contribution of GHGs to climate change, the Intergovernmental Panel on Climate Change (IPCC) devised a weighted

metric to compare all greenhouse gases to carbon dioxide.[11] The weighting depends on the lifetime of the gas in the atmosphere and its radiative efficiency. As an example, over a time horizon of 100-years, emissions of nitrous oxide will contribute to climate change 298 times more than the same amount of emissions of carbon dioxide while emissions of HFC-23 would contribute 14,800 times more than the same amount of carbon dioxide. These differences define a gas's GWP. Table 5 (Global Warming Potential of Greenhouse Gases) identifies the lifetime and GWP of select GHGs. The lifetime of the GHG represents how many years the GHG will persist in the atmosphere. The GWP of the GHG represents the GHG's relative potential to induce climate change as compared to carbon dioxide.

Carbon Sequestration

Carbon sequestration is the process by which plants absorb CO_2 from the atmosphere and store it in biomass like leaves and grasses. Agricultural lands, forests, and grasslands can all sequester carbon dioxide, or emit it. The key is to determine if the land use is emitting carbon dioxide faster than it is absorbing it. Young, fast-growing trees are particularly good at absorbing more than they release and are known as a "sink". Agricultural resources often end up being sources of carbon release because of soil management practices. Deforestation contributes to carbon dioxide emissions by removing trees, or carbon sinks, that would otherwise absorb CO_2. Forests are a crucial part of sequestration in some parts of the world, but not much in the United States. Another form of sequestration is geologic sequestration. This is a manmade process that results in the collection and transport of CO_2 from industrial emitters (i.e. power plants) and injecting it into underground reservoirs.

Table 5
Global Warming Potential (GWP) of Greenhouse Gases (GHG)

GHG	Lifetime (yrs)	GWP
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC-14	50,000	7,390
PFC-116	10,000	12,200
Sulfur Hexafluoride	3,200	22,800
Source: IPCC 2007		

3.8.2 Climate Change and California

Specific, anticipated impacts to California have been identified in the 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) through extensive modeling efforts.[12] General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevadas
- Some reduction in precipitation is likely by the middle of the century
- Sea-levels will rise up to an estimated 55 inches
- Extreme events such as heat waves, wildfires, droughts, and floods will increase
- Ecological shifts of habitat and animals are already occurring and will continue to occur

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections. The potential impacts of global climate change in California are detailed below.

Public Health and Welfare

Concerns related to public health and climate change include higher rates of mortality and morbidity, change in prevalence and spread of disease vectors, decreases in food quality and security, reduced water availability, and increased exposure to pesticides. These concerns are all generally related to increase in ambient outdoor air temperature, particularly in summer.

Higher rates of mortality and morbidity could arise from more frequent heat waves at greater intensities. Health impacts associated with extreme heat events include heat stroke, heat exhaustion, and exacerbation of medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Climate change would result in degradation of air quality promoting the formation of ground-level pollutants, particularly ozone. Degradation of air quality would increase the severity of health impacts from criteria and other air pollutants discussed in Section 4.3 (Air Quality). Temperature increases and increases in carbon dioxide are also expected to increase plant production of pollens, spores, and fungus. Pollens and spores could induce or aggravate allergic rhinitis, asthma, and obstructive pulmonary diseases.

Precipitation projections suggest that California will become drier over the next century due to reduced precipitation and increased evaporation from higher temperatures. These conditions could result in increased occurrences of drought. Surface water reductions will increase the need to pump groundwater, reducing supplies and increasing the potential for land subsidence.

Precipitation changes are also suspected to impact the Sierra snowpack (see *Water Management* herein). Earlier snow melts could coincide with the rainy season and could result in failure of the flood control devices in that region. Flooding can cause property damage and loss of life for those affected. Increased wildfires are also of concern as the State *dries* over time. Wildfires can also cause property damage, loss of life, and injuries to citizens and emergency response services.

Sea-level rises would also threaten human health and welfare. Flood risks will be increased in coastal areas due to strengthened storm surges and greater tidal damage that could result in injury and loss of property and life. Gradual rising of the sea will permanently inundate many coastal areas in the state.

Other concerns related to public health are changes in the range, incidence, and spread of infectious, water-borne, and food-borne diseases. Changes in humidity levels, distribution of surface water, and precipitation changes are all likely to shift or increase the preferred range of disease vectors (i.e. mosquitoes). This could expose more people and animals to potential for vector-borne disease.

Biodiversity and Habitat

Changes in temperature will change the livable ranges of plants and animals throughout the state and cause considerable stress on these species. Species will shift their range if appropriate habitat is available and accessible if they cannot adapt to their new climate. If they do not adapt or shift, they face local extirpation or extinction. As the climate changes, community compositions and interactions will be interrupted and changed. These have substantial implications on the ecosystems in the state. Extreme events will lead to tremendous stress and displacement on affected species. This could make it easier for invasive species to enter new areas, due to their ability to more easily adapt. Precipitation changes would alter stream flow patterns and affect fish populations during their life cycle. Sea level rises could impact fragile wetland and other coastal habitat.

Water Management

Although disagreement among scientists on long-term precipitation patterns in the State has occurred, it is generally accepted by scientists that rising temperatures will impact California's water supply due to changes in the Sierra Nevada snowpack. Currently, the State's water infrastructure is designed to both gather and convey water from melting snow and to serve as a flood control device. Snowpack melts gradually through spring warming into early summer, releasing an average of approximately 15 million acre-feet of water. The State's concern related to climate change is that due to rising temperatures, snowpack melt will begin earlier in the spring and will coincide with the rainy season. The combination of precipitation and snowmelt would overwhelm the current system, requiring tradeoffs between water storage and flood protection to be made. Reduction in reserves from the Sierra Nevada snowpack is troublesome for California and particularly for Southern California.

Approximately 75-percent of California's available water supply originates in the northern third of the state while 80 percent of demand occurs in the southern two-thirds. There is also concern is that rising temperatures will result in decreasing volumes from the Colorado River basin. Colorado River water is important to Southern California because it supplies water directly to Metropolitan Water District of Southern California. Water from the Colorado River is also used to recharge groundwater basins in the Coachella Valley.

Agriculture

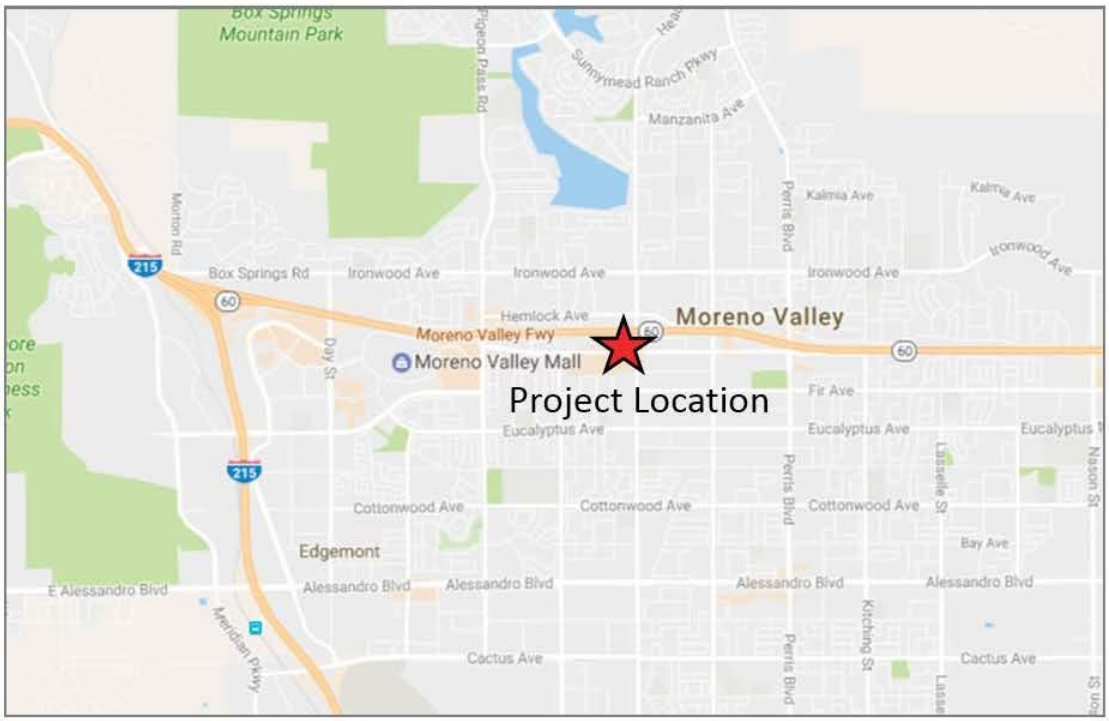
California is the most agriculturally productive state in the US resulting in more than 37 billion dollars in revenue in 2008. California is the nation's leading producer of nearly 80 crops and livestock commodities, supplying more than half of the nation's fruit and vegetables and over 90 percent of the nation's production of almonds, apricots, raisin grapes, olives, pistachios, and walnuts. Production of crops is not limited to the Central Valley but also occurs in Southern California. Strawberries and grapes are grown in San Bernardino and Riverside Counties. Orange County and San Diego County also contribute to strawberry production. Cherries are also grown in Los Angeles and Riverside County. Anticipated impacts to agricultural resources are mixed when compared to the potentially increased temperatures, reduced chill hours, and changes in precipitation associated with climate change. For example, wheat, cotton, maize, sunflower, and rice are anticipated to show declining yields as temperatures rise. Conversely, grapes and almonds would benefit from warming temperatures. Anticipated increases in the number and severity in heat waves would have a negative impact on livestock where heat stress would make livestock more vulnerable to disease, infection and mortality. The projected drying trend and changes in precipitation are a threat to agricultural production in California. Reduced water reliability and changes in weather patterns would impact irrigated farmlands and reduce food security. Furthermore, a drying trend would increase wildfire risk. Overall, agriculture in California is anticipated to suffer due to climate change impacts.

Forestry

Increases in wildfires will substantially impact California's forest resources that are prime targets for wildfires. This can increase public safety risks, property damage, emergency response costs, watershed quality, and habitat fragmentation. Climate change is also predicted to affect the behavior or plant species including seed production, seedling establishment, growth, and vigor due to rising temperatures. Precipitation changes will affect forests due to longer dry periods and moisture deficits and drought conditions that limit seedling and sapling growth. Prolonged drought also weakens trees, making them more susceptible to disease and pest invasion. Furthermore, as trees die due to disease and pest invasion (i.e. the Bark Beetle invasion of the San Bernardino Forest), wildfires can spread more rapidly.

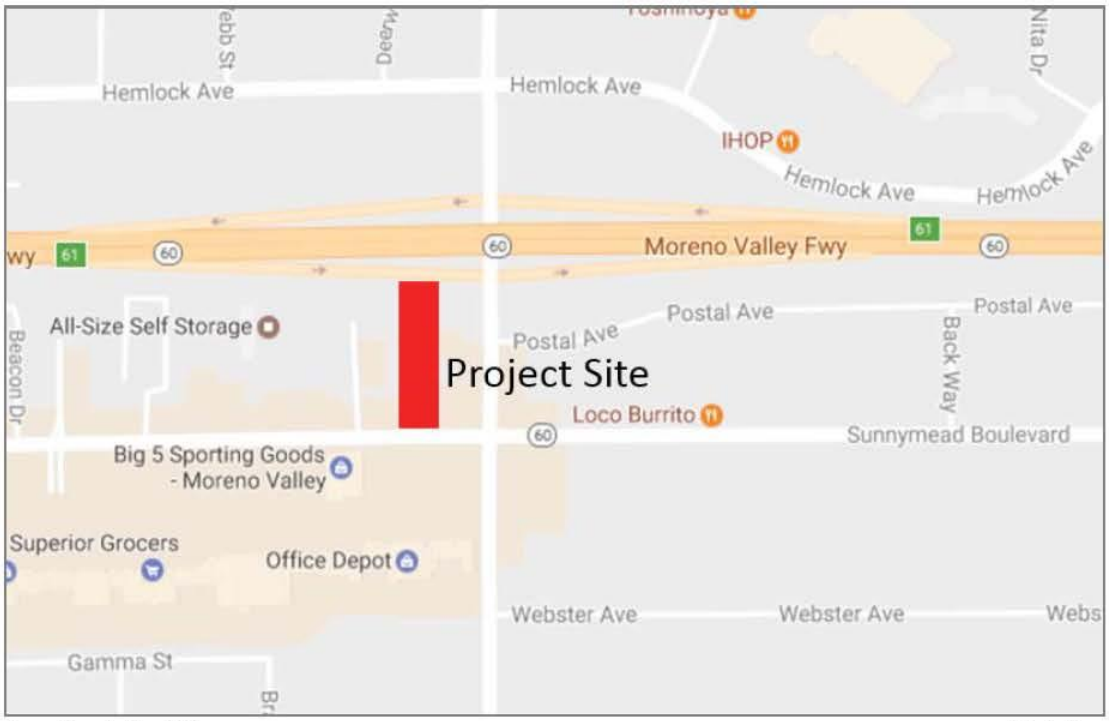
Transportation and Energy Infrastructure

Higher temperatures will require increased cooling, raising energy production demand. Higher temperatures also decrease the efficiency of distributing electricity and could lead to more power outages during peak demand. Climate changes would impact the effectiveness of California's transportation infrastructure as extreme weather events damage, destroy, and impair roadways and railways throughout the state causing governmental costs to increase as well as impacts to human life as accidents increase. Other infrastructure costs and potential impacts to life would increase due to the need to upgrade levees and other flood control devices throughout the state.



Source: Google Maps 2017

Regional



Source: Google Maps 2015

Vicinity

Not to Scale

Figure 1 Regional and Vicinity M

Sunnymead Boulevard Car Wash

City of Moreno Valley, R

4 Regulatory Framework

The following summarizes Federal, State, and local regulations related to air quality, pollution control, and greenhouse gas emissions.

4.1 Clean Air Act

The Federal Clean Air Act (CAA) defines the Environmental Protection Agency's (EPA) responsibilities for protecting and improving the United States air quality and ozone layer.[13] Key components of the CAA include reducing ambient concentrations of air pollutants that cause health and aesthetic problems, reducing emission of toxic air pollutants, and stopping production and use of chemicals that destroy the ozone.

Federal clean air laws require areas with unhealthy levels of ozone, inhalable particulate matter, Carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop State Implementation Plans (SIPs); comprehensive documents that identify how an area will attain NAAQS. Deadlines for attainment were established in the 1990 amendments to the CAA based on the severity of an area's air pollution problem. Failure to meet air quality deadlines can result in sanctions against the State or the EPA taking over enforcement of the CAA in the affected area. SIPs are a compilation of new and previously submitted plans, programs, district rules, and State and Federal regulations. The SCAQMD implements the required provisions of an applicable SIP through its AQMPs and updates. Currently, SCAQMD implements the 8-hr Ozone and $PM_{2.5}$ SIP in the 2007 AQMP and the PM_{10} SIP in the 2003 AQMP. The $PM_{2.5}$ SIP is currently being revised by SCAQMD in response to partial disapproval by the EPA. The 2012 Lead SIP for the Los Angeles County portion of SCAB was adopted by the SCAQMD Board on May 4, 2012 and approved by ARB on May 24, 2012 and forwarded to the EPA for approval as a revision to the California SIP.

4.2 California Clean Air Act

The California Clean Air Act (CCAA) of 1988 was enacted to develop plans and strategies for attaining California Ambient Air Quality Standards (CAAQS). The California Air Resources Board (ARB), which is part of the California Environmental Protection Agency (Cal-EPA), develops statewide air quality regulations, including industry-specific limits on criteria, toxic, and nuisance pollutants. The CCAA is more stringent than Federal law in a number of ways including revised standards for PM_{10} and ozone and State for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

4.3 2016 Air Quality Management Plan

The purpose of an Air Quality Management Plan (AQMP) is to bring an air basin into compliance with federal and state air quality standards and is a multi-tiered document that builds on previously adopted AQMPs.[14] The 2003 AQMP was adopted in August 2003 and demonstrated O_3 and PM_{10} for the Basin. It also provides the maintenance plans for CO and NO_2, which the Basin has been in attainment for since 1997 and 1992, respectively. The 2007 AQMP for the Basin was approved by the SCAQMD Board of Directors in June 2007. The 2007 AQMP builds on the 2003 AQMP and is designed to address the federal 8-hour ozone and $PM_{2.5}$ air quality standards. The AQMP identifies short- and long-term control measures designed to reduce stationary, area, and mobile source emissions, organized into four primary components:

1. District Stationary and Mobile Source Control Measures
2. Air Resources Board (ARB) State Strategy
3. Supplement to ARB Control Strategy
4. SCAG Regional Transportation Strategy and Control Measures

The 2012 AQMP was adopted by the SCAQMD board on December 7, 2012. The 2012 AQMP incorporated the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP includes the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

The SCAQMD board most recently adopted the 2016 AQMP on March 3, 2017, building upon previous versions. The Plan recognizes that the most effective way to reduce air pollution impacts is to reduce emissions from mobile sources. For that reason, the SCAQMD worked closely engaged with the California Air Resources (CARB) and the U.S. EPA to develop new regulations. The Plan includes the integrated strategies and measures needed to meet the National Ambient Air Quality Standards (NAAQS), and demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hr and annual PM2.5 standards.[15]

4.4 Air Toxics

State requirements specifically address air toxics issues through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State air toxics program and the Air Toxics Hot Spots Information and Assessment Act (AB 2588). The air quality regulations developed from these bills have been modified recently to incorporate the Federal regulations associated with the Federal Clean Air Act Amendments of 1990. The Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) was enacted in September 1987. Under this bill, stationary sources of emissions are required to report the types and quantities of certain substances that their facilities routinely release into the air.

The SCAQMD is required to prepare an annual report on the status and forecast of air toxic *hotspots* pursuant to Section 44363 of the California Health and Safety Code. SCAQMD monitors facilities that are not exempt from the fee and reporting requirements of AB 2588.

Some facilities are covered under *umbrella* permits that address industry-wide categories. SCAQMD has issued general permits for the following seven activities:

- Retail gasoline dispensing
- Perchloroethylene dry cleaning
- Auto body shops
- Fiberglass molding
- Printing
- Metal plating
- Wood stripping and finishing

Emissions inventories and risk assessment guidelines have been prepared for the seven industry-wide categories. Approximately 1,400 auto body shops, 3,200 gasoline stations, and 1,400 perchloroethylene dry cleaners within the District are covered under these umbrella permits.

Depending on the severity of the facilities' toxic air contaminant (TAC) releases, SCAQMD requires either public notification of toxic hot spots or preparation of a risk reduction plan, as follows:

	Cancer Risk (per million)	Acute Risk	Chronic Risk
Action Risk Level	>= 25	>= 3.0	>= 3.0
Public Notification Level	>= 10	>= 1.0	>= 1.0
Exempt	<1	<0.1	<0.1

The proposed general gasoline dispensing facility use does not include use of stationary emergency or prime compression ignition internal combustion engines, portable diesel engines, or other equipment subject to AB 2588.

4.5 California Code of Regulations

In December 2008, the California Air Resources Board (ARB) approved the *Truck and Bus Regulations* as part of their rulemaking authority and adopted in Title 13 (Motor Vehicles) of the California Code of Regulations (CCR).[16]These regulations are applicable to all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) of 14,000 pounds or more

(Class 4 or greater) that are privately or federally owned and for privately and publicly owned school buses.[17] These regulations are designed to reduce emissions of particulate matter and oxides of nitrogen from existing diesel vehicles operating in California. Compliance scheduling is phased for light and heavy vehicle depending on the age of the vehicle engine. Full compliance across vehicle ratings is set in 2023. Regulations affect the following areas:

- Auxiliary Power Units
- Port and Rail Yard Trucks
- Emissions Control Label Inspection
- Greenhouse Gas Emissions Reductions
- Heavy-Duty Diesel Vehicle Inspection
- Idling Reduction
- Periodic Smoke Inspection
- Public and Utility Agencies
- Public Transit Agencies
- School Bus Fleets
- Solid Waste Collection Vehicles
- Transport Refrigeration Units

Starting in 2015, lighter trucks (between 14,000 and 26,000 GVWR) will be required to replace the vehicle and/or engine if the engine manufacture date is from 1995 or earlier. Newer engines will be required to be replaced on a graduated scale until 2023 when all engines will be required to meet model year 2010 emissions or equivalent. Heavier trucks (greater than 26,000 GVWR) have options for meeting the regulation requirements through 2023. Vehicles with engine years earlier than 1994 and 1995 will be required to be replaced in 2015 and 2016, respectively. Engines between 1996 and 2006 have the option to install a particulate filter before being required to replace the engine towards the compliance deadline. Later engines are considered compliant 2023 when they demonstrate 2010 emissions levels or equivalent.

Idling restrictions were established in 2008 and apply to vehicles greater than 10,000 GVWR (Class 3 or greater). These restrictions limit idling to five minutes or less before manual or automatic shutdown must be initiated. Engine models manufactured in 2008 and beyond are required to be equipped with a non-programmable engine shutdown mechanism that automatically shuts off the engine after five minutes of idling.

4.6 SCAQMD Rule Book

In order to control air pollution in the Basin, SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of businesses, processes, operations, and products to implement the AQMP and the various federal and state air quality requirements. SCAQMD does not adopt rules for mobile sources; those are established by ARB or the United States Environmental Protection Agency (EPA). Rules that will be applicable during construction of the proposed project include Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent opacity in the air). Rule 403 requires the implementation of Best Available Control Measures (BACM) and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres. Rule 1113 establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.

4.7 Executive Order S-3-05

Executive Order S-3-05 was issued by California Governor Arnold Schwarzenegger and established targets for the reduction of greenhouse gas emission at the milestone years of 2010, 2020, and 2050. Statewide GHG emissions must be reduced to 1990 levels by year 2020 and by 80 percent beyond that by year 2050. The Order requires the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate with other State departments to identify strategies and reduction programs to meet the identified targets. A Climate Action Team (CAT) was created and is headed by the Secretary of CalEPA

who reports on the progress of the reduction strategies. The latest CAT *Biennial Report to the Governor and Legislature* was completed in April 2010.[18] CAT also works in 11 subgroups to support development and implementation of the Scoping Plan (see *California Global Warming Solutions Act* herein).

4.8 California Global Warming Solutions Act

The California State Legislature adopted the California Global Warming Solutions Act in 2006 (AB32). AB32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order S-3-05 and establishes a regulatory timeline to meet the reduction targets. The timeline is as follows:

January 1, 2009	Adopt Scoping Plan
January 1, 2010	Early action measures take effect
January 1, 2011	Adopt GHG reduction measures
January 1, 2012	Reduction measures take effect
December 31, 2020	Deadline for 2020 reduction target

As part of AB32, CARB had to determine what 1990 GHG emissions levels were and projected a *business-as-usual* (BAU) estimate for 2020 to determine the amount of GHG emissions that will need to be reduced. BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies. 1990 emissions are estimated at 427 million metric tons of carbon dioxide equivalent (MMTCO2E) while 2020 emissions (after accounting for the economic downturn in 2008 and implementation of Pavley 1 vehicle emissions reductions and the State Renewable Portfolio Standard identified in Air Resources Board Scoping Plan below) are estimated at 507 MMTCO2E; therefore, California GHG emissions must be reduced 80 MMTCO2E (507 – 427 = 80) by 2020, a reduction of approximately 15 percent below BAU. Emissions are required to be reduced an additional 80 percent below 1990 levels by 2050.

4.9 Sustainable Communities and Climate Protection Act

In January 2009, California Senate Bill (SB) 375 went into effect known as the Sustainable Communities and Climate Protection Act.[19] The objective of SB375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB375 tasks ARB to set greenhouse gas reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy (APS) may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In the Southern California Association of Governments (SCAG) region (in which the project is located), sub-regions can also elect to prepare their own SCS or APS. In August 2010, ARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the SCAG region were 8-percent by year 2020 and 13-percent by year 2035. The 8-percent year 2020 target was adopted in September 2010 and tentatively adopted the year 2035 until February 2011 to provide additional time for SCAG, ARB, and other stakeholders to account for additional resources (such as state transportation funds) needed to achieve the proposed targets. In February 2011, the SCAG President affirmed the year 2035 reduction target and SCAG Staff updated ARB on additional funding opportunities.

4.10 Air Resources Board Scoping Plan

The ARB Scoping Plan is the comprehensive plan to reach the GHG reduction targets stipulated in AB32. The key elements of the plan are to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent,

develop a cap-and-trade program with other partners in the Western Climate Initiative (includes seven states in the United States and four territories in Canada), establish transportation-related targets, and establish fees.[20] The Scoping Plan measures are identified in Table 6 (Scoping Plan Measures). Note that the current early discrete actions are incorporated into these measures. ARB estimates that implementation of these measures will reduce GHG emissions in the state by 174 MMTCO2E by 2020; therefore, implementation of the Scoping Plan will meet the 2020 reduction target. In a report prepared on September 23, 2010, ARB indicates that 40 percent of the reduction measures identified in the Scoping Plan have been secured.[21] ARB held the hearing for the cap-and-trade program rulemaking on December 16, 2010. The cap-and-trade program began January 1, 2012 after ARB completed a series of activities that dealt with the registration process, compliance cycle, and tracking system.[22] ARB is currently working on the low carbon fuel standard where public hearings and workshops are currently being conducted. In August 2011, the Scoping plan was reapproved by the ARB Board with the program's environmental documentation.

The ARB prepared the First Update to the Scoping Plan (Update) with a draft made available for public review on February 10, 2014. The Update to the Scoping Plan built upon the 2008 Scoping Plan with new strategies and recommendations. This Update identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The Update defined ARB's climate change priorities for the next five years and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. It highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. It also evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. After considering public comments and Board direction, the final First Update, summary of comments received on the draft EA, and ARB's responses to those comments were released on May 15, 2014. The First Update to the Scoping Plan was approved by the Board on May 22, 2014.

Executive Order B-30-15 was signed by Governor Jerry Brown on April 29, 2015 that included a declaration for the state Scoping Plan to be updated to include a year 2030 threshold established at 40 percent below 1990 levels as an interim goal between the current 2020 and 2050 requirements. In 2016, the Legislature codified the 2030 reduction target and ARB updated the Scoping Plan to recognize and identify strategies to meet the new target.[23] The draft 2017 Climate Change Scoping Plan Update is currently available for public review and is scheduled for final approval in June 2017. The 2017 Scoping Plan update identifies an increased need for coordination among state, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. The update notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could realize emissions reductions up to 45 MMTCO2E by 2020 and 83 MMTCO2E by 2050. The 2017 Scoping Plan update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050.

4.11 Water Conservation in Landscaping Act

Section 65591 of the Government Code requires all local jurisdictions to adopt a water efficient landscape ordinance. The ordinance is to address water conservation through appropriate use and grouping of plants based on environmental conditions, water budgeting to maximize irrigation efficiency, storm water retention, and automatic irrigation systems. Failure to adopt a water efficiency ordinance requires a local jurisdiction to enforce the provisions of the state's model water efficiency ordinance. In 2009, the Department of Water Resources (DWR) updated the Model Water Efficient Landscape Ordinance pursuant to amendments to the 1991 Act. These amendments and the new model ordinance went into effect on January 1, 2010. The amended Act is applicable to any new commercial, multi-family, industrial, or tract home project containing 2,500 square feet (SF) or more of landscaping. Individual landscape projects of 5,000 SF or more on single-family properties will also be subject to the Act. All landscape plans are required to include calculations verifying conformance with the maximum applied water allowance and must be prepared and stamped by a licensed landscape architect.

4.12 California Green Building Standards

New California Green Building Standards Code (CALGREEN) went into effect on January 1, 2011.[24] The purpose of the new addition to the California Building Code (CBC) is to improve public health, safety, and general welfare by enhancing the design

and construction of buildings using concepts to reduce negative impacts or produce positive impacts on the environment. The CALGREEN regulations cover planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality. Many of the new regulations have the effect of reducing greenhouse gas emissions from the operation of new buildings. Table 7 (CALGREEN Requirements) summarizes the previous requirements of the CBC and the new requirements of CALGREEN that went into effect in January 2011. Minor technical revisions and additional requirements went into effect in July 2012. The Code was further updated in 2013, effective January 1, 2014 through 2016.

Table 6
Scoping Plan Measures

Measure	Description
T-1	Pavely I and II – Light Duty Vehicle Greenhouse Gas Standards
T-2	Low Carbon Fuel Standard
T-3	Regional Transportation-Related Greenhouse Gas Targets
T-4	Vehicle Efficiency Measures
T-5	Ship Electrification at Ports
T-6	Good Movement Efficiency Measures
T-7	Heavy-Duty Vehicle Aerodynamic Efficiency
T-8	Medium and Heavy-Duty Vehicle Hybridization
T-9	High Speed Rail
E-1	Energy Efficiency (Electricity Demand Reduction)
E-2	Increase Combined Heat and Power Use
E-3	Renewable Portfolio Standard
E-4	Million Solar Roofs
CR-1	Energy Efficiency (Natural Gas Demand Reduction)
CR-2	Solar Water Heating
GB-1	Green Buildings
W-1	Water Use Efficiency
W-2	Water Recycling
W-3	Water System Energy Efficiency
W-4	Reuse Urban Runoff
W-5	Increase Renewable Energy Production
W-6	Public Good Charge (Water)
I-1	Energy Efficiency for Large Industrial Sources
I-2	Oil and Gas Extraction GHG Reductions
I-3	Oil and Gas Transmission Leak Reductions
I-4	Refinery Flare Recovery Process Improvements
I-5	Removal of Methane Exemption from Existing Refinery Regulations
RW-1	Landfill Methane Control
RW-2	Increase Landfill Methane Capture Efficiency
RW-3	Recycling and Zero Waste
F-1	Sustainable Forest Target
H-1	Motor Vehicle Air Conditioning
H-2	Non-Utilities and Non-Semiconductor SF_6 Limits
H-3	Semiconductor Manufacturing PFC Reductions
H-4	Consumer Products High GWP Limits
H-5	High GWP Mobile Source Reductions
H-6	High GWP Stationary Source Reductions
H-7	High GWP Mitigation Fees
A-1	Large Dairy Methane Capture
Source: ARB 2017[25]	

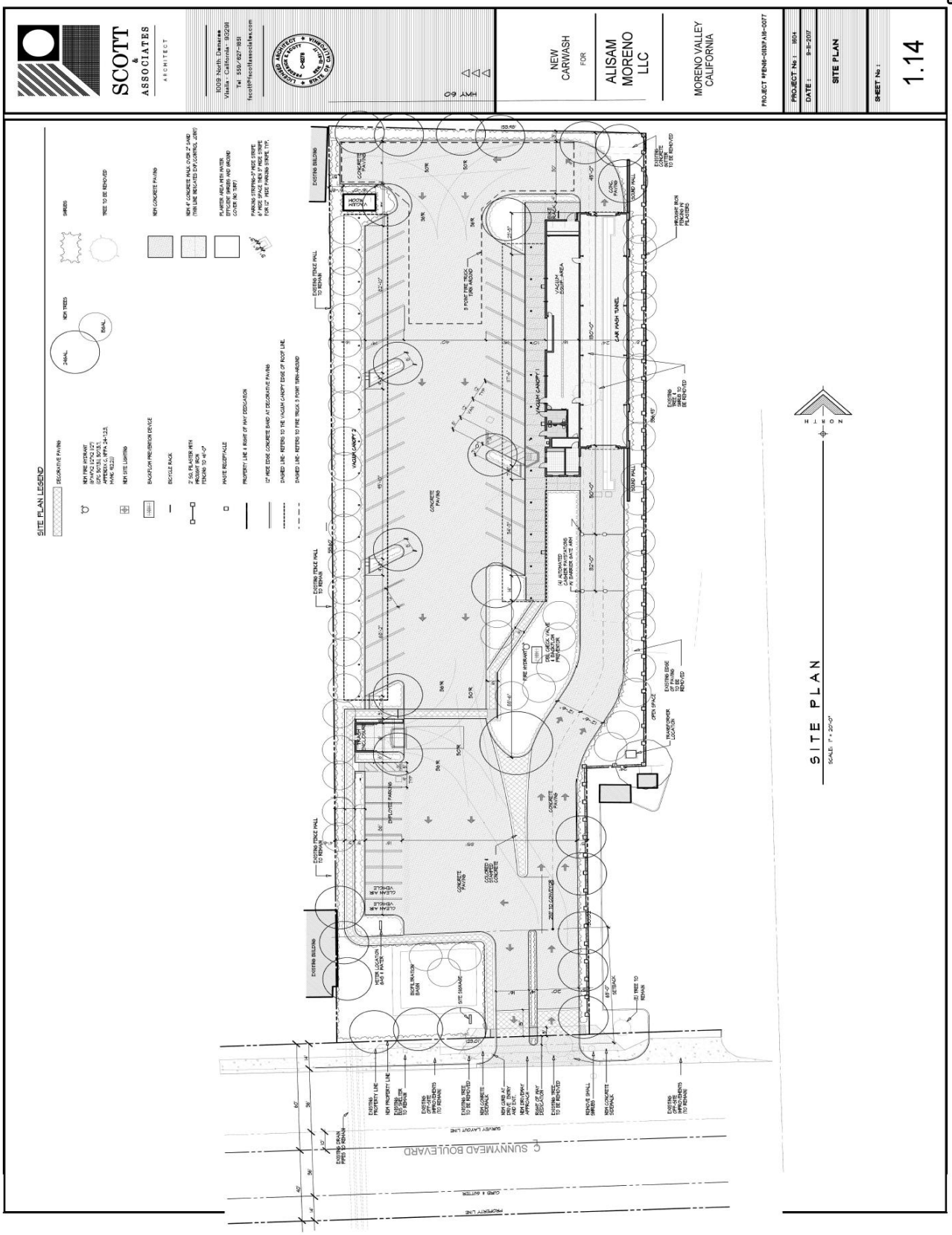
Table 7
CALGREEN Requirements

Item		Requirements	
		Previous	CALGREEN
4.1	Stormwater Management	Stormwater management required on projects > than one acre	All projects subject to stormwater management.
	Surface Drainage	Surface water must flow away from building	Drainage patterns must be analyzed
4.2	Energy Efficiency	California Energy Code	Minimum energy efficiency to be established by California Energy Commissions
4.3	Indoor Water Use	HCD maximum flush rates; CEC water use standards for appliances and fixtures	Indoor water use must decrease by at least 20 percent (prescriptive or performance based)
	Multiple Showerheads	Not covered	Multiple showerheads cannot exceed combined flow of the code
	Irrigation Controllers	Not covered	Irrigation controllers must be weather or soil moisture based controllers
4.4	Joint Protection	Plumbing and Mechanical Codes	All openings must be sealed with materials that rodents cannot penetrate
	Construction Waste	Local Ordinances	Establishes minimum 50 percent recycling and waste management plan
	Operation	Plumbing Code for gray water systems	Educational materials and manuals must be provided to building occupants and owners to ensure proper equipment operation
4.5	Fireplaces	Local Ordinances	Gas fireplaces must be direct-vent sealed-combustion type; Wood stoves and pellet stoves must meet USEPA Phase II emissions limits
	Mechanical Equipment	Not covered	All ventilation equipment must be sealed from contamination during construction
	VOCs	Local Ordinances	Establishes statewide limits on VOC emissions from adhesives, paints, sealants, and other coatings
	Capillary Break	No prescriptive method of compliance	Establishes minimum requirements for vapor barriers in slab on grade foundations
	Moisture Content	Current mill moisture levels for wall and floor beams is 15-20 percent	Moisture content must be verified prior to enclosure of wall or floor beams
	Whole House Fans	Not covered	Requires insulated louvers and closing mechanism when fan is off
	Bath Exhaust Fans	Not covered	Requires Energy Star compliance and humidistat control
	HVAC Design	Minimal requirements for heat loss, heat gain, and duct systems	Entire system must be designed in respects to the local climate
7	Installer Qualifications	HVAC installers need not be trained	HVAC installers must be trained or certified
	Inspectors	Training only required for structural materials	All inspectors must be trained

Source: HCD 2010

5 Project Description

The project includes the development of a new car wash facility on 1.68 acres of vacant land (APN 292-160-023) on Sunnymead Boulevard, south of State Route 60 and west of Heacock Street in the City of Moreno Valley, California. The car wash consists of one automated tunnel and a small associated building. The facility includes two large canopies under which patrons may park to vacuum their vehicles. Thirty-nine total parking spaces will be provided, including two Americans with Disabilities Act (ADA) parking stalls and two clean air stalls. Approximately 15,000 square feet of landscaping will be provided.



Not to Scale

Figure 2 Site Pla..

Sunnymead Car Wash

City of Mor

6 Air Quality Impact Analysis

The impact analysis contained herein was prepared utilizing guidance provided in the 1993 SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook. The thresholds identified in Appendix G of the State CEQA Guidelines, as implemented by the City of Moreno Valley, have been utilized to determine the significance of potential impacts.

6.1 Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines and the local implementation procedures of the City of Moreno Valley, the project could result in potentially significant impacts related to air quality if it:

A. Conflicts with or obstructs implementation of the applicable air quality plan.
B. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
C. Results in a cumulatively considerable net increase of any criteria pollutant that the region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
D. Exposes sensitive receptors to substantial pollutant concentrations.
E. Create objectionable odors affecting a substantial number of people.

To determine if maximum daily criteria pollutant emissions from construction and operation of the proposed car wash facility are significant, the SCAQMD significance thresholds are used. These thresholds are identified in Table 8 (SCAQMD Maximum Daily Emissions Thresholds (lbs/day)).

Table 8
SCAQMD Maximum Daily Emissions Thresholds (lbs/day)

Pollutant	Construction	Operation
NO_X	100	55
VOC/ROG	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2017		

6.2 AQMP Consistency

A significant impact could occur if the proposed project conflicts with or obstructs the implementation of South Coast Air Basin 2016 Air Quality Management Plan. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2016 Air Quality Management Plan (AQMP) is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP.[26] Consistency review is presented below:

1. The project would result in short-term construction and long-term pollutant emissions that are less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated in Section 6.3 et seq of this report; therefore, the project could not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation.

2. The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and *significant projects*. *Significant projects* include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities; therefore, the proposed project is not defined as *significant*.

6.3 Pollutant Emissions

6.3.1 Construction

Short-term criteria pollutant emissions will occur during site grading, building construction, paving, and architectural coating activities. Emissions will be generated from equipment usage, worker, vendor, and hauling trips, and disturbance of on-site soils (fugitive dust). The California Emissions Estimator Model (CalEEMod) has been utilized to determine if construction of the proposed car wash facility could result in a significant air quality impact. CalEEMod defaults have been used as the assumptions used in the model (see Appendix A for input values). The methodology for calculating emissions is included in the CalEEMod *User Guide,* freely available at http://www.caleemod.com/.

Construction of the project is anticipated to start in 2017. The site currently sits vacant, unpaved, and almost entirely unvegetated. As such, site preparation and demolition were not modeled as a part of construction activities. An estimated 500 cubic yards of soil, however, will be removed during grading activities to make room for underground water storage tanks and the footings of the car wash.

The results of the CalEEMod outputs are summarized in Table 9 (Car Wash Facility Maximum Daily Construction Emissions). The model indicates that construction emissions will not be excessive for any criteria pollutant.

Table 9
Car Wash Facility Maximum Daily Construction Emissions (lbs/day)

	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum	8.22	23.68	16.47	0.03	6.18	3.46
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Substantial?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MIG 2017.

6.3.2 Operational Sources

Operation of the proposed car wash facility will result in long-term criteria air pollutant emissions. Long-term emissions are categorized as area source emissions, energy demand emissions, and operational emissions. Operational emissions will result from vehicle sources associated with daily trips to and from the proposed car wash. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products, and periodic repainting of the small structure. Energy demand emissions result from use of electricity and natural gas.

The car wash consists of one automated tunnel with five underground storage tanks to reclaim and recycle water. Water use for the car wash was estimated at a 20 gallons per vehicle – though each individual vehicle washed will require more water, Tri Millenium Properties estimates that the car wash will recycle up to 90% of all water used. As such, 20 gallons per vehicle is likely an overestimation for total water usage. Number of vehicles washed was estimated at 450 daily, based on a Trip Generation Manual from the City of San Diego for similar facilities.[27] San Diego exhibits similar characteristics to the rest of Southern California, making this trip rate applicable in Moreno Valley as well. With a resulting total of 164,250 vehicles washed annually, total water demand is estimated at 3,285,000 gallons per year. It has also been assumed that approximately 4.2312 kilowatt hours (kWh) of electricity is consumed per vehicle washed. Because data is not widely available on energy

consumption by the type of vacuums used at these types of facilities, a generous buffer has been applied to project energy use to account for this, as well as the minimal energy that would be used by the small structure for employees.

The California Emissions Estimator Model (CalEEMod) was utilized to estimate mobile source emissions. As mentioned above, trip generation is based the "full service car wash" entry from the City of San Diego's Trip Generation Manual. CalEEMod also includes default outdoor water demand for landscape irrigation. Default inputs for all operational source were used for the project. Maximum daily operational emissions as estimated by CalEEMod are summarized in Table 10 (Operational Daily Emissions). Operational emissions generated by operation of the proposed project will not exceed the thresholds established by SCAQMD.

Table 10
Operational Daily Emissions (lbs/day)

Source	ROG	NOX	CO	SO2	PM10	PM2.5
Summer						
Area Sources	0.17	0.00	0.01	0.00	0.00	0.00
Energy Demand	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources	0.95	4.53	12.54	0.04	3.08	0.85
Summer Total	***1.13***	***4.53***	***12.54***	***0.04***	***3.08***	***0.85***
Winter						
Area Sources	0.17	0.00	0.01	0.00	0.00	0.00
Energy Demand	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources	0.92	4.65	11.85	0.04	3.08	0.85
Winter Total	***1.09***	***4.65***	***11.86***	***0.04***	***3.08***	***0.85***
SCAQMD Daily Threshold	55	55	550	150	150	55
Potentially Significant?	No	No	No	No	No	No

6.4 Sensitive Receptors

6.4.1 Toxic Air Contaminants

Operationally, the proposed project would not emit point-source toxic air contaminants that could expose any receptor to undue risk. Car washes are not considered major sources of toxic emission by ARB.

6.4.2 Localized Significance Thresholds

As part of SCAQMD's environmental justice program, attention has recently been focusing more on the localized effects of air quality.[28] Although the region may be in attainment for a particular criteria pollutant, localized emissions from construction activities coupled with ambient pollutant levels can cause localized increases in criteria pollutant that exceed national and/or State air quality standards.

Construction-related criteria pollutant emissions and potentially significant localized impacts were evaluated pursuant to the SCAQMD Final Localized Significance Thresholds Methodology. This methodology provides screening tables for one- through five-acre project scenarios, depending on the amount of site disturbance during a day. Maximum daily oxides of nitrogen (NO_X), carbon monoxide (CO), and particulate matter (PM_{10} and $PM_{2.5}$) emissions will occur during construction of the project, grading of the project site, and paving of facility parking lots. Table 11 (Car Wash Localized Significance Threshold Analysis) summarizes on-site emissions as compared to the local thresholds established for Source Receptor Area (SRA) 24 (Perris Valley). Linear regression was used to determine appropriate thresholds for a 1.68-acre project, using the data from one and two acre mass rate LST look-up tables. A 25 meter receptor distance, the most restrictive, was used to reflect the surrounding urbanized context of the project site. Note that particulate matter emissions account for daily watering required by SCAQMD

Rule 403 (three times per day for a 61 percent reduction in fugitive dust). Emissions from construction activities will not exceed any localized threshold.

Table 11
Car Wash Localized Significance Threshold Analysis (lbs/day)

Phase	CO	NO_X	PM_{10}	$PM_{2.5}$
Grading	7.03	18.29	5.80	3.33
Building Construction (2017)	14.36	19.24	1.23	1.19
Paving On Site	8.99	10.45	0.61	0.56
Architectural Coating	1.85	2.01	0.15	0.15
Threshold	**793.08**	**153.36**	**6.04**	**3.68**
Potentially Substantial?	**No**	**No**	**No**	**No**

Source: MIG, 2017.

6.4.3 Carbon Monoxide Hotspots

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to violate state and federal CO standards at intersections, even if the broader Basin is in attainment for federal and state levels. In general, SCAQMD and the California Department of Transportation *Project-Level Carbon Monoxide Protocol* (CO Protocol) recommend analysis of CO hotspots when a project increases traffic volumes at an intersection by more than two percent that is operating at LOS D or worse.[26] According to Section 3.1.3 of the Protocol, the project is not regionally significant and therefore is only required to examine local impacts (see Appendix E). Regionally significant projects are defined in 40 CFR Section 93.101 and through extension in 40 CFR Section 93.105(c)(1)(ii), as follows:

> *Regionally significant project means a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.*

Localized impacts are analyzed in Protocol Section 4. The local analysis procedures in Section 4.7.1 indicate that a project has the potential to worsen air quality (as defined for Protocol purposes only) if it will result in an increase in the number of vehicles operating in *cold start* mode by more than two percent, increases traffic volumes by five percent, or worsens traffic flow by reducing speeds by three miles per hour or more. The proposed project will generate approximately 450 average daily trips. The local analysis procedures then direct to Protocol Sections 4.7.3 and 4.7.4. These sections indicate that if the project involves signalized intersections performing at Level of Service (LOS) E or worse, then the project will be subject to a screening analysis.

The nearest intersection to the project site is the intersection of Heacock Street and Sunnymead Boulevard. This intersection serves traffic coming from and going to SR-60 and is anecdotally quite busy. Though no traffic study was performed for the project, it can be safely assumed this intersection is performing at LOS E or worse. As such, pursuant to Section 4.7.3, the project could be subject to a screening analysis. Section 4.4 references Appendix A of the Protocol for screening purposes; however, because of the age of the assumptions used in the screening procedures, they are no longer acceptable. The Sacramento Metropolitan Air Quality Management District (SAQMD) developed a screening threshold that states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis.[30] According to the City of Moreno Valley's traffic counts, the intersection of Heacock Street and Sunnymead Boulevard does not experience this level of traffic; therefore, the project passes the screening analysis and impacts are deemed acceptable. Based on the local analysis procedures, the project is satisfactory pursuant to the Protocol and will not result in a CO hotspot.[31]

6.5 Odors

According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed car wash and vacuum stations do not produce odors that could affect a substantial number of people.

6.6 Cumulative Impacts

6.6.1 Cumulative Construction Impacts

Cumulative short-term, construction-related emissions from the project will not contribute considerably to any aggregated local or regional air quality standard because construction emission from the project will be less than significant as projected and analyzed in this report, thus, the contribution to air quality impacts will not be cumulatively considerable. Additionally, other concurrent construction projects in the region will be required to have implemented standard air quality regulations and mitigation pursuant to State CEQA requirements, as will be implemented during construction of the proposed car wash facility.

6.6.2 Cumulative Operational Impacts

The SCAQMD CEQA Air Quality Handbook identifies methodologies for analyzing long-term cumulative air quality impacts for criteria pollutants for which the Basin is nonattainment. These methodologies identify three performance standards that can be used to determine if long-term emissions will result in cumulative impacts. Essentially, these methodologies assess growth associated with a land use project and are evaluated for consistency with regional projections. These methodologies are outdated, and are no longer recommended by SCAQMD. SCAQMD allows a project to be analyzed using the projection method such that consistency with the AQMP will indicate that a project will not contribute considerably to cumulative air quality impacts. As discussed in AQMP Consistency, the proposed project is consistent with growth assumptions in the AQMP, and would not exceed any applicable SCAQMD thresholds for short- and long-term emissions. Therefore, the proposed project will not contribute to any potential cumulative air quality impacts.

7 Climate Change Impact Analysis

7.1 Thresholds of Significance

The proposed project could result in potentially significant impacts related to greenhouse gas emissions and global climate change if it would:

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
B. Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not been established by the South Coast Air Quality Management District (SCAQMD). As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, a non-zero threshold approach based on Approach 2 of the handbook has been used. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 3,000 metric tons carbon dioxide equivalent (MTCO2E) per year for land use projects.[32] This threshold is based on the review of 711 CEQA projects. This threshold will be utilized herein to determine if emissions of greenhouse gases from the proposed project and hypothetical development will be significant.

7.2 Direct and Indirect Emissions

The proposed car wash facility will include activities that emit greenhouse gas emissions over the short- and long-term. While one project could not be said to cause global climate change, individual projects contribute cumulatively to greenhouse gas emissions that result in climate change. A greenhouse gas emissions inventory was prepared for the project and is analyzed below.

7.2.1 Short-Term Emissions

The proposed project will result in short-term greenhouse gas emissions associated with construction and installation activities. Greenhouse gas emissions will be released by equipment used for grading, paving, and building construction activities. GHG emissions will also result from worker and vendor trips to and from the project site. Table 12 (Car Wash Facility Construction Greenhouse Gas Emissions) summarizes the estimated yearly emissions from construction activities. Carbon dioxide emissions from construction equipment and worker/vendor trips were estimated utilizing the California Emissions Estimator Model (CalEEMod) version 2016.3.1 (see Appendix A). Construction activities are short-term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. Because of this difference, SCAQMD recommends in its draft threshold to amortize construction emissions over a 30-year operational lifetime. This normalizes construction emissions so that they can be grouped with operational emissions in order to generate a precise project GHG inventory. Amortized construction emissions are also included in Table.

Table 12
Car Wash Facility Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions (MT/YR)			
	CO_2	CH_4	N_2O	TOTAL*
2017	238	<1	0	239
2018	23	<1	0	23
Total	261	<1	0	262
*AMORTIZED TOTAL^*	*9*	*<1*	*0*	*9*
* MTCO2E Note: Slight variations may occur due to rounding ^ Amortized over 30-years				

7.2.2 Long-Term Emissions

Car wash and vacuuming activities will result in continuous greenhouse gas emissions from mobile and operational sources. Mobile sources including vehicle trips generated by the project will result primarily in emissions of CO_2 with minor emissions of CH_4 and N_2O. Energy demand generates GHG emissions through the use of electricity and natural gas. The most significant GHG emission from natural gas usage will be methane. Electricity usage by the proposed project and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide due to the burning of fossil fuels in electricity production. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO_2 emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas emissions for the build-out of the proposed project.

To determine long-term emissions, CalEEMod was used. The methodology utilized for each emissions source is based on the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* handbook.[33] A summary of the proposed project's long-term greenhouse gas emissions is included in Table 13 (Car Wash Facility Operational Greenhouse Gas Inventory). Emissions are presented as metric tons of carbon dioxide equivalent (MTCO2E) defined by all emissions having been weighted based on their Global Warming Potential (GWP) (a metric ton is equal to 1.102 US short tons).

Table 13
Car Wash Facility Operational Greenhouse Gas Emissions

Source	GHG Emissions (MT/YR)			
	CO_2	CH_4	N_2O	TOTAL*
Energy	325	<1	<1	326
Mobile	639	<1	0	639
Solid Waste	4	<1	0	10
Water/Wastewater	14	<1	<1	14
TOTAL	981	<1	<1	989
* MTCO2E/YR Note: Slight variations may occur due to rounding				

Mobile sources are based on annual vehicle miles traveled (VMT) by each daily trip assumed in CalEEMod (see Appendix A). Solid waste generation and indoor water demand for the facility is based on CalEEMod defaults for a "Gasoline/Service Station". Water use for the car wash was estimated at a 20 gallons per vehicle – though each individual vehicle washed will require more water (potentially 60 to 80 gallons per vehicle (CITE STUDY!), Tri Millenium Properties estimates that the car wash will recycle 90% of all water used. As such, 20 gallons per vehicle is a conservative estimate for total water usage. With an average of 164,250 vehicles washed annually (450 daily, another conservative estimate), total water demand is estimated at 3,285,000 gallons per year.

7.2.3 Greenhouse Gas Emissions Inventory

Table 14 (Car Wash Facility Greenhouse Gas Emissions Inventory) summarizes the yearly estimated greenhouse gas emissions from construction and operational sources. The total yearly carbon dioxide equivalent emissions are estimated at 982 MTCO2E for the proposed project. Thus, the car wash facility would not exceed the SCAQMD threshold of 3,000 MTCO2E per year.

Table 14
Car Wash Facility Greenhouse Gas Emissions Inventory

Source	GHG Emissions (MT/YR)			
	CO_2	CH_4	N_2O	TOTAL*
Construction	9	<1	0	10
Operation	981	<1	<1	98
			Grand Total	**999**

* MTCO2E/YR
Note: Slight variations may occur due to rounding
^ Construction impacts amortized over 30-years

7.3 Greenhouse Gas Emissions Reduction Planning

ARB's *Scoping Plan* identifies strategies to reduce California's greenhouse gas emissions in support of AB32. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as energy efficiency. Finally, while some measures are not directly applicable, the project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California.[34] Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).
4. **Renewables Portfolio Standards.** Achieve 33 percent renewable energy mix statewide.
5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard.
6. **Regional Transportation-Related Greenhouse Gas Targets.** Develop regional greenhouse gas emissions reduction targets for passenger vehicles.
7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures.
8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs.

10. **Medium- and Heavy-Duty Vehicles.** Adopt medium- (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010.[35] Future, yet to be determined improvements, includes hybridization of MD and HD trucks.
11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. **High Speed Rail.** Support implementation of a high speed rail system.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. **High Global Warming Potential Gases.** Adopt measures to reduce high warming global potential gases.
15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million MTCO2E/YR.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water.
18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

Table 15 (Car Wash Facility Scoping Plan Consistency Summary) summarizes consistency with the State Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan and in fact supports four of the action categories through water conservation and recycling.

Table 15
Car Wash Facility Scoping Plan Consistency Summary

Action	Supporting Measures	Consistency
Cap-and-Trade Program	--	**Not Applicable.** These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not directly affect car wash facilities..
Light-Duty Vehicle Standards	T-1	**Not Applicable.** This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1	**Consistent.** The project will not conflict with any State mandated energy efficiency requirements.
	E-2	
	CR-1	
	CR-2	
Renewables Portfolio Standard	E-3	**Not Applicable.** Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	**Not Applicable.** Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related Greenhouse Gas Targets	T-3	**Consistent.** The project includes features that reduce greenhouse gas emissions, assisting the region in meeting emissions targets.
Vehicle Efficiency Measures	T-4	**Not Applicable.** Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.

Action	Supporting Measures	Consistency
Goods Movement	T-5	**Not applicable.** Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories.
	T-6	
Million Solar Roofs Program	E-4	**Not Applicable.** Sets goal for use of solar systems throughout the state. While the project currently does not include solar energy generation, the buildings could support solar panels in the future.
Medium- & Heavy-Duty Vehicles	T-7	**Not applicable.** Medium-duty and heavy-duty trucks and trailers will not operate from the proposed project.
	T-8	
Industrial Emissions	I-1	**Not Applicable.** These measures are applicable to large industrial facilities (> 500,000 MTCOE2/YR) and other intensive uses such as refineries.
	I-2	
	I-3	
	I-4	
	I-5	
High Speed Rail	T-9	**Not Applicable.** Supports increased mobility choice.
Green Building Strategy	GB-1	**Consistent.** The project includes water and solid waste efficiencies consistent with CALGREEN requirements.
High Global Warming Potential Gases	H-1	**Not Applicable.** The proposed project is not a substantial source of high GWP emissions and will comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
	H-2	
	H-3	
	H-4	
	H-5	
	H-6	
	H-7	
Recycling and Waste	RW-1	**Consistent.** The project is subject to a minimum 50 percent recycling standard and will recycle a minimum of 50 percent of construction debris per State and City requirements.
	RW-2	
	RW-3	
Sustainable Forests	F-1	**Not Applicable.** The project site is not forested and the project would not result in the loss of any forest land.
Water	W-1	**Consistent.** The project includes use of recycled water and low-flow fixtures.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	**Not Applicable.** The project is not an agricultural use.

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Appendix A CalEEMod Output

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Sunnymead Blvd Car Wash

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.15	6,500.00	0
Other Non-Asphalt Surfaces	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	52.00	1000sqft	1.19	52,000.00	0
	0.00		0.00		0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined Commercial: Car Wash

Construction Phase -

Trips and VMT - urban area, shorter hauling length

Grading -

Vehicle Trips - car wash trip generation from SANDAG study

Energy Use - Car wash electricity assumes 4.2312 kWH/vehicle (based on 'Professional Carwashing & Detailing' case study) + a conservative estimate for vacuum station energy consumption

Water And Wastewater - given recycling/reclaiming of water (90% estimated by client) , 20 gal/vehicle fresh water is assumed (and this is quite conservative, it is probably less)
urban area, no septic tanks

Solid Waste - using CalEEMod's "Gasoline/Service Station" rate of 3.00 tons/1000sqft building

Sequestration - from site plan

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.00	150.00
tblFleetMix	FleetMixLandUseSubType	User Defined Commercial	
tblFleetMix	FleetMixLandUseSubType		User Defined Commercial
tblLandUse	BuildingSpaceSquareFeet	0.00	6,500.00
tblLandUse	LandUseSquareFeet	0.00	6,500.00
tblLandUse	LotAcreage	0.00	0.15
tblProjectCharacteristics	OperationalYear	2018	2019
tblSequestration	NumberOfNewTrees	0.00	74.00
tblSolidWaste	SolidWasteGenerationRate	0.00	19.50
tblTripsAndVMT	HaulingTripNumber	0.00	62.00
tblVehicleTrips	CC_TTP	0.00	95.00
tblVehicleTrips	CNW_TTP	0.00	1.00
tblVehicleTrips	CW_TTP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	450.00
tblVehicleTrips	SU_TR	0.00	450.00
tblVehicleTrips	WD_TR	0.00	450.00
tblWater	AerobicPercent	87.46	97.79
tblWater	AerobicPercent	87.46	97.79
tblWater	IndoorWaterUseRate	0.00	282,243.00
tblWater	OutdoorWaterUseRate	0.00	209,040.00
tblWater	OutdoorWaterUseRate	0.00	3,285,000.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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	3.2042	23.5950	16.4723	0.0290	5.2744	1.2476	6.1775	2.6235	1.2030	3.4554	0.0000	2,891.2236	2,891.2236	0.5446	0.0000	2,904.8381
2018	8.2195	19.0014	15.7476	0.0288	0.4121	1.0714	1.4835	0.1110	1.0343	1.1453	0.0000	2,728.8659	2,728.8659	0.4443	0.0000	2,739.9730
Maximum	**8.2195**	**23.5950**	**16.4723**	**0.0290**	**5.2744**	**1.2476**	**6.1775**	**2.6235**	**1.2030**	**3.4554**	**0.0000**	**2,891.2236**	**2,891.2236**	**0.5446**	**0.0000**	**2,904.8381**

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	3.2042	23.5950	16.4723	0.0290	5.2744	1.2476	6.1775	2.6235	1.2030	3.4554	0.0000	2,891.2236	2,891.2236	0.5446	0.0000	2,904.8381
2018	8.2195	19.0014	15.7476	0.0288	0.4121	1.0714	1.4835	0.1110	1.0343	1.1453	0.0000	2,728.8659	2,728.8659	0.4443	0.0000	2,739.9730
Maximum	**8.2195**	**23.5950**	**16.4723**	**0.0290**	**5.2744**	**1.2476**	**6.1775**	**2.6235**	**1.2030**	**3.4554**	**0.0000**	**2,891.2236**	**2,891.2236**	**0.5446**	**0.0000**	**2,904.8381**

	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	N20	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**

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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	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
Mobile	0.9522	4.5326	12.5372	0.0396	3.0334	0.0442	3.0776	0.8116	0.0416	0.8533		4,020.7069	4,020.7069	0.2107		4,025.9743
Total	**1.1269**	**4.5326**	**12.5442**	**0.0396**	**3.0334**	**0.0443**	**3.0777**	**0.8116**	**0.0416**	**0.8533**		**4,020.7218**	**4,020.7218**	**0.2107**	**0.0000**	**4,025.9902**

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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	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
Mobile	0.9522	4.5326	12.5372	0.0396	3.0334	0.0442	3.0776	0.8116	0.0416	0.8533		4,020.7069	4,020.7069	0.2107		4,025.9743
Total	**1.1269**	**4.5326**	**12.5442**	**0.0396**	**3.0334**	**0.0443**	**3.0777**	**0.8116**	**0.0416**	**0.8533**		**4,020.7218**	**4,020.7218**	**0.2107**	**0.0000**	**4,025.9902**

	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	N20	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	4/6/2017	4/11/2017	5	4	
2	Building Construction	Building Construction	4/12/2017	1/16/2018	5	200	
3	Paving	Paving	1/17/2018	1/30/2018	5	10	
4	Architectural Coating	Architectural Coating	1/31/2018	2/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.53

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,750; Non-Residential Outdoor: 3,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	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	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	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	3	8.00	0.00	62.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	30.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039		1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**		**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

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	0.1618	5.2681	1.0112	0.0125	0.2707	0.0286	0.2994	0.0742	0.0274	0.1016		1,346.0335	1,346.0335	0.0981		1,348.4855
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	**0.2098**	**5.3035**	**1.4658**	**0.0135**	**0.3602**	**0.0294**	**0.3895**	**0.0979**	**0.0281**	**0.1260**		**1,446.3278**	**1,446.3278**	**0.1019**		**1,448.8745**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039	0.0000	1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**	**0.0000**	**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

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	0.1618	5.2681	1.0112	0.0125	0.2707	0.0286	0.2994	0.0742	0.0274	0.1016		1,346.0335	1,346.0335	0.0981		1,348.4855
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	**0.2098**	**5.3035**	**1.4658**	**0.0135**	**0.3602**	**0.0294**	**0.3895**	**0.0979**	**0.0281**	**0.1260**		**1,446.3278**	**1,446.3278**	**0.1019**		**1,448.8745**

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	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**		**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

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	0.0587	1.5528	0.4108	3.1300e-003	0.0768	0.0135	0.0902	0.0221	0.0129	0.0350		333.4290	333.4290	0.0242		334.0330
Worker	0.1801	0.1326	1.7047	3.7800e-003	0.3353	2.7800e-003	0.3381	0.0889	2.5700e-003	0.0915		376.1037	376.1037	0.0142		376.4587
Total	**0.2389**	**1.6854**	**2.1155**	**6.9100e-003**	**0.4121**	**0.0162**	**0.4284**	**0.1110**	**0.0154**	**0.1265**		**709.5327**	**709.5327**	**0.0384**		**710.4917**

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	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**	**0.0000**	**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

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	0.0587	1.5528	0.4108	3.1300e-003	0.0768	0.0135	0.0902	0.0221	0.0129	0.0350		333.4290	333.4290	0.0242		334.0330
Worker	0.1801	0.1326	1.7047	3.7800e-003	0.3353	2.7800e-003	0.3381	0.0889	2.5700e-003	0.0915		376.1037	376.1037	0.0142		376.4587
Total	**0.2389**	**1.6854**	**2.1155**	**6.9100e-003**	**0.4121**	**0.0162**	**0.4284**	**0.1110**	**0.0154**	**0.1265**		**709.5327**	**709.5327**	**0.0384**		**710.4917**

3.3 Building Construction - 2018

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.0516	1.4579	0.3701	3.1200e-003	0.0768	0.0107	0.0874	0.0221	0.0102	0.0323		332.4110	332.4110	0.0230		332.9850
Worker	0.1603	0.1156	1.5009	3.6700e-003	0.3353	2.6900e-003	0.3380	0.0889	2.4800e-003	0.0914		365.6160	365.6160	0.0125		365.9284
Total	**0.2119**	**1.5735**	**1.8710**	**6.7900e-003**	**0.4121**	**0.0134**	**0.4255**	**0.1110**	**0.0127**	**0.1237**		**698.0271**	**698.0271**	**0.0355**		**698.9135**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.0516	1.4579	0.3701	3.1200e-003	0.0768	0.0107	0.0874	0.0221	0.0102	0.0323		332.4110	332.4110	0.0230		332.9850
Worker	0.1603	0.1156	1.5009	3.6700e-003	0.3353	2.6900e-003	0.3380	0.0889	2.4800e-003	0.0914		365.6160	365.6160	0.0125		365.9284
Total	**0.2119**	**1.5735**	**1.8710**	**6.7900e-003**	**0.4121**	**0.0134**	**0.4255**	**0.1110**	**0.0127**	**0.1237**		**698.0271**	**698.0271**	**0.0355**		**698.9135**

3.4 Paving - 2018

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3300**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

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	0.0695	0.0501	0.6504	1.5900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		158.4336	158.4336	5.4100e-003		158.5690
Total	**0.0695**	**0.0501**	**0.6504**	**1.5900e-003**	**0.1453**	**1.1700e-003**	**0.1465**	**0.0385**	**1.0700e-003**	**0.0396**		**158.4336**	**158.4336**	**5.4100e-003**		**158.5690**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3300**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

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	0.0695	0.0501	0.6504	1.5900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		158.4336	158.4336	5.4100e-003		158.5690
Total	**0.0695**	**0.0501**	**0.6504**	**1.5900e-003**	**0.1453**	**1.1700e-003**	**0.1465**	**0.0385**	**1.0700e-003**	**0.0396**		**158.4336**	**158.4336**	**5.4100e-003**		**158.5690**

3.5 Architectural Coating - 2018

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	7.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**8.1874**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

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	0.0321	0.0231	0.3002	7.3000e-004	0.0671	5.4000e-004	0.0676	0.0178	5.0000e-004	0.0183		73.1232	73.1232	2.5000e-003		73.1857

Total	**0.0321**	**0.0231**	**0.3002**	**7.3000e-004**	**0.0671**	**5.4000e-004**	**0.0676**	**0.0178**	**5.0000e-004**	**0.0183**		**73.1232**	**73.1232**	**2.5000e-003**		**73.1857**

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	7.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**8.1874**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

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	0.0321	0.0231	0.3002	7.3000e-004	0.0671	5.4000e-004	0.0676	0.0178	5.0000e-004	0.0183		73.1232	73.1232	2.5000e-003		73.1857
Total	**0.0321**	**0.0231**	**0.3002**	**7.3000e-004**	**0.0671**	**5.4000e-004**	**0.0676**	**0.0178**	**5.0000e-004**	**0.0183**		**73.1232**	**73.1232**	**2.5000e-003**		**73.1857**

4.0 Operational Detail - Mobile

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	0.9522	4.5326	12.5372	0.0396	3.0334	0.0442	3.0776	0.8116	0.0416	0.8533		4,020.7069	4,020.7069	0.2107		4,025.9743
Unmitigated	0.9522	4.5326	12.5372	0.0396	3.0334	0.0442	3.0776	0.8116	0.0416	0.8533		4,020.7069	4,020.7069	0.2107		4,025.9743

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Commercial	450.00	450.00	450.00	1,427,189	1,427,189
Total	450.00	450.00	450.00	1,427,189	1,427,189

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	16.60	8.40	6.90	4.00	95.00	1.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Other Non-Asphalt Surfaces	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Parking Lot	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

User Defined Commercial	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

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	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
NaturalGas Unmitigated	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

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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

Total		**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**

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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
Total		**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**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Unmitigated	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159

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	0.0216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Total	**0.1747**	**7.0000e-005**	**7.0100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0149**	**0.0149**	**4.0000e-005**		**0.0159**

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	0.0216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Total	**0.1747**	**7.0000e-005**	**7.0100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0149**	**0.0149**	**4.0000e-005**		**0.0159**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnymead Blvd Car Wash

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.15	6,500.00	0
Other Non-Asphalt Surfaces	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	52.00	1000sqft	1.19	52,000.00	0
	0.00		0.00		0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined Commercial: Car Wash

Construction Phase -

Trips and VMT - urban area, shorter hauling length

Grading -

Vehicle Trips - car wash trip generation from SANDAG study

Energy Use - Car wash electricity assumes 4.2312 kWH/vehicle (based on 'Professional Carwashing & Detailing' case study) + a conservative estimate for vacuum station energy consumption

Water And Wastewater - given recycling/reclaiming of water (90% estimated by client) , 20 gal/vehicle fresh water is assumed (and this is quite conservative, it is probably less)
urban area, no septic tanks

Solid Waste - using CalEEMod's "Gasoline/Service Station" rate of 3.00 tons/1000sqft building

Sequestration - from site plan

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.00	150.00
tblFleetMix	FleetMixLandUseSubType	User Defined Commercial	
tblFleetMix	FleetMixLandUseSubType		User Defined Commercial
tblLandUse	BuildingSpaceSquareFeet	0.00	6,500.00
tblLandUse	LandUseSquareFeet	0.00	6,500.00
tblLandUse	LotAcreage	0.00	0.15
tblProjectCharacteristics	OperationalYear	2018	2019
tblSequestration	NumberOfNewTrees	0.00	74.00
tblSolidWaste	SolidWasteGenerationRate	0.00	19.50
tblTripsAndVMT	HaulingTripNumber	0.00	62.00
tblVehicleTrips	CC_TTP	0.00	95.00
tblVehicleTrips	CNW_TTP	0.00	1.00
tblVehicleTrips	CW_TTP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	450.00
tblVehicleTrips	SU_TR	0.00	450.00
tblVehicleTrips	WD_TR	0.00	450.00
tblWater	AerobicPercent	87.46	97.79
tblWater	AerobicPercent	87.46	97.79
tblWater	IndoorWaterUseRate	0.00	282,243.00
tblWater	OutdoorWaterUseRate	0.00	209,040.00
tblWater	OutdoorWaterUseRate	0.00	3,285,000.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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	3.2238	23.6782	16.3698	0.0286	5.2744	1.2478	6.1780	2.6235	1.2032	3.4559	0.0000	2,863.4017	2,863.4017	0.5485	0.0000	2,877.1133
2018	8.2226	19.0160	15.6530	0.0285	0.4121	1.0715	1.4837	0.1110	1.0344	1.1455	0.0000	2,697.3842	2,697.3842	0.4451	0.0000	2,708.5124
Maximum	**8.2226**	**23.6782**	**16.3698**	**0.0286**	**5.2744**	**1.2478**	**6.1780**	**2.6235**	**1.2032**	**3.4559**	**0.0000**	**2,863.4017**	**2,863.4017**	**0.5485**	**0.0000**	**2,877.1133**

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	3.2238	23.6782	16.3698	0.0286	5.2744	1.2478	6.1780	2.6235	1.2032	3.4559	0.0000	2,863.4017	2,863.4017	0.5485	0.0000	2,877.1133
2018	8.2226	19.0160	15.6530	0.0285	0.4121	1.0715	1.4837	0.1110	1.0344	1.1455	0.0000	2,697.3842	2,697.3842	0.4451	0.0000	2,708.5124
Maximum	**8.2226**	**23.6782**	**16.3698**	**0.0286**	**5.2744**	**1.2478**	**6.1780**	**2.6235**	**1.2032**	**3.4559**	**0.0000**	**2,863.4017**	**2,863.4017**	**0.5485**	**0.0000**	**2,877.1133**

	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	N20	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**

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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	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
Mobile	0.9184	4.6507	11.8517	0.0376	3.0334	0.0445	3.0780	0.8116	0.0419	0.8536		3,813.1710	3,813.1710	0.2099		3,818.4176
Total	**1.0931**	**4.6507**	**11.8587**	**0.0376**	**3.0334**	**0.0446**	**3.0780**	**0.8116**	**0.0419**	**0.8536**		**3,813.1859**	**3,813.1859**	**0.2099**	**0.0000**	**3,818.4335**

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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	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
Mobile	0.9184	4.6507	11.8517	0.0376	3.0334	0.0445	3.0780	0.8116	0.0419	0.8536		3,813.1710	3,813.1710	0.2099		3,818.4176
Total	**1.0931**	**4.6507**	**11.8587**	**0.0376**	**3.0334**	**0.0446**	**3.0780**	**0.8116**	**0.0419**	**0.8536**		**3,813.1859**	**3,813.1859**	**0.2099**	**0.0000**	**3,818.4335**

	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	N20	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	4/6/2017	4/11/2017	5	4	
2	Building Construction	Building Construction	4/12/2017	1/16/2018	5	200	
3	Paving	Paving	1/17/2018	1/30/2018	5	10	
4	Architectural Coating	Architectural Coating	1/31/2018	2/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.53

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,750; Non-Residential Outdoor: 3,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	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	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	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	3	8.00	0.00	62.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	30.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039		1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**		**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

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	0.1659	5.3478	1.0876	0.0123	0.2707	0.0291	0.2998	0.0742	0.0278	0.1020		1,324.4068	1,324.4068	0.1022		1,326.9613
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	0.0526	0.0389	0.4163	9.5000e-004	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		94.0992	94.0992	3.5700e-003		94.1884
Total	**0.2185**	**5.3866**	**1.5039**	**0.0132**	**0.3602**	**0.0298**	**0.3900**	**0.0979**	**0.0285**	**0.1264**		**1,418.5060**	**1,418.5060**	**0.1058**		**1,421.1498**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039	0.0000	1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**	**0.0000**	**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

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	0.1659	5.3478	1.0876	0.0123	0.2707	0.0291	0.2998	0.0742	0.0278	0.1020		1,324.4068	1,324.4068	0.1022		1,326.9613
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	0.0526	0.0389	0.4163	9.5000e-004	0.0894	7.4000e-004	0.0902	0.0237	6.8000e-004	0.0244		94.0992	94.0992	3.5700e-003		94.1884
Total	**0.2185**	**5.3866**	**1.5039**	**0.0132**	**0.3602**	**0.0298**	**0.3900**	**0.0979**	**0.0285**	**0.1264**		**1,418.5060**	**1,418.5060**	**0.1058**		**1,421.1498**

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	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**		**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

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	0.0611	1.5581	0.4520	3.0500e-003	0.0768	0.0137	0.0904	0.0221	0.0131	0.0352		324.8003	324.8003	0.0258		325.4457
Worker	0.1974	0.1458	1.5610	3.5500e-003	0.3353	2.7800e-003	0.3381	0.0889	2.5700e-003	0.0915		352.8719	352.8719	0.0134		353.2066
Total	**0.2585**	**1.7039**	**2.0130**	**6.6000e-003**	**0.4121**	**0.0164**	**0.4286**	**0.1110**	**0.0156**	**0.1267**		**677.6722**	**677.6722**	**0.0392**		**678.6523**

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	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875	0.0000	2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**	**0.0000**	**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

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	0.0611	1.5581	0.4520	3.0500e-003	0.0768	0.0137	0.0904	0.0221	0.0131	0.0352		324.8003	324.8003	0.0258		325.4457
Worker	0.1974	0.1458	1.5610	3.5500e-003	0.3353	2.7800e-003	0.3381	0.0889	2.5700e-003	0.0915		352.8719	352.8719	0.0134		353.2066
Total	**0.2585**	**1.7039**	**2.0130**	**6.6000e-003**	**0.4121**	**0.0164**	**0.4286**	**0.1110**	**0.0156**	**0.1267**		**677.6722**	**677.6722**	**0.0392**		**678.6523**

3.3 Building Construction - 2018

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.0538	1.4610	0.4087	3.0300e-003	0.0768	0.0108	0.0876	0.0221	0.0104	0.0325		323.5696	323.5696	0.0246		324.1834
Worker	0.1758	0.1270	1.3677	3.4500e-003	0.3353	2.6900e-003	0.3380	0.0889	2.4800e-003	0.0914		342.9758	342.9758	0.0118		343.2694
Total	**0.2296**	**1.5880**	**1.7764**	**6.4800e-003**	**0.4121**	**0.0135**	**0.4256**	**0.1110**	**0.0128**	**0.1239**		**666.5453**	**666.5453**	**0.0363**		**667.4528**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.0538	1.4610	0.4087	3.0300e-003	0.0768	0.0108	0.0876	0.0221	0.0104	0.0325		323.5696	323.5696	0.0246		324.1834
Worker	0.1758	0.1270	1.3677	3.4500e-003	0.3353	2.6900e-003	0.3380	0.0889	2.4800e-003	0.0914		342.9758	342.9758	0.0118		343.2694
Total	**0.2296**	**1.5880**	**1.7764**	**6.4800e-003**	**0.4121**	**0.0135**	**0.4256**	**0.1110**	**0.0128**	**0.1239**		**666.5453**	**666.5453**	**0.0363**		**667.4528**

3.4 Paving - 2018

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3300**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

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	0.0762	0.0550	0.5927	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		148.6228	148.6228	5.0900e-003		148.7501
Total	**0.0762**	**0.0550**	**0.5927**	**1.4900e-003**	**0.1453**	**1.1700e-003**	**0.1465**	**0.0385**	**1.0700e-003**	**0.0396**		**148.6228**	**148.6228**	**5.0900e-003**		**148.7501**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3300**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

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	0.0762	0.0550	0.5927	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		148.6228	148.6228	5.0900e-003		148.7501
Total	**0.0762**	**0.0550**	**0.5927**	**1.4900e-003**	**0.1453**	**1.1700e-003**	**0.1465**	**0.0385**	**1.0700e-003**	**0.0396**		**148.6228**	**148.6228**	**5.0900e-003**		**148.7501**

3.5 Architectural Coating - 2018

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	7.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**8.1874**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

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	0.0352	0.0254	0.2736	6.9000e-004	0.0671	5.4000e-004	0.0676	0.0178	5.0000e-004	0.0183		68.5952	68.5952	2.3500e-003		68.6539

Total	**0.0352**	**0.0254**	**0.2736**	**6.9000e-004**	**0.0671**	**5.4000e-004**	**0.0676**	**0.0178**	**5.0000e-004**	**0.0183**		**68.5952**	**68.5952**	**2.3500e-003**		**68.6539**

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	7.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**8.1874**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

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	0.0352	0.0254	0.2736	6.9000e-004	0.0671	5.4000e-004	0.0676	0.0178	5.0000e-004	0.0183		68.5952	68.5952	2.3500e-003		68.6539
Total	**0.0352**	**0.0254**	**0.2736**	**6.9000e-004**	**0.0671**	**5.4000e-004**	**0.0676**	**0.0178**	**5.0000e-004**	**0.0183**		**68.5952**	**68.5952**	**2.3500e-003**		**68.6539**

4.0 Operational Detail - Mobile

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	0.9184	4.6507	11.8517	0.0376	3.0334	0.0445	3.0780	0.8116	0.0419	0.8536		3,813.1710	3,813.1710	0.2099		3,818.4176
Unmitigated	0.9184	4.6507	11.8517	0.0376	3.0334	0.0445	3.0780	0.8116	0.0419	0.8536		3,813.1710	3,813.1710	0.2099		3,818.4176

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Commercial	450.00	450.00	450.00	1,427,189	1,427,189
Total	450.00	450.00	450.00	1,427,189	1,427,189

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	16.60	8.40	6.90	4.00	95.00	1.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Other Non-Asphalt Surfaces	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Parking Lot	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

User Defined Commercial	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

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	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
NaturalGas Unmitigated	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

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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

Total		**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**

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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
Total		**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**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Unmitigated	0.1747	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159

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	0.0216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Total	**0.1747**	**7.0000e-005**	**7.0100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0149**	**0.0149**	**4.0000e-005**		**0.0159**

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	0.0216					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6000e-004	7.0000e-005	7.0100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Total	**0.1747**	**7.0000e-005**	**7.0100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0149**	**0.0149**	**4.0000e-005**		**0.0159**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnymead Blvd Car Wash

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.15	6,500.00	0
Other Non-Asphalt Surfaces	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	52.00	1000sqft	1.19	52,000.00	0
	0.00		0.00		0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined Commercial: Car Wash

Construction Phase -

Trips and VMT - urban area, shorter hauling length

Grading -

Vehicle Trips - car wash trip generation from SANDAG study

Energy Use - Car wash electricity assumes 4.2312 kWH/vehicle (based on 'Professional Carwashing & Detailing' case study) + a conservative estimate for vacuum station energy consumption

Water And Wastewater - given recycling/reclaiming of water (90% estimated by client), 20 gal/vehicle fresh water is assumed (and this is quite conservative, it is probably less)
urban area, no septic tanks

Solid Waste - using CalEEMod's "Gasoline/Service Station" rate of 3.00 tons/1000sqft building

Sequestration - from site plan

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.00	150.00
tblFleetMix	FleetMixLandUseSubType	User Defined Commercial	
tblFleetMix	FleetMixLandUseSubType		User Defined Commercial
tblLandUse	BuildingSpaceSquareFeet	0.00	6,500.00
tblLandUse	LandUseSquareFeet	0.00	6,500.00
tblLandUse	LotAcreage	0.00	0.15
tblProjectCharacteristics	OperationalYear	2018	2019
tblSequestration	NumberOfNewTrees	0.00	74.00
tblSolidWaste	SolidWasteGenerationRate	0.00	19.50
tblTripsAndVMT	HaulingTripNumber	0.00	62.00
tblVehicleTrips	CC_TTP	0.00	95.00
tblVehicleTrips	CNW_TTP	0.00	1.00
tblVehicleTrips	CW_TTP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	450.00
tblVehicleTrips	SU_TR	0.00	450.00
tblVehicleTrips	WD_TR	0.00	450.00
tblWater	AerobicPercent	87.46	97.79
tblWater	AerobicPercent	87.46	97.79
tblWater	IndoorWaterUseRate	0.00	282,243.00
tblWater	OutdoorWaterUseRate	0.00	209,040.00
tblWater	OutdoorWaterUseRate	0.00	3,285,000.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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	0.3048	2.0192	1.5575	2.7600e-003	0.0486	0.1191	0.1677	0.0155	0.1148	0.1303	0.0000	238.2009	238.2009	0.0409	0.0000	239.2240
2018	0.0649	0.1770	0.1527	2.7000e-004	3.4700e-003	0.0102	0.0137	9.3000e-004	9.7800e-003	0.0107	0.0000	23.1243	23.1243	4.4400e-003	0.0000	23.2353
Maximum	**0.3048**	**2.0192**	**1.5575**	**2.7600e-003**	**0.0486**	**0.1191**	**0.1677**	**0.0155**	**0.1148**	**0.1303**	**0.0000**	**238.2009**	**238.2009**	**0.0409**	**0.0000**	**239.2240**

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	0.3048	2.0192	1.5575	2.7600e-003	0.0486	0.1191	0.1677	0.0155	0.1148	0.1303	0.0000	238.2007	238.2007	0.0409	0.0000	239.2238
2018	0.0649	0.1770	0.1527	2.7000e-004	3.4700e-003	0.0102	0.0137	9.3000e-004	9.7800e-003	0.0107	0.0000	23.1243	23.1243	4.4400e-003	0.0000	23.2353
Maximum	**0.3048**	**2.0192**	**1.5575**	**2.7600e-003**	**0.0486**	**0.1191**	**0.1677**	**0.0155**	**0.1148**	**0.1303**	**0.0000**	**238.2007**	**238.2007**	**0.0409**	**0.0000**	**239.2238**

	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	N20	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2017	6-6-2017	0.5370	0.5370
2	6-7-2017	9-6-2017	0.7927	0.7927
3	9-7-2017	12-6-2017	0.7850	0.7850
4	12-7-2017	3-6-2018	0.4514	0.4514
		Highest	0.7927	0.7927

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	0.0319	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	325.2360	325.2360	0.0134	2.7800e-003	326.3996
Mobile	0.1628	0.8626	2.1873	6.9300e-003	0.5421	8.0600e-003	0.5501	0.1453	7.5900e-003	0.1529	0.0000	638.0452	638.0452	0.0345	0.0000	638.9074
Waste						0.0000	0.0000		0.0000	0.0000	3.9583	0.0000	3.9583	0.2339	0.0000	9.8066
Water						0.0000	0.0000		0.0000	0.0000	0.0999	13.5395	13.6393	3.1700e-003	3.3000e-004	13.8177
Total	**0.1946**	**0.8626**	**2.1882**	**6.9300e-003**	**0.5421**	**8.0600e-003**	**0.5501**	**0.1453**	**7.5900e-003**	**0.1529**	**4.0582**	**976.8223**	**980.8805**	**0.2850**	**3.1100e-003**	**988.9331**

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	0.0319	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	325.2360	325.2360	0.0134	2.7800e-003	326.3996
Mobile	0.1628	0.8626	2.1873	6.9300e-003	0.5421	8.0600e-003	0.5501	0.1453	7.5900e-003	0.1529	0.0000	638.0452	638.0452	0.0345	0.0000	638.9074
Waste						0.0000	0.0000		0.0000	0.0000	3.9583	0.0000	3.9583	0.2339	0.0000	9.8066
Water						0.0000	0.0000		0.0000	0.0000	0.0999	8.6364	8.7362	2.9700e-003	2.9000e-004	8.8971
Total	**0.1946**	**0.8626**	**2.1882**	**6.9300e-003**	**0.5421**	**8.0600e-003**	**0.5501**	**0.1453**	**7.5900e-003**	**0.1529**	**4.0582**	**971.9193**	**975.9774**	**0.2848**	**3.0700e-003**	**984.0125**

	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	N20	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**	**0.50**	**0.50**	**0.07**	**1.29**	**0.50**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	54.3160
Total	**54.3160**

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	4/6/2017	4/11/2017	5	4	
2	Building Construction	Building Construction	4/12/2017	1/16/2018	5	200	

3	Paving	Paving	1/17/2018	1/30/2018	5	10	
4	Architectural Coating	Architectural Coating	1/31/2018	2/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.53

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,750; Non-Residential Outdoor: 3,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	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	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	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	3	8.00	0.00	62.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	30.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0366	0.0141	3.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	2.6216	2.6216	8.0000e-004	0.0000	2.6417
Total	**3.2000e-003**	**0.0366**	**0.0141**	**3.0000e-005**	**9.8300e-003**	**1.7500e-003**	**0.0116**	**5.0500e-003**	**1.6100e-003**	**6.6600e-003**	**0.0000**	**2.6216**	**2.6216**	**8.0000e-004**	**0.0000**	**2.6417**

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	3.3000e-004	0.0109	2.0900e-003	2.0000e-005	5.3000e-004	6.0000e-005	5.9000e-004	1.5000e-004	6.0000e-005	2.0000e-004	0.0000	2.4257	2.4257	1.8000e-004	0.0000	2.4303
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	1.0000e-004	8.0000e-005	8.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1734	0.1734	1.0000e-005	0.0000	0.1736
Total	**4.3000e-004**	**0.0110**	**2.9400e-003**	**2.0000e-005**	**7.1000e-004**	**6.0000e-005**	**7.7000e-004**	**2.0000e-004**	**6.0000e-005**	**2.5000e-004**	**0.0000**	**2.5991**	**2.5991**	**1.9000e-004**	**0.0000**	**2.6038**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0366	0.0141	3.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	2.6216	2.6216	8.0000e-004	0.0000	2.6417
Total	**3.2000e-003**	**0.0366**	**0.0141**	**3.0000e-005**	**9.8300e-003**	**1.7500e-003**	**0.0116**	**5.0500e-003**	**1.6100e-003**	**6.6600e-003**	**0.0000**	**2.6216**	**2.6216**	**8.0000e-004**	**0.0000**	**2.6417**

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	3.3000e-004	0.0109	2.0900e-003	2.0000e-005	5.3000e-004	6.0000e-005	5.9000e-004	1.5000e-004	6.0000e-005	2.0000e-004	0.0000	2.4257	2.4257	1.8000e-004	0.0000	2.4303
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	1.0000e-004	8.0000e-005	8.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1734	0.1734	1.0000e-005	0.0000	0.1736
Total	**4.3000e-004**	**0.0110**	**2.9400e-003**	**2.0000e-005**	**7.1000e-004**	**6.0000e-005**	**7.7000e-004**	**2.0000e-004**	**6.0000e-005**	**2.5000e-004**	**0.0000**	**2.5991**	**2.5991**	**1.9000e-004**	**0.0000**	**2.6038**

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	0.2787	1.8082	1.3495	2.0700e-003		0.1158	0.1158		0.1116	0.1116	0.0000	174.2913	174.2913	0.0367	0.0000	175.2075
Total	**0.2787**	**1.8082**	**1.3495**	**2.0700e-003**		**0.1158**	**0.1158**		**0.1116**	**0.1116**	**0.0000**	**174.2913**	**174.2913**	**0.0367**	**0.0000**	**175.2075**

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	5.6200e-003	0.1493	0.0406	2.9000e-004	7.1100e-003	1.2700e-003	8.3800e-003	2.0500e-003	1.2200e-003	3.2700e-003	0.0000	28.1243	28.1243	2.1200e-003	0.0000	28.1774
Worker	0.0168	0.0141	0.1503	3.4000e-004	0.0309	2.6000e-004	0.0312	8.2200e-003	2.4000e-004	8.4600e-003	0.0000	30.5647	30.5647	1.1600e-003	0.0000	30.5936
Total	**0.0224**	**0.1634**	**0.1910**	**6.3000e-004**	**0.0381**	**1.5300e-003**	**0.0396**	**0.0103**	**1.4600e-003**	**0.0117**	**0.0000**	**58.6889**	**58.6889**	**3.2800e-003**	**0.0000**	**58.7710**

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	0.2787	1.8082	1.3495	2.0700e-003		0.1158	0.1158		0.1116	0.1116	0.0000	174.2911	174.2911	0.0367	0.0000	175.2073

Total	**0.2787**	**1.8082**	**1.3495**	**2.0700e-003**		**0.1158**	**0.1158**		**0.1116**	**0.1116**	**0.0000**	**174.2911**	**174.2911**	**0.0367**	**0.0000**	**175.2073**

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	5.6200e-003	0.1493	0.0406	2.9000e-004	7.1100e-003	1.2700e-003	8.3800e-003	2.0500e-003	1.2200e-003	3.2700e-003	0.0000	28.1243	28.1243	2.1200e-003	0.0000	28.1774
Worker	0.0168	0.0141	0.1503	3.4000e-004	0.0309	2.6000e-004	0.0312	8.2200e-003	2.4000e-004	8.4600e-003	0.0000	30.5647	30.5647	1.1600e-003	0.0000	30.5936
Total	**0.0224**	**0.1634**	**0.1910**	**6.3000e-004**	**0.0381**	**1.5300e-003**	**0.0396**	**0.0103**	**1.4600e-003**	**0.0117**	**0.0000**	**58.6889**	**58.6889**	**3.2800e-003**	**0.0000**	**58.7710**

3.3 Building Construction - 2018

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	0.0156	0.1046	0.0833	1.3000e-004		6.3500e-003	6.3500e-003		6.1300e-003	6.1300e-003	0.0000	11.0541	11.0541	2.2300e-003	0.0000	11.1097
Total	**0.0156**	**0.1046**	**0.0833**	**1.3000e-004**		**6.3500e-003**	**6.3500e-003**		**6.1300e-003**	**6.1300e-003**	**0.0000**	**11.0541**	**11.0541**	**2.2300e-003**	**0.0000**	**11.1097**

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	3.2000e-004	8.9300e-003	2.3400e-003	2.0000e-005	4.5000e-004	6.0000e-005	5.2000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.7891	1.7891	1.3000e-004	0.0000	1.7924
Worker	9.5000e-004	7.8000e-004	8.4200e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.8963	1.8963	6.0000e-005	0.0000	1.8979
Total	**1.2700e-003**	**9.7100e-003**	**0.0108**	**4.0000e-005**	**2.4200e-003**	**8.0000e-005**	**2.5100e-003**	**6.5000e-004**	**7.0000e-005**	**7.3000e-004**	**0.0000**	**3.6854**	**3.6854**	**1.9000e-004**	**0.0000**	**3.6903**

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	0.0156	0.1046	0.0833	1.3000e-004		6.3500e-003	6.3500e-003		6.1300e-003	6.1300e-003	0.0000	11.0541	11.0541	2.2300e-003	0.0000	11.1097
Total	**0.0156**	**0.1046**	**0.0833**	**1.3000e-004**		**6.3500e-003**	**6.3500e-003**		**6.1300e-003**	**6.1300e-003**	**0.0000**	**11.0541**	**11.0541**	**2.2300e-003**	**0.0000**	**11.1097**

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	3.2000e-004	8.9300e-003	2.3400e-003	2.0000e-005	4.5000e-004	6.0000e-005	5.2000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.7891	1.7891	1.3000e-004	0.0000	1.7924
Worker	9.5000e-004	7.8000e-004	8.4200e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.8963	1.8963	6.0000e-005	0.0000	1.8979
Total	**1.2700e-003**	**9.7100e-003**	**0.0108**	**4.0000e-005**	**2.4200e-003**	**8.0000e-005**	**2.5100e-003**	**6.5000e-004**	**7.0000e-005**	**7.3000e-004**	**0.0000**	**3.6854**	**3.6854**	**1.9000e-004**	**0.0000**	**3.6903**

3.4 Paving - 2018

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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	1.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6500e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

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	3.4000e-004	2.8000e-004	3.0400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6848	0.6848	2.0000e-005	0.0000	0.6854
Total	**3.4000e-004**	**2.8000e-004**	**3.0400e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6848**	**0.6848**	**2.0000e-005**	**0.0000**	**0.6854**

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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	1.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6500e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

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	3.4000e-004	2.8000e-004	3.0400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6848	0.6848	2.0000e-005	0.0000	0.6854
Total	**3.4000e-004**	**2.8000e-004**	**3.0400e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6848**	**0.6848**	**2.0000e-005**	**0.0000**	**0.6854**

3.5 Architectural Coating - 2018

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	0.0394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.0409**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

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	1.6000e-004	1.3000e-004	1.4000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3161	0.3161	1.0000e-005	0.0000	0.3163
Total	**1.6000e-004**	**1.3000e-004**	**1.4000e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3161**	**0.3161**	**1.0000e-005**	**0.0000**	**0.3163**

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	0.0394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.0409**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

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	1.6000e-004	1.3000e-004	1.4000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3161	0.3161	1.0000e-005	0.0000	0.3163
Total	**1.6000e-004**	**1.3000e-004**	**1.4000e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3161**	**0.3161**	**1.0000e-005**	**0.0000**	**0.3163**

4.0 Operational Detail - Mobile

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	0.1628	0.8626	2.1873	6.9300e-003	0.5421	8.0600e-003	0.5501	0.1453	7.5900e-003	0.1529	0.0000	638.0452	638.0452	0.0345	0.0000	638.9074
Unmitigated	0.1628	0.8626	2.1873	6.9300e-003	0.5421	8.0600e-003	0.5501	0.1453	7.5900e-003	0.1529	0.0000	638.0452	638.0452	0.0345	0.0000	638.9074

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Commercial	450.00	450.00	450.00	1,427,189	1,427,189
Total	450.00	450.00	450.00	1,427,189	1,427,189

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	16.60	8.40	6.90	4.00	95.00	1.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Other Non-Asphalt Surfaces	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
Parking Lot	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989
User Defined Commercial	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

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	325.2360	325.2360	0.0134	2.7800e-003	326.3996
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	325.2360	325.2360	0.0134	2.7800e-003	326.3996
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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
Total		**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**

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					
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
User Defined Commercial	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	45760	14.5801	6.0000e-004	1.2000e-004	14.6323
User Defined Commercial	975000	310.6559	0.0128	2.6500e-003	311.7673
Total		**325.2360**	**0.0134**	**2.7700e-003**	**326.3996**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	45760	14.5801	6.0000e-004	1.2000e-004	14.6323
User Defined Commercial	975000	310.6559	0.0128	2.6500e-003	311.7673
Total		**325.2360**	**0.0134**	**2.7700e-003**	**326.3996**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.0319	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Unmitigated	0.0319	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-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	3.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Total	**0.0318**	**1.0000e-005**	**8.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**0.0000**	**1.8000e-003**

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	3.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Total	**0.0318**	**1.0000e-005**	**8.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**0.0000**	**1.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	8.7362	2.9700e-003	2.9000e-004	8.8971
Unmitigated	13.6393	3.1700e-003	3.3000e-004	13.8177

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0.20904	0.7400	3.0000e-005	1.0000e-005	0.7426
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	0.282243 / 3.285	12.8993	3.1400e-003	3.3000e-004	13.0751
Total		**13.6393**	**3.1700e-003**	**3.4000e-004**	**13.8177**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0.126173	0.4466	2.0000e-005	0.0000	0.4482
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	0.282243 / 1.98277	8.2896	2.9500e-003	2.9000e-004	8.4489
Total		**8.7362**	**2.9700e-003**	**2.9000e-004**	**8.8971**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.9583	0.2339	0.0000	9.8066
Unmitigated	3.9583	0.2339	0.0000	9.8066

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	19.5	3.9583	0.2339	0.0000	9.8066
Total		**3.9583**	**0.2339**	**0.0000**	**9.8066**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	19.5	3.9583	0.2339	0.0000	9.8066
Total		**3.9583**	**0.2339**	**0.0000**	**9.8066**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	54.3160	0.0000	0.0000	54.3160

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	74	54.3160	0.0000	0.0000	54.3160
Total		**54.3160**	**0.0000**	**0.0000**	**54.3160**

Appendix B Biological Resource Assessment

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Sunnymead Boulevard Car Wash
MSHCP Biological Resource Assessment and Consistency Analysis

Prepared for:
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Date:
March 15, 2017

Contents

List of Attachments

1 Introduction

The purpose of this Biological Resource Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis is to verify the type, location, and extent of potential sensitive biological resources within the 1.67 acre Sunnymead Boulevard Car Wash Project Site (Project Site) and vicinity. An MSHCP burrowing owl habitat assessment (MSHCP 2006) was also completed to determine the potential for burrowing owl to occur on the Project Site. This report has been conducted in response to the requirements outlined in the City of Moreno Valley Pre-Project Review Staff Committee Meeting (P16-069: P15).

MIG conducted a field survey of the Project Site on March 8, 2017. This report provides information regarding the location, extent, and condition of biological resources occurring on the Project Site. This report provides a thorough description of the biological setting of the site and surrounding area, as well as a description of the vegetation communities, wildlife, potential movement/migration corridors, special status species, sensitive natural communities, and potentially jurisdictional waters and wetlands. An assessment of the project impacts and recommended mitigation measures to avoid, minimize, or compensate for potential adverse impacts to sensitive habitats and species is also included in the report. The evaluation of potential project impacts follows the checklist items from Appendix G of the California Environmental Quality Act (CEQA) guidelines and has been prepared in a format suitable to support CEQA review and to submit with any future regulatory application packages that might be required.

1.1 Project Location

The 1.67 acre Project Site is located north of Sunnymead Boulevard, and west of Heacock Street in the City of Moreno Valley, Riverside County, California, APN 292-160-023 (Attachment E-1, Regional Map; Attachment E-2, Project Site Map). The Project Site occurs within the US Geological Survey (USGS) 7.5' series Sunnymead Quadrangle, Township 3 South, Range 4 West, Section 1. The Project Site is flat, with elevations ranging between approximately 1,640 - 1,647 feet above mean sea level (AMSL). No prominent surface water features occur in the vicinity of the Project Site.

Most the Project Site is vacant (1.43 acres) and receives frequent disturbance from disking. Portions of the Project Site are paved (0.24 acres). Commercial land uses border the Project Site to the east, west, and south. State Road 60 is located to the north.

2 Regulatory Setting

The following discussion identifies federal, state, and local environmental regulations that serve to protect sensitive biological resources relevant to the proposed Project Site and CEQA review process.

2.1 Federal

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under the FESA. The FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), (3) prohibitions against "taking" (meaning harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". The FESA also discusses recovery plans and the designation of critical habitat for listed species. Section 7 requires Federal agencies, in consultation with, and with the assistance of the USFWS or NOAA Fisheries, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Both the USFWS and NOAA Fisheries share the responsibility for administration of the FESA.

2.1.2 The Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10, prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term "take" is defined as meaning, "to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires." With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that cause nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

2.2 State

2.2.1 California Endangered Species Act

The State of California enacted similar laws to the FESA, the California Native Plant Protection Act (NPPA) in 1977, and the California Endangered Species Act (CESA) in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with the FESA, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species, but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The California Department of Fish and Wildlife (CDFW) implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the California Natural Diversity Database (CNDDB), a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities. During the CEQA review

process, the CDFW is given the opportunity to comment on the potential of the proposed Project to affect listed plants and animals.

2.2.2 Native Plant Protection Act

The NPPA of 1977 (California Fish and Game Code, §§ 1900 through 1913) directed the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take."

2.2.3 California Environmental Quality Act

CEQA was enacted in 1970 to provide for full disclosure of environmental impacts to the public before issuance of a permit by state and local public agencies. CEQA (Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an Initial Study and Negative Declaration (or Mitigated Negative Declaration) or with an Environmental Impact Report. Certain classes of projects are exempt from detailed analysis under CEQA. CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species Acts but that meet specified criteria.

2.2.4 Fully Protected Species and Species of Special Concern

The classification of "fully protected" was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with "fully protected" species states that these species "…may not be taken or possessed at any time and 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 species," (CDFW Fish and Game Commission 1998) although "take" may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize "take" resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review.

2.2.5 California Fish and Wildlife Code Sections 3503 and 3513

According to Section 3503 of the California Fish and Wildlife Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*)). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the "take" or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW.

2.2.6 Other Sensitive Plants – California Native Plant Society

The California Native Plant Society, a non-profit plant conservation organization, publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California in both hard copy and electronic version (CNPS 2017).

The Inventory assigns plants to the following categories:

1A Presumed extinct in California;
1B Rare, threatened, or endangered in California and elsewhere;
2 Rare, threatened, or endangered in California, but more common elsewhere;
3 Plants for which more information is needed – a review list; and
4 Plants of limited distribution – a watch list.

Additional endangerment codes are assigned to each taxon as follows:

1 Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat);
2 Fairly endangered in California (20-80% occurrences threatened);
3 Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and the CDFW, as well as other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the California Fish and Game Code. California Rare Plant Rank 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents (CNPS 2017).

2.2.7 National Pollutant Discharge Elimination System (NPDES)

The NPDES program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. These are considered point-sources from a regulatory standpoint. Generally, these permits are issued and monitored under the oversight of the State Water Resources Control Board (SWRCB) and administered by each regional water quality control board. Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the state's General Permit for Dischargers of Storm Water Associated with Construction Activity. All dischargers are required to obtain coverage under the Construction General Permit. The activities

covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) with a monitoring program. The project will require coverage under the Construction General Permit.

2.2.8 Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW (i.e., CNDDB) or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority (Holland 1986; CDFW 2017). Impacts to sensitive natural communities and habitats must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

2.3 Local

2.3.1 Western Riverside County Multi-Species Habitat Conservation Plan

In June of 2003, the Riverside County Board of Supervisors adopted a comprehensive MSHCP to provide a regional conservation solution to species and habitat issues that have historically threatened to stall infrastructure and land use development. The MSHCP is a multi-jurisdictional effort that encompasses approximately 1.26 million acres (1,966 square miles) and includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of fourteen cities, including the City of Moreno Valley (Western Riverside County MSHCP 2004).

2.3.2 City of Moreno Valley General Plan

The Project Site occurs within the Central Planning Area of the City of Moreno Valley General Plan. The following measures have been developed to provide assurances that potential significant biological impacts associated with the implementation of the proposed General Plan Update will be mitigated. Subsequent project-level environmental review could identify more detailed site-specific mitigation measures.

B1. The City and all future public and private development projects within the City shall comply with the Long-term HCP for the Stephen's Kangaroo Rat.

B2. The City shall comply with the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) and the associated state and federal permits.

B3. Where feasible, projects shall be designed to minimize impacts on sensitive habitat.

B4. Prior to physical disturbance of any natural drainage course or wetland determined to contain riparian vegetation or otherwise qualify as a "jurisdictional" wetland or non-wetland Water of the U.S., the applicant shall obtain a Streambed Alteration Agreement (SAA) and/or permit, or written waiver of the requirement for such an agreement or permit, from all resource agencies with jurisdiction over such areas (CDFW and United States Army Corps of Engineers [USACE]).

3 Methods

This analysis of potential biological resources located on the Project Site includes a review of available background information in and around the vicinity of the Project Site and completion of a field survey.

3.1 Literature Review

Prior to conducting field surveys, MIG biologists reviewed available background information pertaining to the biological resources in and around the vicinity of the Project Site. Available literature and resource mapping reviewed include the occurrence records for special-status species and sensitive natural communities as listed below:

- CDFW CNDDB (2017) record search of the Sunnymead and surrounding USGS 7.5-Minute Quadrangles
- CNPS Online Inventory (CNPS 2017)
- Soil Survey Staff, Natural Resource Conservation Service (NRCS), United States Department of Agricultural (USDA) (Soil Survey Staff 2017)
- State & Federally Listed Endangered & Threatened Animals of California (CDFW 2017a)
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2017b)
- CDFW Natural Communities List (CDFW 2010)
- US Fish & Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2017a)
- USFWS, Carlsbad Office, Threatened and Endangered Species (USFWS 2017b)
- Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al. 2012)
- Riverside County Integrated Project (RCIP) Conservation Report Summary Generator (MSHCP RCIP 2017)
- Western Riverside County MHSCP Burrowing Owl Survey Instructions (MSHCP 2006)

3.2 Field Surveys

A field survey was conducted by MIG biologists Jonathan Campbell, PhD, and Hayden Agnew-Wieland on March 8, 2017. The field survey was conducted to perform an MSHCP burrowing owl habitat assessment survey, assess the existing conditions of the Project Site, record observed plant and wildlife species, characterize and delineate vegetation communities and associated wildlife habitats, and evaluate the potential for these habitats to support special-status species and sensitive habitats.

3.2.1 Plant Communities

During the field survey, MIG biologists traversed the entire Project Site by foot and evaluated the suitability of onsite vegetation communities to support special status species documented in the vicinity of Project Site. Plant communities were preliminarily mapped with the aid of an aerial photograph using the MSHCP uncollapsed vegetation community classification system and Holland (1986)/CDFW (2010) vegetation community classification systems when appropriate. When a vegetation community could not be accurately characterized using this information, an updated community classification code was developed to more accurately represent onsite habitat types.

3.2.2 Sensitive Plant Species

Sensitive plant species include those (1) listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the FESA; (2) listed or proposed for listing as rare, threatened, or endangered by the CDFW under the CESA; (3) occurring on List 1A, List 1B, List 2, List 3,

or List 4 of the CNPS Inventory; and (4) occurring within an MSHCP narrow endemic and/or criteria area species Survey Area (Section 6.1.2 and 6.1.3).

3.2.3 Sensitive Wildlife Species

Sensitive wildlife species include those (1) listed, proposed for listing or candidates for listing as threatened or endangered by the USFWS or NOAA Fisheries under FESA; (2) listed or proposed for listing as rare, threatened, endangered, fully protected, or species of special concern by the CDFW under CESA; and (3) birds protected by the USFWS under the MTBA and/or by the CDFW under Fish and Game Code Sections 3503 and 3513.

In accordance with the MSHCP Burrowing Owl Survey Instructions (MSHCP 2006), the burrowing owl survey protocol consists of two steps: Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. Step II is comprised of two parts, Part A: Focused Burrow Surveys and Part B: Focused Burrowing Owl Surveys. In addition to complying with MSHCP survey guidelines, the protocol was augmented to ensure compliance with the CDFW updated Staff Report on Burrowing Owl Mitigation breeding season survey guidelines (CDFW 2012). As required by the City of Moreno Valley Pre-Project Review Staff Committee Meeting (P16-069: P15a), the Step I - Habitat Assessment surveys consisted of a walking survey to determine if suitable habitat is present onsite. Upon arrival at the Project Site, and prior to initiating the assessment survey, surveyors used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence. All suitable areas of the Project Site were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea taxus*), but they often utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

3.2.1 MSHCP Riparian/Riverine Resources, Vernal Pools, and Jurisdictional Resources

This report provides a general review of topographic features and habitats observed onsite that could be subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA, and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. A formal jurisdictional delineation was not undertaken as part of this effort.

Habitats were also assessed to determine if MSHCP riparian/riverine resources and/or vernal pools, pursuant to section 6.1.2 of the MSHCP (2004) are present onsite. Riparian/riverine resources are those lands that 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. Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of

hydrology and/or vegetation during the drier portion of the growing season (MSHCP 2004). In addition, stock ponds, ephemeral pools, and other areas of potential fairy shrimp habitat are noted, if applicable.

3.2.2 Wildlife Corridors and Urban/Wildland Interface

Providing functional habitat connectivity between natural areas is essential to sustaining healthy wildlife populations and allowing for the continued dispersal of native plant and animal species. The regional movement and migration of wildlife species has been substantially altered due to habitat fragmentation over the past century. This fragmentation is most commonly caused by development of open areas, which can result in large patches of land becoming inaccessible and forming a virtual barrier between undeveloped areas. Additional roads associated with development, although narrow, may result in barriers to smaller or less mobile wildlife species. Habitat fragmentation results in isolated islands of habitat, which affects wildlife behavior, foraging activity, reproductive patterns, immigration and emigration or dispersal capabilities, and survivability. Wildlife corridors can consist of a sequence of stepping-stones across the landscape (i.e., discontinuous areas of habitat such as isolated wetlands), continuous lineal strips of vegetation and habitat (e.g., riparian strips and ridge lines), or they may be parts of larger habitat areas selected for its known or likely importance to local wildlife.

4 Existing Conditions

The following provides a description of the soils, vegetation communities, wildlife, and wildlife movement corridors present on the Project Site.

4.1 Soils

The Web Soil Survey reports the following soils within the boundary of the Project Site, as shown on Attachment E-5, Soils Map (Soil Survey Staff, NRCS, USDA 2017):

- Greenfield sandy loam, 0 to 2 percent slopes (GyA): 0.50 ac
- Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2): 1.17 ac

4.2 Plant Communities

Natural community names and hierarchical structure follows the CDFW "List of California Terrestrial Natural Communities" or Holland (1986) classification systems, which have been refined and augmented where appropriate to better characterize the habitat types observed onsite when not addressed by the MSHCP classification system.

4.2.1 Disturbed (1.43 acres)

The majority of the Project Site receives frequent disturbance from disking (Attachment E-6, Biological Resources Map and Attachment E-7, Current Project Site Photographs). Plant species growing in these areas consist primarily of non-native, invasive species including cheeseweed (*Malva parviflora*), wild radish (*Raphanus sativus*), foxtail barley (*Hordeum murinum*), common Mediterranean grass (*Schismus barbatus*), London rocket (*Sysimbrium irio*), summer mustard (*Hirschfeldia incana*), English plantain (*Plantago lanceolata*), Russian thistle (*Salsola tragus*), red-stemmed filaree (*Erodium cicutarium*), wild oats (*Avena fatua*), cheatgrass (*Bromus tectorum*), wild lettuce (*Lactuca serriola*), Peruvian pepper tree (*Schinus molle*), tamarisk (*Tamarix ramosissima*), and Mexican palo verde (*Parkinsonia aculeata*). Native species are found occasionally throughout this community and include California fan palm (*Washingtonia filifera*), common fiddleneck (*Amsinckia intermedia*), common bedstraw (*Galium aparine*), horseweed (*Erigeron canadensis*), telegraph weed (*Heterotheca grandiflora*), and pineapple weed (*Matricaria discoidea*).

4.2.2 Paved (0.24 acres)

Portions of the eastern boundary of the Project Site are paved (Attachment E-6, Biological Resources Map and Attachment E-7, Current Project Site Photographs). Ornamental species, such as red gum (*Eucalyptus camaldulensis*), ash (Fraxinus sp.), and olive (*Olea europaea*), have been planted within these areas.

4.3 Wildlife

Wildlife species encountered onsite include ring-billed gull (*Larus delawarensis*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), and house sparrow (*Passer domesticus*). No California ground squirrel (*Otospermophilius beecheyi*) burrows were observed in or around the Project Site.

4.4 Wildlife Corridors and Urban/Wildlands Interface

Commercial land uses border the Project Site to the east, west, and south. State Road 60 is located to the north. Therefore, the movement of wildlife species at the Project Site is substantially limited due to the habitat fragmentation caused by development and the Project Site does not serve as a continuous regional connection for wildlife species. In addition, the Project Site is outside of any species movement corridors identified by local or regional plans. The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block.

5 Sensitive Biological Resources

A record of all sensitive biological resources observed onsite (Attachment E-3, Biological Report Summary Sheet) and a CEQA significance checklist for biological resources (Attachment E-4, Level of Significance Checklist) are provided.

5.1 Sensitive Plant Communities

No sensitive plant communities were observed on the Project Site.

5.2 Sensitive Plant Species

No sensitive plant species were observed on the Project Site. In addition, no sensitive plant species have been documented in the vicinity of the Project Site or have the potential to occur on the Project Site due to the absence of essential habitat requirements for the species, the absence of known occurrences within 5 miles of the Project Site, and/or the Project Site is outside the species known range of distribution. The MSHCP has determined that any other sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004).

5.3 Sensitive Wildlife Species

Although suitable burrowing owl habitat is present onsite in the disturbed plant communities, burrowing owls are not expected to occur in or around the Project Site due to the lack of suitable burrows (Attachment E-8, Burrowing Owl Survey Map). Therefore, Step II - Part B: Focused Burrowing Owl Surveys are not required.

No other special-status wildlife species were observed on the Project Site or have the potential to occur onsite due to the absence of suitable habitat.

5.4 MSHCP Riparian/Riverine Resources, Vernal Pools, and Jurisdictional Resources

Although a formal jurisdictional delineation was not undertaken as a part of this effort, onsite habitats were assessed to determine if any wetlands and/or “waters” were present onsite. No wetland or water resources subject to the jurisdiction of the USACE, RWQCB, and/or CDFW were identified on the Project Site.

Pursuant to Section 6.1.2 of the MSHCP (2004), habitats were also assessed to determine if MSHCP riparian/riverine resources and/or vernal pools were present. No MSHCP riparian/riverine resources or vernal pool were observed on the Project Site.

6 MSHCP Consistency

The purpose of this analysis is to document existing biological resources, identify general vegetation types, and assess the potential biological and regulatory constraints and potential impacts associated with the proposed development within the Project Site as outlined by the Western Riverside County MSHCP. The following sections summarize the Project Site's relationship to MSHCP compliance guidelines.

6.1 Criteria Areas

The Project Site is located within the Western Riverside County MSHCP Reche Canyon/Badlands Area Plan. The Project Site is not located within an MSHCP criteria area or area plan subunit.

6.2 Narrow Endemic Plant Species Survey Area

The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species. No surveys are required.

6.3 Criteria Area Species Survey Area

The Project Site does not occur within a predetermined Survey Area for criteria area plant species. No surveys are required.

6.4 Amphibian Species Survey Area

The Project Site does not occur within a predetermined Survey Area for amphibian species. No surveys are required.

6.5 Mammal Species Survey Area

The Project Site does not occur within a predetermined Survey Area for mammal species. No surveys are required.

6.6 Burrowing Owl Survey Area

The Project Site does not occur within a predetermined Survey Area for the burrowing owl. Although suitable burrowing owl habitat is present onsite in the disturbed plant communities, burrowing owls are not expected to occur in or around the Project Site due to the lack of suitable burrows. Regardless, a 14-day pre-construction survey will be conducted prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP (MSHCP 2004: Section 7.2) (Mitigation Measure BIO-1).

6.7 MSHCP Riparian/Riverine Resources and Vernal Pools

No riparian resources, riverine resources, or vernal pools pursuant to Section 6.1.2 of the MSHCP were identified on the Project Site.

6.8 Urban/Wildlands Interface

The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block. Therefore, an Urban/Wildland Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required.

7 Environmental Impacts

This section describes potential impacts to sensitive biological resources—including special-status plants and animals, and aquatic resources—that may occur in the Project Site. Each impact discussion includes Avoidance and Minimization Measures (AMMs) that would be implemented during the project to avoid and/or reduce the potential for and/or level of impacts to each resource. With the implementation of the AMMs, all impacts to biological resources are anticipated to be reduced to less than significant pursuant to CEQA.

7.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project could have a significant environmental impact on biological resources if it would:

- 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 CDFW or USFWS
- Have a substantial adverse effect on any sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means
- 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
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plant (NCCP), or other approved local, regional, or state HCP

Direct “take” of a federally or state-listed species is considered a significant impact. Temporary and/or permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the FESA and CESA) unless a significant percentage of total suitable habitat throughout the species’ range is degraded or somehow made unsuitable, or areas supporting a large proportion of the species’ population are substantially and adversely impacted.

Potential impacts to nesting bird species will be considered significant due to their protection under the MBTA and California fish and game code, and such impacts will need to be avoided.

A specific discussion of the thresholds of significance for the Project Site follows.

7.2 Discussion of Thresholds of Significance

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 CDFW or USFWS;

No special-status plant species are anticipated to occur on the Project Site; therefore, no impact is anticipated.

Although suitable burrowing owl habitat is present onsite in the disturbed plant communities, burrowing owls are not expected to occur in or around the Project Site due to the lack of suitable burrows. Mitigation Measure BIO-1 will reduce potential impacts to less than significant levels.

Although no active nests were observed during the 2017 field surveys, there is potential for ground-, tree-, and shrub-nesting birds to establish nests in and around the Project Site in the future. Mitigation Measures BIO-2 and BIO-3 will reduce impacts to nesting birds to less than significant levels.

Mitigation Measures

BIO-1 All project sites containing suitable burrowing owl habitat or burrows (based on Step I - Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls (MSHCP 2006).

BIO-2 To avoid impacts to nesting birds, construction activities and construction noise should occur outside the avian nesting season (February 1 to September 1). If construction occurs within the avian nesting season, all suitable habitats shall be thoroughly surveyed for the presence of nests by a qualified biologist no more than 5 days prior to commencement of any soil disturbance or vegetation removal. If it is determined that the Project Site is occupied by nesting birds, Mitigation Measure BIO-3 will reduce impacts to less than significant levels.

BIO-3 If pre-construction nesting bird surveys locate active nests, no construction-related activities shall "take" place within 300 feet of sensitive bird nests and 500 feet of raptor nests, or as determined by a qualified biologist. Protective measures (e.g., sampling) shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements.

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 CDFW or USFWS;*

Disturbed and paved habitats are present on the entirety of the Project Site. No sensitive natural vegetation communities or riparian habitat are present on the Project Site. Therefore, no impacts to riparian habitat or other sensitive natural vegetation communities are anticipated.

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;*

No federally protected wetlands are located on the Project Site. Therefore, no impacts are anticipated.

d) *Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site;*

The Project Site is primarily urban and is not located within an established wildlife movement corridor. The Project Site is not located within a known wildlife nursery site. Thus, no impacts to wildlife species, migratory corridors, and native wildlife nursery sites are anticipated.

e) *Conflict with local polices or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

No impacts are anticipated.

f) *Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.*

The Project Site is located within the Western Riverside County MSHCP Reche Canyon/Badlands Area Plan. The Project Site is not located within an MSHCP criteria area or area plan subunit. The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species, criteria area plant species, amphibian species, burrowing owl, or mammal species. No surveys are required for these species.

No riparian resources, riverine resources, or vernal pools pursuant to Section 6.1.2 of the MSHCP were identified on the Project Site. The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block. Therefore, an Urban/Wildland Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required.

No impacts are anticipated.

8 References

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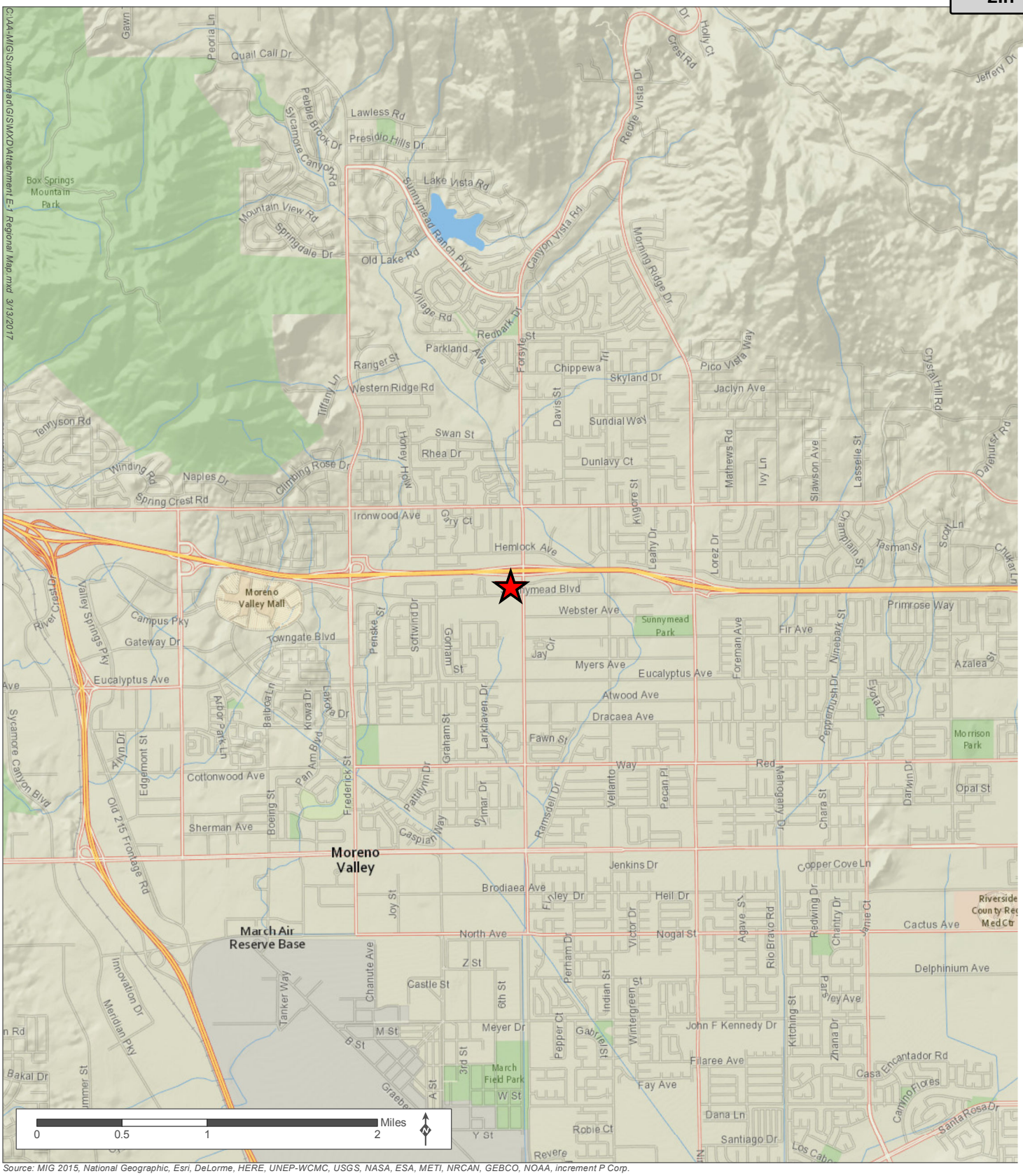


Source: MIG 2015, National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

★ Project Site Location

Attachment E-1 Regional Map

Sunnymead Car Wash, M

Source: MIG 2015, Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Site Boundary (APN: 292-160-023)

Attachment E-2 Project Site Map

Sunnymead Car Wash Project Site, M

BIOLOGICAL REPORT SUMMARY SHEET

Applicant Name: Tri-Millennium Properties/P&N Construction
Assessor's Parcel Number (APN): 292-160-023
Site Location: Section: 1 **Township:** 3S **Range:** 4W
Site Address: The Project Site is located north of Sunnymead Boulevard, and west of Heacock Street
Related Case Number(s): _____ **PDB Number:** _____

CHECK SPECIES SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE OF CONCERN	(Circle Yes, No or N/A regarding species findings on the referenced site)		
X-HA	Arroyo Toad	Yes	(No)	N/A
X-HA	Blueline Stream(s)	Yes	(No)	N/A
	Coachella Valley Fringed-Toed Lizard	Yes	No	(N/A)
X-HA	Coastal California Gnatcatcher	Yes	(No)	N/A
X-HA	Riversidean Sage Scrub	Yes	(No)	N/A
	Delhi Sands Flower-Loving Fly	Yes	No	(N/A)
	Desert Pupfish	Yes	No	(N/A)
	Desert Slender Salamander	Yes	No	(N/A)
	Desert Tortoise	Yes	No	(N/A)
	Flat-Tailed Horned Lizard	Yes	No	(N/A)
X-HA	Least Bell's Vireo	Yes	(No)	N/A
X-HA	Oak Woodlands	Yes	(No)	N/A
X-HA	Quino Checkerspot Butterfly	Yes	(No)	N/A
X-HA	Riverside/Vernal Pool Fairy Shrimp	Yes	(No)	N/A
	Santa Ana River Woolystar	Yes	No	(N/A)
	San Bernardino Kangaroo Rat	Yes	No	(N/A)
	Slender Horned Spineflower	Yes	No	(N/A)
	Stephens' Kangaroo Rat	Yes	(No)	N/A
X-HA	Seasonal Depression	Yes	(No)	N/A
X-HA	Wetlands	Yes	(No)	N/A

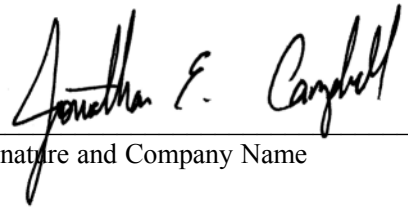
HA - Habitat Assessment Determination

CHECK SPECIES SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE OF CONCERN	(Circle Yes, No or N/A regarding species findings on the referenced site)		
X-HA	Burrowing Owl	Yes	(No)	N/A
X-HA	Southwestern Willow Flycatcher	Yes	(No)	N/A
X-HA	Western Yellow-billed Cuckoo	Yes	(No)	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A

HA - Habitat Assessment Determination

Species of concern shall be any unique, rare, endangered, or threatened species. It shall include species used to delineate wetlands and riparian corridors. It shall also include any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened, or candidate species by either State, or Federal regulations, or for Riverside County as listed by the California Department of Fish and Game Natural Diversity Data Base (CNDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report.



MIG March 17, 2017

Signature and Company Name Report Date

10(a) Permit Number (if applicable) Permit Expiration Date

County Use Only

Received by:_____ **Date:**_____

PD-B#_____

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources

Case Number: _____ **Lot/APN No.** 292-160-023 **EA Number**_____

Wildlife & Vegetation

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?
No Impact

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?
No Impact

c) 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. Wildlife Service?

No Impact

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact

e) 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 Game or U. S. Fish and Wildlife Service?

No Impact

f) 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?

Less Than Significant with Mitigation Incorporated

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
No Impact

Source: CGP Fig. VI.36-VI.40

Findings of Fact:

The 1.67 acre Project Site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Reche Canyon/Badlands Area Plan. The Project Site is not located within a Criteria Area Cell or Area Plan Subunit. The Project Site does not occur within a predetermined Survey Area for criteria area plant species, narrow endemic plant species, amphibian species, mammal species, or burrowing owl. Regardless, a 14-day pre-construction burrowing owl survey will be conducted immediately prior to the initiation of any construction-related activities to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP (2006). Also, to avoid impacts to nesting birds, construction activities and construction noise should occur outside the avian nesting season (February 1 to September 1). If construction occurs within the avian nesting season, all suitable habitats shall be thoroughly surveyed for the presence of nests by a qualified biologist no more than five days prior to commencement of any soil disturbance or vegetation removal. No feature subject to the jurisdiction of the Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), or US Army Corps of Engineers (USACE) were documented onsite. No MSHCP riparian or vernal pool resources were documented onsite. The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block.

Proposed Mitigation:

To be Determined

Monitoring Recommended:

To be Determined

Prepared By: Jonathan E. Campbell Date: March 17, 2017

Source: MIG 2015, Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Site Boundary

Soil Types

Greenfield sandy loam, 0 to 2 percent slopes (GyA): 0.5 ac

Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2): 1.2 ac

Attachment E-5 Soils Map

Sunnymead Car Wash Project Site, M

Source: MIG 2015, Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Site Boundary

Plant Communities

Disturbed (DIS): 1.43 acres

Paved (PAV): 0.24 acres

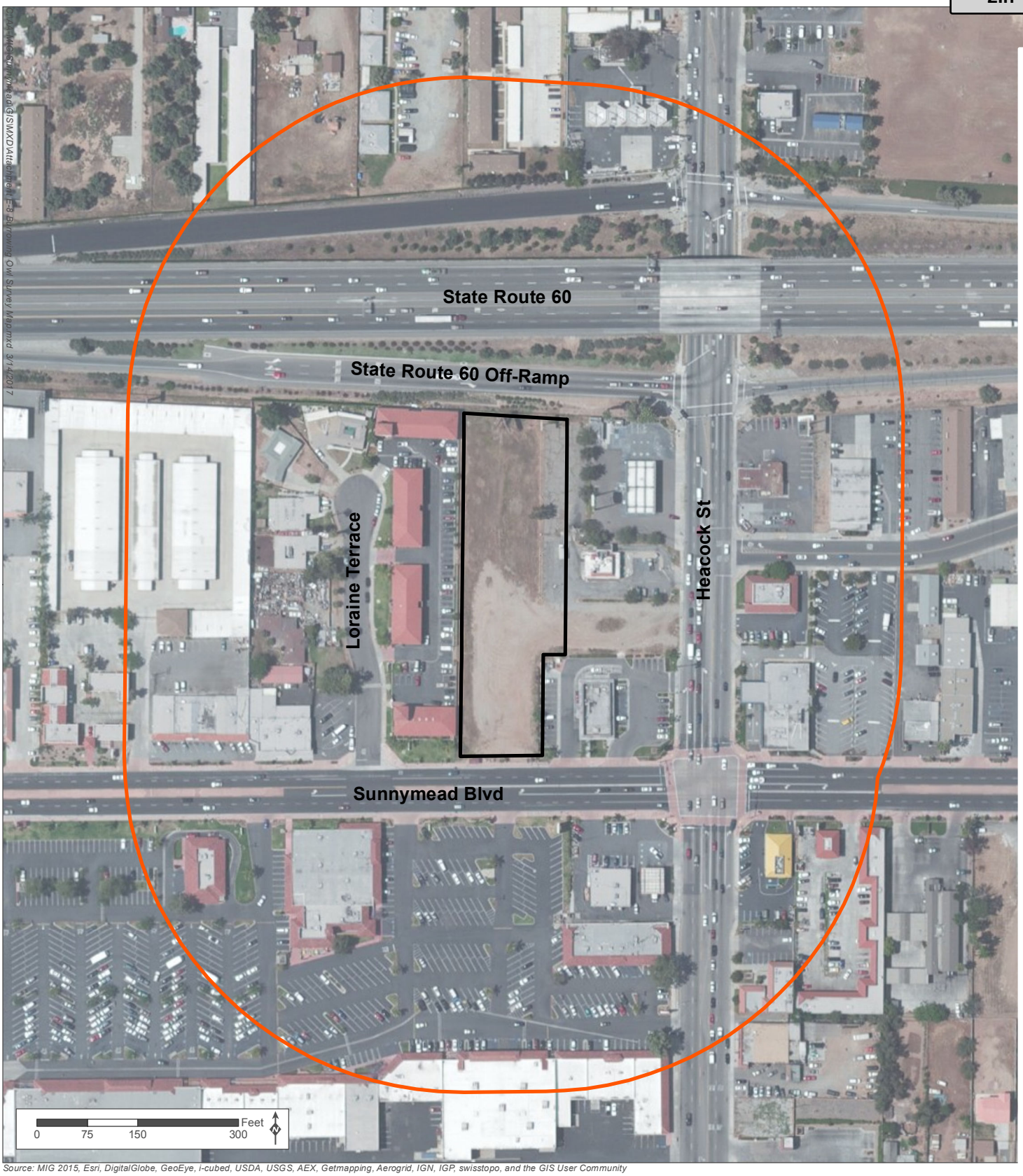
Attachment: Appendix B - Biological Resource Assessment (2913 : PEN16-0113 Plot Plan)

Attachment E-6 Biological Resources Map

Sunnymead Car Wash Project Site, M

PHOTOGRAPH 1 - All unpaved areas on the Project Site have been recently disked.

PHOTOGRAPH 2 - Portions of the Project Site have been paved.



Source: MIG 2015, Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Site Boundary

Burrowing Owl Survey Area (500 foot buffer)

Attachment E-8 Burrowing Owl Survey Map

Sunnymead Car Wash Project Site, M

Appendix C Phase I Cultural Resources Technical Report

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PHASE I CULTURAL RESOURCES INVENTORY REPORT FOR APN 292-160-023 LOCATED ON SUNNYMEAD BLVD., JUST WEST OF HEACOCK STREET, CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA

[PAST File No. 1255]

USGS 7.5-minute Quadrangle: Sunnymead, Calif.
Keywords: Negative Survey; Commercial; 1.68 acres; APN 292-160-023; Address Pending, Moreno Valley; Riverside County; T3S, R4W, Section 1; 43 pages

Prepared for:

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February 2017

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MANAGEMENT SUMMARY

A Phase I cultural resources inventory was conducted by PAST, INC. for APN 292-160-023, a 1.68-acre property located along Sunnymead Blvd. (address pending), just west of Heacock Street in the City of Moreno Valley, Riverside County, California. At present, the subject property is vacant; however, archival research revealed that a structure once existed on the parcel from before 1939 to sometime between 1966–67. Current plans for the subject property call for the development of a 5,424-square foot fully automated car wash. The current zoning is SP204CC.

This study included: (1) obtaining a ½-mile radius records search from the Eastern Information Center (EIC); (2) conducting other relevant archival research including a review of historic USGS maps and aerial photographs, (3) performing an on-foot field inspection of the subject property; and (4) the preparation of this report documenting the methods and results of the investigation. For this study, Barbie Getchell is identified as the Principal Investigator, while John E. Atwood served as the Project Archaeologist. A statement of qualifications for each of the two PAST, INC. investigators is attached to the end of this report.

In summary, the EIC records search revealed that: (1) the subject property was included within the study area of an earlier investigation entitled *Cultural Resources Inventory for the City of Moreno Valley, Riverside County, California* (McCarthy and Wilke 1987); (2) no cultural resources have been recorded within the boundaries of the subject property; (3) there are five reports on file for previous investigations conducted within a ½-mile radius of the subject property; (4) there has been three cultural resource properties (P-33-007285, P-33-017202, and P-33-017203 [all single-family residences]) recorded within the search radius; however, none of these properties involve the project site; (5) no properties are listed on the National Register of Historic Places or the Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility within the boundaries of the subject parcel; and (9) the OHP Directory of Properties, in the Historic Property Data File, lists one property (P-33-007285) that appears eligible for inclusion on the National Register of Historic Places through survey evaluation.

A review of historic quadrangles from the USGS and U.S. Department of the Army, Corps of Engineers revealed the presence of a structure on the subject property on 1942 and 1953 maps. Of note, electronic plotting of the parcel on the 1901 edition of the USGS Elsinore, Calif. 1:125,000 topographic quadrangle places the subject property at the terminus of an intermittent stream originating from the Pigeon Pass Valley, where a series of small ponds are depicted (a seasonal marsh?); however, further analysis indicated that there may be a mapping or projection error with this quadrangle as the aforementioned feature is depicted on the east side of the forerunner of Heacock Street (the subject property is located to the west of this street). A historic aerial photo from 1966 shows the presence of the structure along Sunnymead Blvd. on the parcel as noted on the 1942 and 1953 quadrangles; however, the 1967 photo shows that the structure had been removed or demolished (note: the 1967 edition of the USGS Sunnymead, Calif. 7.5' quadrangle shows the area within an "Built-up area" and the structure is no longer depicted as are others in the immediate area).

An on-foot survey of the subject property was conducted on February 10, 2017. In summary, the inspection found the parcel to be a flat vacant lot that had been lightly graded for vegetation removal in the past (although seasonal weedy annuals covered most of the property at the time of the inspection). While vacant of any structures, several modern features were noted on or adjacent to the subject property. These features included a covered bus stop, a drainage system, underground utilities, and a dual-facing billboard. A rectangular-shaped asphalt pad is present in

the northeast corner of the parcel, which is currently used a small homeless encampment, where an abundant amount of neoteric refuse was noted (a moderate amount of dumped trash was also noted elsewhere on the parcel). No prehistoric or early historic materials or features were noted on the surface of the subject property during the survey.

Since no prehistoric or extant early historic resources have been noted within the boundaries of APN 292-160-023, the proposed development of a 5,424-square foot fully automated car wash on this parcel will not have a direct impact any known cultural resources. While the EIC noted the presence of three historic properties within the ½-mile search radius, none of these are located on or adjacent to the subject property; therefore, the proposed project will not have any indirect impacts to these resources. As such, no further cultural resource investigations or analysis of APN 292-160-023 are recommended prior to the proposed development of the parcel. Following standard requirements, any development permits associated with this parcel should be conditioned that in the event of any unanticipated discoveries, work around the find must be halted until the resource can be properly evaluated and mitigated. Likewise, if human remains are encountered, the procedures described in Section 7050.5 of the California State Health and Safety Code must be followed. More specific procedures regarding the discovery of inadvertent archaeological finds and human remains are detailed in this report.

I. INTRODUCTION

Pursuant to a request from Bijan Shahmoradi of P&N Construction, Tri-Millennium Properties, PAST, INC. conducted a Phase I cultural resources inventory of APN 292-160-023; a 1.68-acre property located along Sunnymead Blvd. (address pending), just west of Heacock Street in the City of Moreno Valley, Riverside County, California (subject property or project site). Attached to the end of this report is Figure 1, a composite of portions of the 1967 (photorevised 1980) editions of the USGS Riverside East and Sunnymead, Calif. 7.5-minute series topographic quadrangles showing the size, shape, and location of the subject property (note: Sunnymead Blvd. is noted as Grevillea Ave. on both USGS quadrangles). Current plans for the vacant subject property call for the development of a 5,424-square foot fully automated car wash with a free vacuum stall (cf. Figure 2).

This Phase I cultural resources study included: (1) obtaining a complete ½-mile radius records search for the subject property from the Eastern Information Center at the University of California Riverside (EIC); (2) reviewing other revenant background information about the project site such as historic USGS maps and aerial photographs; (3) performing an on-foot examination of the surface of APN 292-160-023; and (4) the preparation of this final technical report, which documents the findings of the study and makes a set of recommendations regarding additional archaeological investigations as required. Overall, this report was prepared following the California Office of Historic Preservation's *Archaeological Resource Management Reports: Recommended Contents and Format* (1990). For this investigation conducted by PAST, INC., Barbie Getchell is identified as the Principal Investigator and John E. Atwood served as the Project Archaeologist (cf. Appendix A. Statement of Qualifications).

In summary, this report presents some background information on the natural and cultural setting of the project area (including the results of the EIC record search as well as other archival research); describes the methods used during the field inspection of the subject property; reports on the results of the field investigation; provides a discussion of the study's findings; and conclude with a set of recommendations. Attached to the end of this report is Figure 1, a composite of portions of the 1967 (photorevised 1980) USGS Riverside East and Sunnymead, Calif. 7.5-minute series topographic quadrangles showing the location and shape of the subject property; Figure 2, a site plan, prepared by Scott & Associates (Architect) of Visalia, depicting the proposed development; Figure 3, a portion of the 1901 edition of the USGS Elsinore

1:125,000-series topographic map showing the location of a nearby ponding area at the terminus of an intermittent stream originating from Pigeon Pass Valley; Figure 4, a portion of the 1942 edition of the U.S. Department of the Army, Corps of Engineers Perris, California 15-minute series topographic quadrangle noting the location of a structure that once existed on the subject property; Figure 5, a historic aerial photo from HistoricAerials.com showing the structure that once existed on the subject property (removed circa 1966–67); Appendix A, a statement of qualifications for Barbie Getchell and John E. Atwood of PAST, INC.; Appendix B, the Eastern Information Center (EIC) records search results letter and report list; Appendix C, AB 52 tribal consultation letters received by the City of Moreno Valley; and Appendix D. two photographs taken during the inspection of the subject property.

II. BACKGROUND

A. Natural Setting

Geographically, Moreno Valley is located within the Perris Upland, which is part of the northern Peninsular Range Province, at 33°55'35" North, 117°13'42" West. The area is characterized by small broad valleys that are divided by mountain ranges and smaller hills. One of the most visible geographical features in Moreno Valley is Box Springs Mountain at the northwest end of the city. To the north are the San Bernardino Valley and Mountains; to the south are Lake Perris and the San Jacinto Mountains; to the east is San Gorgonio Pass and the Coachella Valley; and to the west is the neighboring City of Riverside. More specifically, the 1.68-acre subject property is located just south of State Route 60 along Sunnymead Blvd. (address pending), just east of Loraine Terrace and west of Heacock Street in the City of Moreno Valley. Figure 1, attached to the end of this report, is a composite of the 1967 (photorevised 1980) editions of the USGS Riverside East and Sunnymead, Calif. 7.5-minute topographic series quadrangles showing the location, size, and shape of the project site (note: both USGS quadrangles still label Sunnymead Blvd. as "Grevillea Ave."). APN 292-160-023 is currently zoned as SP 204 CC for general commercial land use. Elevations on the subject property range from about 1,640 feet along the northern boundary to about 1,636 feet along Sunnymead Blvd.

Geologically, the subject property is in an area composed of very old alluvial fan deposits (Qvof). These early Pleistocene deposits are described as "mostly well- dissected, well-indurated, reddish-brown sand deposits, containing minor gravel. Commonly contains duripans and locally

silcretes. Forms widespread deposits north and south of Moreno Valley, flanking bedrock areas. Deposits on older erosion surfaces lack diagnostic features, and may or may not be alluvial fan deposits" (Morton and Matti 2001). According to the 1901 edition of the USGS Elsinore, Calif. 1:125,000-series topographic quadrangle (surveyed in 1897–98), the nearest natural water resource to the subject property was located about 35 meters (115 feet) to the northeast at the terminus of an intermittent stream flowing through the Pigeon Pass Valley to the north and another intermittent stream from the northeast. At the terminus of this stream, the map (ibid.) depicts a series of small ponds (perhaps, a marshy area? [note: there is no single document that describes all the symbols used on early historic maps produced by the USGS and it is possible that some unusual symbols are not in any published document]). Subsequently, water resources in the area has been modified by modern features such percolation basins, the development of Poorman Reservoir, etc.

Moreno Valley has a mild semi-arid climate (Köppen *BSh*), with Mediterranean characteristics, where summer temperatures average in the low to mid 90s (although many days reach over 100° Fahrenheit), and winter high temperatures average about 68° (average lows range in the mid 40s). Average precipitation in the area is measured as 323.8 millimeters (12.75-inches). According to (McCarthy and Wilke 1987:3), "the vegetation of much of the foothills and most of the valley has been disturbed by dry faming agriculture. In late prehistoric times, the vegetation probably consisted of at least three plant communities (Munz 1974): Coastal Sage Scrub, Valley Grassland, and Freshwater Marsh. Each of these plant communities offered numerous plant resources that were utilized by Native Americans." Fauna resources exploited by the people in this area included deer, rabbit, antelope, nice, rats, mountain sheep, reptiles, insects, larvae, fish, quail, doves, ducks, and roadrunners (Bean 1978:Table 1. Environment).

B. Cultural Setting

1. Prehistoric

Per the *Handbook of North American Indians, Volume 8 California* (Heizer 1978), the Moreno Valley area falls within the territory historically occupied by the Cahuilla people.

Following Bean (1978:575):

> The Cahuilla occupied most of the area, from the summit of the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, a portion of the Colorado Desert west of Orocopia Mountain to the east, and the San Jacinto Plain near Riverside, and the eastern slopes of Palomar Mountain to the west (fig. 1)…
>
> The Cahuilla area, located near the geographic center of southern California, was bisected by a major trade route, the Cocopa-Maricopa Trail, and was at the periphery of two others, the ones labeled Santa Fe and Yuman. Natural boundaries such as the Colorado Desert separated the Cahuilla from the Mohave, Halchidoma, Ipai, and Tipai; the mountain, hills, and plains separated them from the Luiseño, Serrano, and Gabrielino.
>
> These peoples interacted regularly by intermarriage, trade, ritual, and war. The Cahuilla shared a common tradition with the Gabrielino and other Takic speakers, such as the Serrano and Luiseño. Of these, the Gabrielino and Serrano were the most intensively involved (Bean 1972:69; Kroeber 1925: 578–580) [ibid.]

As noted rather succinctly in a historical/archaeological resources report for the Heacock Street Road-Widening Project in the City of Moreno Valley (Smallwood, et al. 2008):

> It is widely acknowledged that human occupation in what is now the State of California began 8,000–12,000 years ago. In attempting to describe and understand the cultural processes that occurred in the ensuing years,

archaeologists have developed a number of chronological frameworks…Unfortunately, none of these chronological frameworks has been widely accepted, and not has been developed specifically for the so-called Inland Empire, the nearest ones being for the Colorado Desert and Peninsular Ranges area (Warren 1984) and for the Mojave Desert (Warren and Crabtree 1986).

…most archaeologists follow tend to follow a chronology adapted form a scheme developed by William J. Wallace in 1955 and modified by others (Wallace 1955, 1978; Warren 1968; Chartkoff and Chartkoff 1984; Moratto 1984). Although the beginning and ending dates of the different horizons or periods may vary, the general framework of the prehistory in the region under this chronology consists of the following four periods:

- Early Hunting Stage (ca. 10,000 BC–6,000 BC), which was characterized by human reliance on big game animals, as evidenced by large, archaic-style projectile points and the relative lack of plant-processing artifacts;
- Millingstone Horizon (ca. 6,000 BC–AD 1,000), when plant foods and small game animals came to the forefront of subsistence strategy, and from which a large number of millingstones, especially well-made, deep-basin metates, were left;
- Late Prehistoric Period (ca. AD 1,000–1,500), during which a more complex social organization, a more diversified subsistence base—and regional cultures and tribal territories began to develop;
- Protohistoric Period (ca. AD 1,500–1700s), which ushered in long-distance contact with Europeans, and thereby lead to the Historic Period. [ibid.: 4]

Within the boundaries of the City of Moreno Valley, nearly 200 prehistoric sites discovered. Most of these sites consist of milling stations and rock art (both pictographs and petroglyphs) are present. Boulders containing pecked cupules are also common.

2. Historic

Early Spanish scouts exploring the region encountered Native American people who lived in semi-sedentary villages, which the population lived in the winter and spread out in family groups during the spring and summer months to harvest plants and seeds. When California became a state in 1850, Americans began to move into the region when the Tucson to San Francisco route of the Butterfield Overland Mail Company passed through the area. But, for the most part, the Moreno Valley area reminded as unclaimed land until the 1870, when a large tract of 13,471 acres was purchased from the United States government; from which, the 11,560-acre Alessandro Tract acquired.

In a book entitled *California Place Names: The Origin and Etymology of Current Geographical Names* (Gudde and Bright 1998), the following information is provided for the place names "Moreno" and "Sunnymead":

> **Moreno** (mô rē′ no, mə rē′ nō) [Riverside Co.]. When Frank E. Brown declined to have his name used for the town that he and E. C. Judson laid out in 1881–82, the Spanish word for 'brown' was substituted (Co. Hist.: Riverside 1912:170). In 1984, the communities of Moreno, Sunnymead, and Edgemont incorporated as the City of Moreno Valley (Gunther 1984). [ibid.:248]
>
> **Sunnymead** [Riverside Co.]. The Sunnymead Orchard Tract was laid out and named in 1913; it is now part of the City of Moreno Valley (Brigandi). [ibid.:379]

In the early 1880s, F. E. Brown's Bear Valley Land and Water Company began collecting and pumping water from the San Bernardino Mountains into the region. This development created a brief boom that turned to a bust during a period of drought in the late 1890s. In the early 1910s, the Moreno Valley area began a slow economic recovery and a 1,100-acre portion of the Alessandro Tract was re- subdivided as the Sunnymead Orchard Tract. In 1918, the United States Army Air Service (forerunner to the United States Air Force) constructed March Field as part of its World War I expansion to train fighter pilots. Although March Field was closed in 1922, it was reopened in 1927 and directly lead to the development and growth of the region. In 1996, March Air Force Base became March Air Reserve Base under the Air Force Reserve Command. Another notable development in the area was the Riverside International Raceway (now the site of the Moreno Valley Mall), which operated from 1957 to 1989.

In the 1980s the Moreno Valley experienced explosive growth, which signaled a major transition from rural farming to urbanization. Residential construction escalated, and families from the nearby major metropolises migrated in large numbers seeking affordable housing opportunities. In a little more than a decade, the region's population more than doubled from 18,871 residents in 1970 to 49,702 in 1984. Although attempts failed in 1968 and 1983, a measure to form the City of Moreno Valley, which united the communities of Edgemont, Sunnymead, and Moreno, was approved by voters in 1984. Today, the city is home to about 200,000 people and, in recent years, seen a rise in the number of corporate industrial and business parks.

C. EIC Records Search Results

A ½-mile radius records search for APN 292-160-023 was prepared on January 30, 2017, by Leslie Yee, Information Officer, of the Eastern Information Center at the University of California, Riverside. In summary, the records search revealed: (1) five cultural studies have been conducted within the search radius; one of which included the subject property; (2) three cultural resources properties have been recorded (P-33-007285, P-33-017202, and P-33-017203); however, none of these properties involve the project site; (3) no properties are listed on the National Register of Historic Places or the Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility within the boundaries of the subject parcel and (4) the OHP Directory of Properties, in the Historic Property Data File, lists one property (P-33-007285) that appears eligible for inclusion on the National Register of Historic Places through survey evaluation. PDF copies of these material as well as eight additional studies that provide overviews of cultural resources in

the general project vicinity were provided on CD-R media along with the records search results letter and Report List (cf. Appendix B).

As noted above, the subject property was included within the boundaries of a previous study; viz. *Cultural Resources Inventory for the City of Moreno Valley, Riverside County, California* (McCarthy and Wilke 1987). Per McCarthy and Wilke (1987:2), "the purpose of this report is to identify cultural resources (exclusive of the built environment sites) within the study area, to provide the City with an inventory of archaeological sites, and to evaluate the significance of these sites and identify archaeologically sensitive areas." Although this inventory noted the presence of 168 total site within the study area, the maps presented in the report (ibid.) classified the subject property as being "urban" and no archaeological resources were noted.

Information on the three previously recorded sites (all historic structures) located within a ½-mile radius of the subject property is presented in Table 1, below.

Table 1. Recorded sites within a ½-mile radius of the subject property

Site Number (Recorded by and date)	Description
P-33-007285 (Warner 1983)	Vernacular wood frame, square in plan, main house with small house in back located on Hemlock Ave. (estimated construction date: circa 1910). Significance: "the house is unusual for its use of the hipped gable and very unique in its use of a single 'hipped gablet'." This site appears eligible for inclusion on the National Register of Historic Places (see above).
P-33-017202 (Smallwood 2008a)	One-story, wood-frame, residence of vernacular design, square in plan with medium-pitched hip roof and a detached garage located on Heacock Street (estimated construction date: circa 1956). Significance: "Post-WWII residential development".
P-33-017203 (Smallwood 2008b)	One-story, ranch-style, wood-frame residence, irregular in plan, with a medium-pitched cross-gabled roof and detached garage (estimated construction date: circa 1959). Significance: "Post-WWII residential development".

D. AB 52 Consultation

Tribal consultation, pursuant to Assembly Bill 52 (AB 52), for the proposed project had begun by the City of Moreno Valley, Community Development Department prior to the initiation of this

Phase I cultural resources inventory. Copies of letters from the Agua Caliente Band of Cahuilla Indians (Harvey 2016), Soboba Band of Luiseño Indians (Ontiveros 2016), and Temecula Band of Luiseño Mission Indians, Pechanga Cultural Resources (Ozdil 2016) were supplied to PAST, INC. for review (cf. Appendix C).

Of note, the Agua Caliente Band of Cahuilla Indians letter (Harvey 2016) requested the following:

> The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area (TUA). For this reason, the ACBCI THPO requests the following:
>
> - A cultural resource inventory of the project area by a qualified archaeologist prior to any development activities in this area.
> - Copies of any cultural resource documentation (report and site records) generated in connection with this project.
> - A copy of the records search with associated survey reports and site records from the information center. [ibid.]

Regarding the ACBCI request for a complete copy of the EIC records search ("with associated survey reports and site records from the information center") for this inventory, this information cannot be provided by PAST, INC. as the results contain confidential information that is protected by law and tied directly to our unique CHRIS Access and Use Agreement. As stated in the EIC records search letter prepared for the current investigation by Leslie Yee, "confidential information provided with this records search regarding the location of your project area should not be included in reports addressing the project area." (cf. Appendix B). Although the confidential nature of archaeological records is well-known, PAST, INC. suggests that the City of Moreno Valley refer the ACBCI directly to the Office of Historic Preservation and the EIC for additional information about confidential records and access to this data.

The Soboba Band of Luiseño Indian letter acknowledges receipt of the City's notification un Assembly Bill 52 and requested the initiation of formal consultation with the City of Moreno Valley.

In the letter from Ebro Ozdil, Planning Specialist of the Temecula Band of Luiseño Mission Indians, the following information is related:

> The Pechanga Tribe asserts that the Project area is part of Payómkawichum (Luiseño) and therefore the Tribe's, aboriginal territory as evidenced by the existence of Payómkawichum cultural resources, named places, *tóota yixélval* (rock art, pictographs, petroglyphs), and an extensive Payómkawichum artifact record in the vicinity of the Project. This culturally sensitive area is affliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as our extensive history with the City and other projects in the area. During our consultation we will provide more specific, confidential information on potential TCRs that may be impacted by the proposed project. [ibid.]

E. Historic Map Research

As part of the relevant background research for this study, the following historic maps found on the USGS Historical Topographic Map Explorer website (http://historicalmaps.arcgis.com/usgs/) were reviewed (note: copies of these maps are on file with PAST, INC. under Accession Number 1255).

- 1901 edition of the USGS Elsinore, Calif. 1:125,000-series Quadrangle
- 1942 edition of the United States Department of the Army, Corps of Engineers Perris, Calif. 15' Quadrangle
- 1953 edition of the USGS Sunnymead, Calif. 7.5' Quadrangle
- 1967 edition of the USGS Sunnymead, Calif. 7.5' Quadrangle
- 1973 edition of the USGS Sunnymead, Calif. 7.5' Quadrangle
- 1980 edition of the USGS Sunnymead, Calif. 7.5' Quadrangle

An interesting aspect to the USGS Historical Topographic Map Explorer website allows electronic overlays of all available map editions for any locale. In reference to the 1901 edition of the USGS Elsinore, Calif. 1:125,000 series topographic quadrangle, the location of the subject property is shown adjacent to the east side of an unnamed street (the forerunner of Heacock Street), in an area where an intermittent stream channel terminates from the north where several small ponds are depicted (a small seasonal marsh?). This placement of the subject property and these water features are also noted on historic topographic maps on the internet site www.HistoricAerials.com. According to Smallwood et al. (2008:9), "by the late 1890s, the forerunner of Heacock Street had been constructed along its present course, …" Since the subject property is located west of Heacock Street, it can be assumed that the electronic plotting of the parcel on the 1901 Quadrangle can be attributed to a projection induced error or a triangulation error on the original map (verification of the triangulation was also performed by PAST, INC. with other maps, which confirmed the plotting deviation) (cf. Figure 3).

The 1942 edition of the United States Department of the Army, Corps of Engineers Perris, Calif, 15-minute series topographic quadrangle shows the development of Sunnymead Blvd. (marked State Route 60) and a structure on the subject property adjacent to Sunnymead Blvd. Just north of the structure, within the boundaries of the subject property, the area is noted as land used for orchards (cf. Figure 4). The 1953 USGS Sunnymead, Calif. 7.5-minute series topographic quadrangle still depicts the structure on the parcel; however, the northern portion of the property no longer is marked as being used as orchard lands. The 1967 edition of the USGS Sunnymead, Calif. 7.5' series topographic quadrangle depicts the north side of Grevillea Avenue (Sunnymead Blvd.) as a "Built-up area" and the structure on the subject property is no longer shown (although other structures in the vicinity are). Other developments on this map near the subject property include the development of State Route 60 to the north, a Post Office to the east, and the development of Loraine Terrace and Fire Station to the west. The 1973 edition of the USGS Sunnymead, Calif. 7.5' series topographic quadrangle is almost indistinguishable with the 1967 edition for the immediate area; the 1980 edition of the USGS quadrangle shows an increase in the number of structures in the area.

F. Historic Aerial Photo Research

A search of www.HistoricAerials.com revealed aerial photos from 1966, 1967, 1978, 1997, 2002, 2005, 2009, 2010, and 2012 that included the subject property. The 1966 photo shows the small

structure on the subject property, adjacent to Sunnymead Blvd., as noted on the 1942 edition of the USGS Perris, Calif, 30' series topographic quadrangle (cf. Figure 4) and the 1953 edition of the USGS Sunnymead, Calif. 7.5' series topographic quadrangle. The structure appears to be surrounded on the south and west sides by large bushes or trees with a cleared vacant area on the east side of the structure (a parking area?), which is bound by a line of trees further to the east. The northern portion of parcel is vacant and dominated by low-lying wild vegetation. Other structures in the area are also noted along Heacock Street (cf. Figure 5). The 1967 photo shows that the structure and surrounding trees had be removed from the subject property. The 1978 photo continues to show the subject property as vacant land with the structure at the corner of Heacock Street and Sunnymead Blvd. having been removed. This photo also depicts the development of a large shopping center on the south side of Sunnymead Blvd. as well as nearby developments along Loraine Terrace to the west. The 1997 photo shows the subject property as a vacant lot clear of vegetation; however, the development of the Jack In The Box fast food restaurant is noted at the northwest corner of Heacock Street and Sunnymead Blvd. (further developments along Loraine Terrace are also depicted). This photo also shows a vacant parcel of land on Heacock Street, north of the Jack In The Box restaurant, that connects with the subject property. The 2002, 2005, 2009, 2010, and 2012 photos appear similar to the 1997 photo; although vegetative growth in the north portion of the subject property is noted in all but the 2012 photo.

III. METHODS

The field inspection of APN 292-160-023 was conducted by Project Archaeologist John E. Atwood of PAST, INC., accompanied by amateur archaeologist Mike Simpson, on February 10, 2017. Overall, the survey was conducted by walking a series of 5-meter north–south transects back and forth across the subject property. During the survey, field notes were written down to document observations made on the general condition of the parcel, minor developments, current use, and the abundance of neoteric refuse present on the property. In addition to the field notes, 69 digital photographs (NEF [Raw] and JPG formats) were taken (two of which appear in Appendix D of this report). Both the field notes and photographs were referred to during the production of this report and will remain on-file with the Encino office of PAST, INC. under File No. 1255. In addition to submitting hard copies of this report to Mr. Bijan Shahmoradi of P&N Construction, Tri- Millennium Properties, an electronic version (PDF file) of this report will be delivered to the EIC for the state's archival records.

IV. REPORT OF FINDINGS

At present, the subject property can be characterized as a relatively flat vacant irregular-shaped (nearly compound rectangular) commercial lot on the north side of Sunnymead Blvd. (address pending), about 61 meters (200 feet) west of Heacock Street (cf. Figure 1). While the center portion of the parcel had been recently scraped, and was devoid of vegetation, nearly all other areas of the property contained a moderate growth of wild weedy annuals resulting from the recent winter rainfall (cf. Appendix D, Photo 1). Ground surface visibility in the cleared area was considered excellent (nearly 100%), except for some water ponding, while the remainder of the main portion of the property was obscured by the weedy vegetation (ground surface visibility in this area was considered quite poor (<20%). The northeastern rectangular portion of the property is covered by asphalt pavement, which afforded no ground surface visibility.

Despite the generally poor ground surface visibility conditions throughout the subject property, several modern features and disturbances were noted; along with a moderate amount of neoteric refuse. Along Sunnymead Blvd., there is a covered bus stop, near which, an underground electrical line was noted as well as E.M.W.D. sewer cover. At the southwest corner, there is drainage feature consisting of a concrete reinforced structure with open steel pipes. Near the center of the property, along Sunnymead Blvd., a large Coldwell Banker Commercial "For Sale" sign was present, with an attached "Private Property" sign. In the southeast corner, an irrigation control valve box was noted. The eastern boundary of the parcel, adjacent to the Jack In The Box restaurant, is delineated by a chain link fence with privacy slats. At the base of this fence, within the subject property, flags and painted markings noting the route of an underground Frontier telephone cable. The western end of the property is located adjacent to several automobile-related businesses along Loraine Terrace and is separated by a light beige-colored stucco block wall. Within the center portion of the property, ground asphalt pavement had been deposited on the parcel as well as a chunk of concrete. Neoteric refuse in this portion of the was considered moderate with sporadic finds of dumped electronics, toys, a shock absorber, etc. as well as other spillage from a homeless encampment in the northeast corner of the property (see below). At the north end of the property, which is lined by a decaying chain link fence, there is another Coldwell Banker Commercial sign as well as a large dual facing metal billboard (visible from State Route 60).

As noted above, the northeast rectangular corner of the subject property is composed an asphalt pad adjacent to the bordering restaurant and gas station along Heacock Street. The asphalt pad contains white metal barrier poles in the southern portion and large green utility box marked No. 12435, which is probably associated with the parking lot lights associated with the adjacent "World Famous Jack's Junior Burger restaurant to the east. Recent trash is abundant in this area as this pad is currently used as a homeless encampment (cf. Appendix D, Photo 2). Refuse in this area included, but was not limited to clothing, tarps, metal food cans, glass and plastic containers, carpet fragments, pieces of metal and wood, mattress pads, paper goods, etc. At the time of the inspection, the surveyors encountered two residents of the encampment, who promised to 'clean-up the area for us."

Overall, however, no evidence of prehistoric materials or features were noted on the subject property during the inspection. Likewise, early historic resources were not encountered and no evidence of the structure that once existed on the parcel from the early 1940s through the mid-1960s was discovered. The only cultural materials noted consisted of neoteric refuse as well as the modern features described above.

V. DISCUSSION

As described above, the current inspection of APN 292-160-023 did not result in the discovery of any prehistoric or early historic resources. According the EIC records search (cf. Appendix B), the subject property was also included within the project area of an earlier study by McCarthy and Wilke (1987), where no cultural resources were noted on the parcel. Despite the lack of any prehistoric materials or features, historic maps and aerial photos show that a structure had been developed on the parcel 1939. According to historic aerial photos, the structure was demolished sometime between 1966–67. Since that time, the subject property has remained as a relatively vacant lot (some modern features such a bus stop, billboard signs, and the placement of underground utilities were noted, however, during the inspection). Today, the northeastern portion of the parcel is used as homeless encampment where an abundance of miscellaneous refuse was noted. Elsewhere, a moderate amount of neoteric refuse was also seen strewn about the subject property. Although ground surface visibility was considered poor over much of the parcel, no traces were found of any prehistoric use of the area or early historic use of the property that could be associated with the structure that once existed on the parcel. Historic aerial photos also show that the land has been graded at various times over the years for vegetation removal.

While about 200 prehistoric archaeological sites have been discovered within the boundaries of the City of Moreno Valley, no such resources have been recorded within a ½-mile radius of the subject property (all three recorded cultural resource properties within the search radius consist of early private residences located to the north). In general, the subject property does not appear to be a likely locale for prehistoric settlement or use as no natural resources such as large rock outcrops or water resources exist on, or immediately adjacent to, the parcel (note: the majority of prehistoric sites that are located within the city are associated with milling stations or features [McCarthy and Wilke 1987]). Of interest, however, is the terminus of the intermittent stream from Pigeon Pass Valley, where a series of ponds are depicted on the 1901 edition of the USGS Elsinore, Calif. 1:125,000-series topographic quadrangle to the northeast of the subject property on the east side of Heacock Street. Although the series of blue circles may indicate the presence of a series of small ponds in the area, the unusual group of symbols may also indicate the manifestation a seasonal marsh. If so, and this feature existed over a long period of time, it undoubtedly would have been exploited by the prehistoric inhabitants of the region for its food and water resources. Nevertheless, this natural feature is located far enough away that from the subject property where no direct linkage is suspected at present.

Given the number of known archaeological resources in the City of Moreno Valley, there is no doubt that the region was utilized by the prehistoric inhabitants of the area for many different purposes such as habitation areas, food and other resource processing areas, lithic workshop areas, religious and dance areas, etc. Some of these uses leave material remains in an identifiable locale that archaeologists refer to as “sites”. Other uses, such as food procurement areas and transit corridors, generally leave little physical evidence, except for the occasional discovery of an isolated find. Unfortunately, if the subject property was ever the focus on any use by Native Americans, no evidence of such was noted on the current surface of the parcel. Moreover, the subject property appears to have been graded several times over the years and was historically used as orchard land. Although there was once a small structure on the parcel that was constructed before 1939, it was demolished sometime between 1966–67 and no remaining evidence of it was noted during the current field inspection.

VI. MANAGEMENT CONSIDERATIONS

Since no prehistoric or early historic resources were noted on the surface of APN 292-160-023, the proposed development of a 5,424-square foot fully automated car wash on this parcel will not have a direct impact any known cultural resources. The EIC records search noted the presence of three cultural resource properties (all historic residential structures) within a ½-mile radius of the subject property; however, the proposed car wash development will not any indirect impacts on these resources or any others in the region. Therefore, no further cultural resource investigations are recommended for the subject property prior to any grading work on the parcel.

Since there is always the chance that some type of buried or otherwise hidden cultural resources could be uncovered during any ground disturbing activities associated with the development of the subject property, permits for the project should be conditioned that in the event that cultural resources are discovered during construction, all operations in the immediate vicinity of the find must be halted until a qualified archaeologist can evaluate the nature of the resource. The archaeologist shall make the recommendations to the City of Moreno Valley Planning Division (Lead Agency) on the measures that shall be implemented to protect or mitigate the discovered resources. No further ground disturbing work shall occur in the area of the discovery until the Lead Agency approves of the measures to be taken. Once any additional archaeological work has been completed, work in the area of the find can continue. The consulting archaeologist shall complete all appropriate resource record forms and document the results of any archaeological work in a final technical report; both the forms and the report must be submitted to the EIC for the state's archival records.

If any human remains are encountered on the subject property, the procedures described in Section 7050.5 of the California State Health and Safety Code must be followed. These procedures include: (1) no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has been contacted; (2) if the coroner determines that the human remains are those of a Native American or has reason to believe that they are those of a Native American, the coroner's office shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours; (3) upon the discovery of Native American remains, the permittee shall ensure that the immediate vicinity is not damaged or disturbed by further development activity until the permittee has discussed and conferred with the most likely descendants regarding the descendants' preferences and all

reasonable options for treatment and disposition of the remains in accordance with Public Resources Code Section 5097.98; and (4) whenever the NAHC is unable to identify a descendant or descendants fail to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the descendants and the mediation provided in Subdivision (k) of Public Resources Code Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance. To protect the sites, the landowner shall record the site with the NAHC and the EIC.

VII. REFERENCES CITED

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Ozdil, E.
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Smallwood, J.
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VIII. LIST OF ATTACHMENTS

Figure 1. Location Map
Figure 2. Site Plan
Figure 3. 1901 Historic Map
Figure 4. 1942 Historic Map
Figure 5. 1966 Historic Aerial Photo
Appendix A. Statement of Qualifications: B. Getchell and J. E. Atwood of PAST, INC. (2 pages).
Appendix B. EIC Records Search Results Letter and Report List (4 pages).
Appendix C. AB 52 Tribal Consultation Letters received by the City of Moreno Valley (4 pages).
Appendix D. Two photographs taken during the field inspection (1 page).

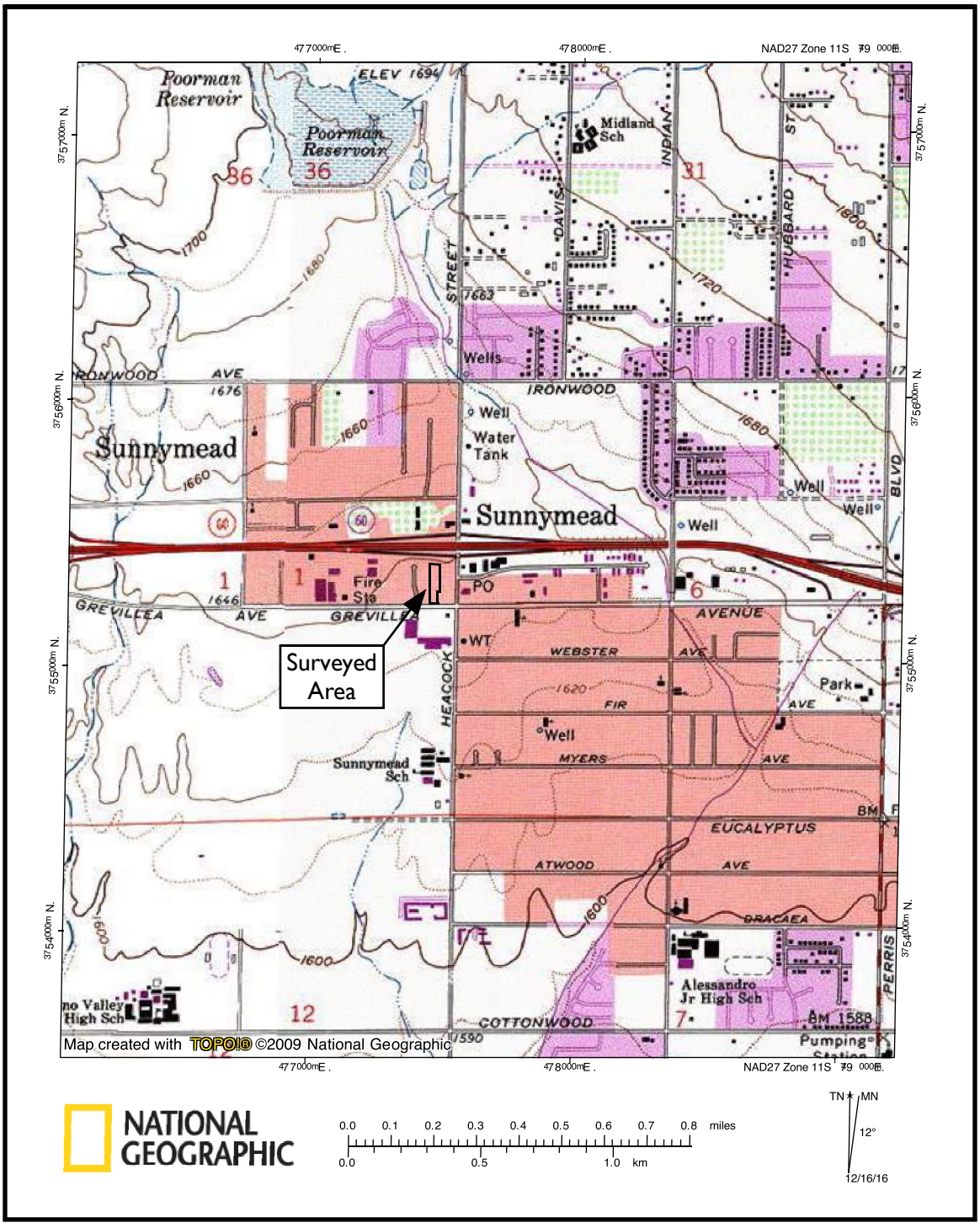

Figure 1. Location Map

Portions of the 1967 (photorevised 1980) editions of the USGS Riverside East and Sunnymead, Calif. 7.5-minute series topographic quadrangles showing the location of the area surveyed for cultural resources (outlined); APN 292-160-023 (1.68 acres) located north of Sunnymead Blvd (shown as Grevillea Ave) and west of Heacock St., City of Moreno Valley, Riverside County, California (note: specific address pending).

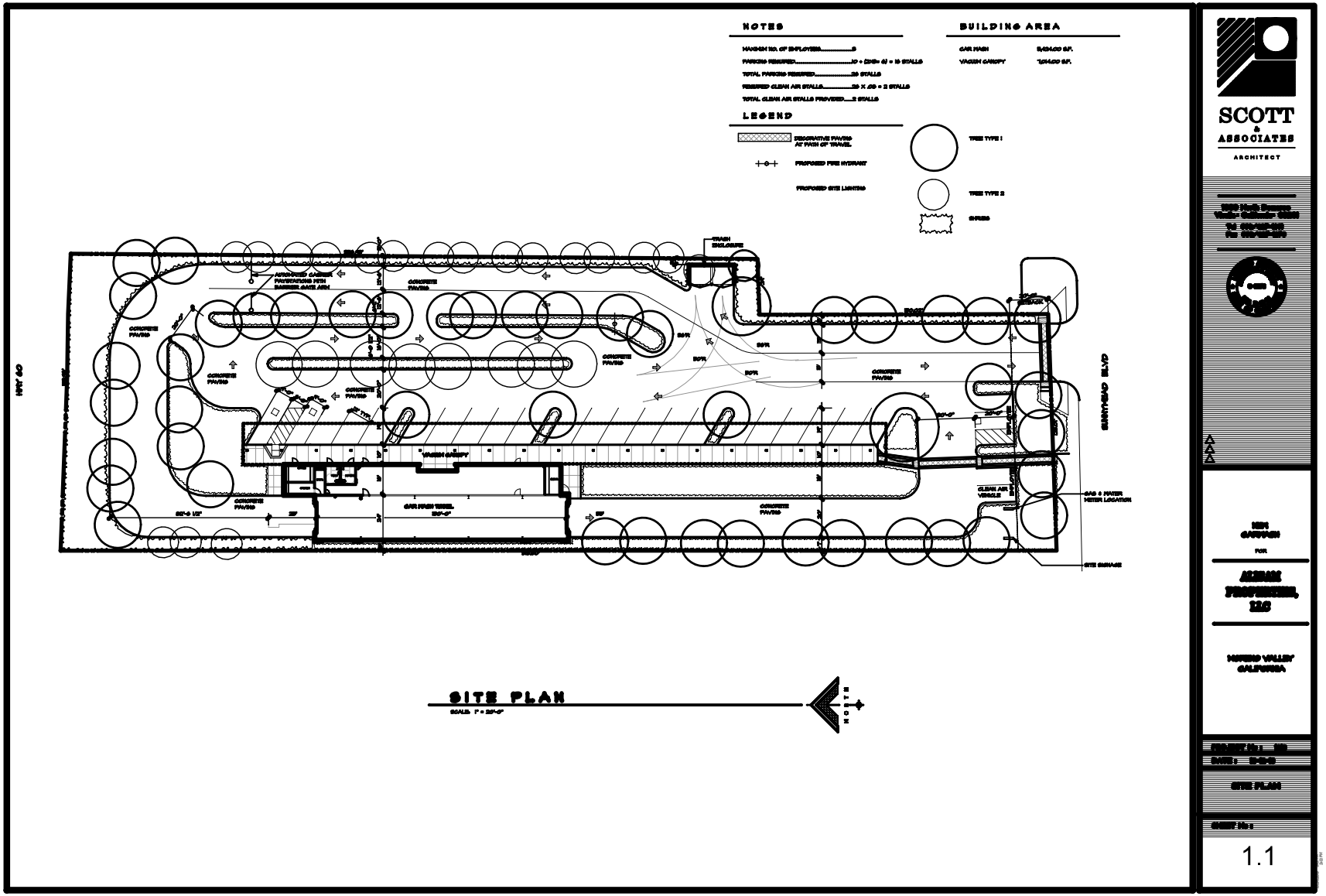

Figure 2. Site Plan for fully automated car wash on APN 292-160-023 prepared by Scot & Associates Architect, Visalla, California

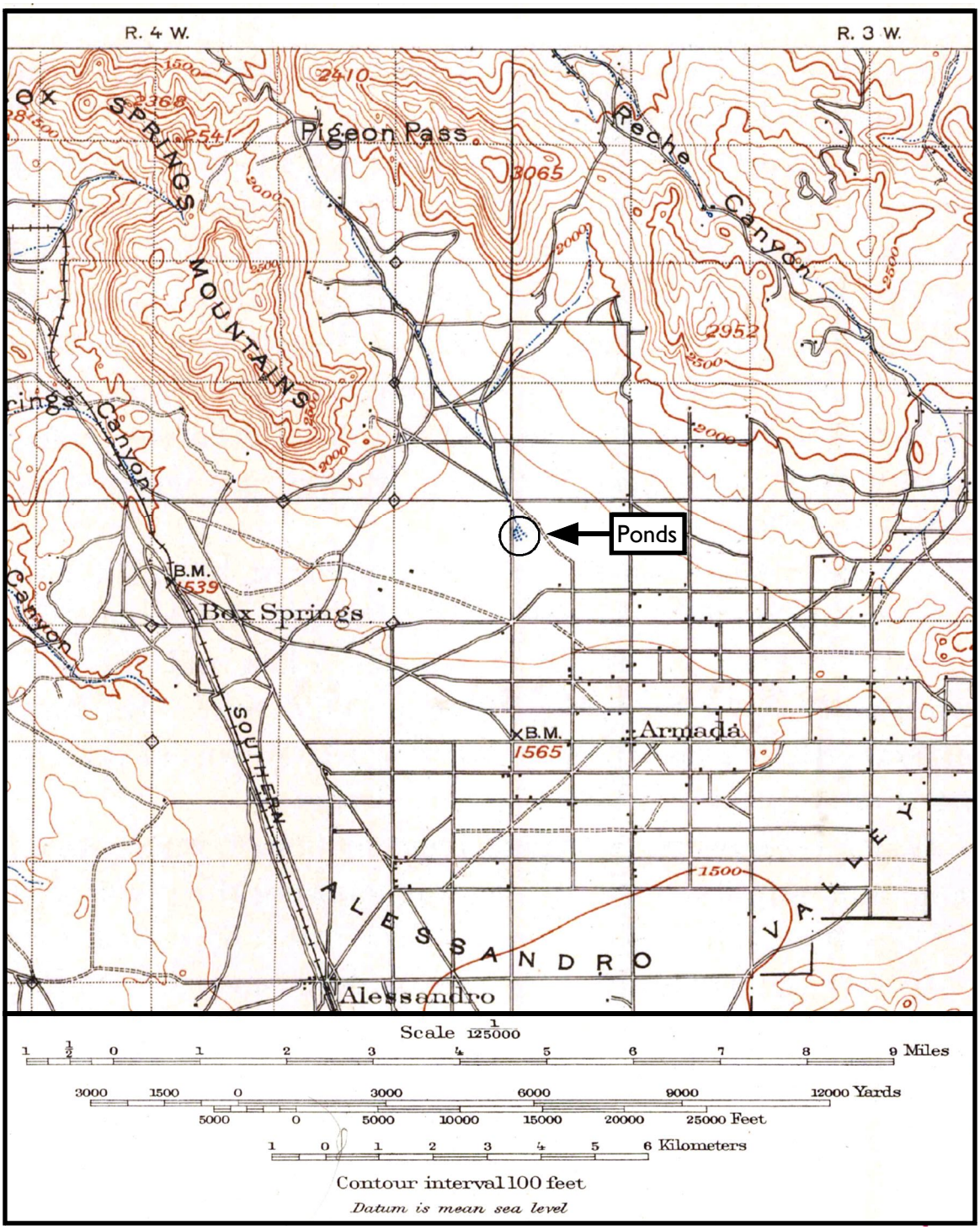

Figure 3. 1901 Historic Map

A portion of the historic 1901 edition of the USGS Elsinore, Calif. 1:125,000-scale topographic quadrangle showing the nearby terminus of an intermittent stream where a series of small ponds are depicted (a seasonal marsh?). Although electronic plotting on the USGS Historical Topographic Map Explorer website (http://historicalmaps.arcgis.com/usgs/) plots this feature at the northern boundary of APN 292-160-023, the subject property is located on the west side of Heacock Street indicating an original mapping or subsequent projection error.

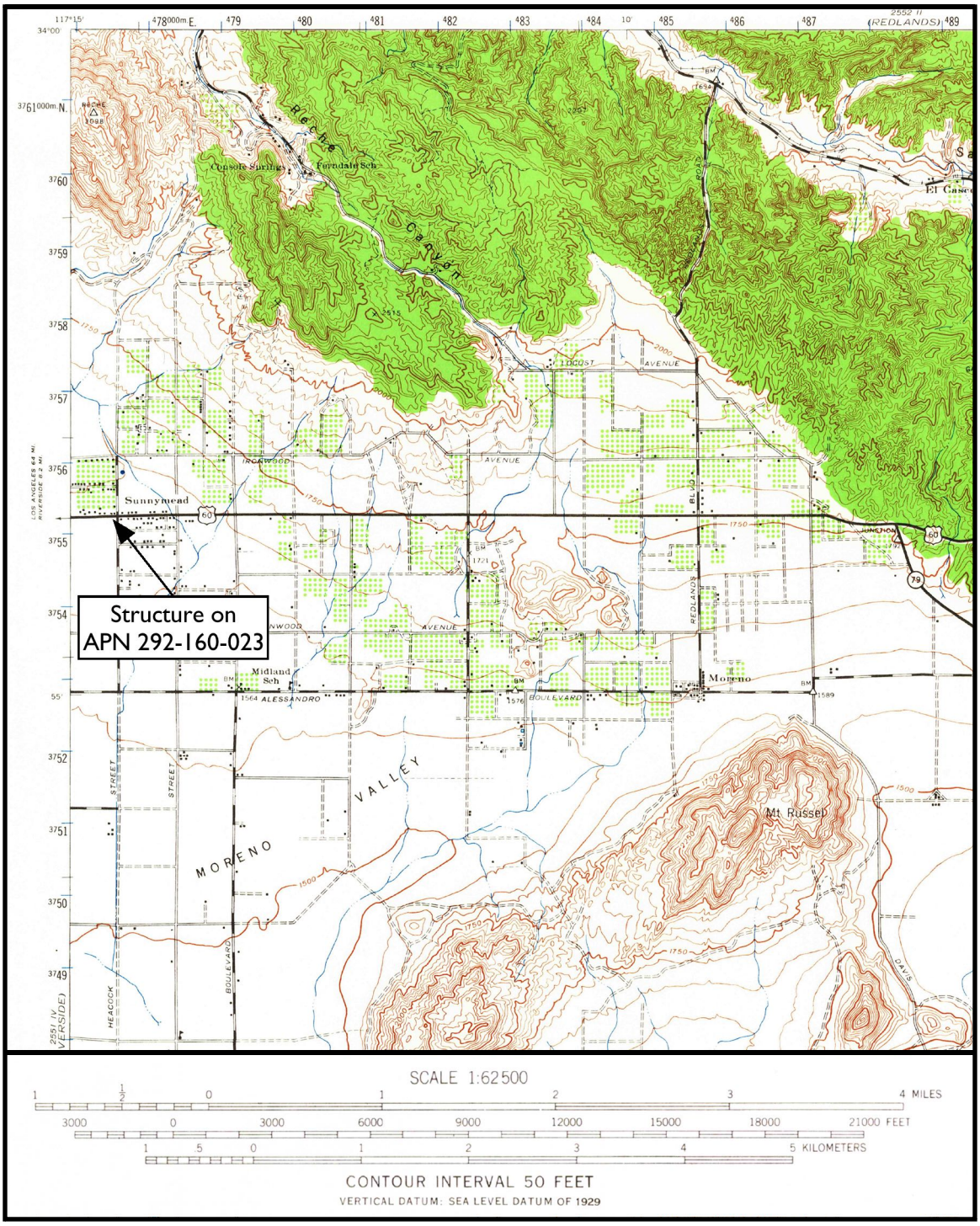

Figure 4. 1942 Historic Map

A portion of the 1942 edition of the U.S. Department of the Army, Corps of Engineers Perris, Calif. 15-minute series topographic quadrangle showing a structure on APN 292-160-023 along California State Highway 60 (arrow pointing to the second structure on the north side of Sunnymead Blvd., just west of Heacock Street). Following historic areial photos, the structure was removed or demolished sometime between 1966 and 1967. Also note that area to the north of the stucture was used for orchard lands.

Figure 5. 1966 Historic Aerial Photo

A historic aerial photo taken on April 16, 1966 showing a structure that was once present on APN 292-160-023 (circled). This structure was developed prior to 1939 (following the 1942 edition of the U.S. Department of the Army, Corps of Engineers Perris, Calif. 30-minute series topographic quadrangle) and was demolished shortly after this photo was taken (the structure is no longer present on the 1967 aerial photo). Source: www.HistoricAerials.com

Appendix A

Statement of Qualifications

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Barbie Getchell and John E. Atwood of PAST, INC.

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2 pages

BARBIE GETCHELL
PAST, INC.
Principal Investigator / Archaeologist

Ms. Getchell is certified in field research by the Register of Professional Archaeologists (RPA) and meets the current Secretary of the Interior Standards for archaeological research. Barbie received her M.A. in History (archaeological emphasis) from the University of Durham in the UK and her B.A. from the University of California, Los Angeles. She is well versed in all aspects of the archaeological evaluation process including prehistory and historic studies. Her experience in the field includes testing, surveys, and monitoring projects in, Kern, Los Angeles, Orange, Riverside, San Luis Obispo, Santa Barbara, and Ventura Counties, the Tahoe National Forest, and Santa Cruz Island in California as well as projects in Idaho and Nevada. Work experience abroad includes archaeological projects in Belize and the United Kingdom.

TECHNICAL CAPABILITIES

- Specializes in developing database applications for archaeological research and non-archaeological applications. Also experienced in the use of computer interfacing Global Positioning Systems (GPS) mapping and Internet web page development and design.
- Extensive technical report writing experience. Report types include: archaeological technical reports (Phase I, II, and III, and monitoring); research designs; cultural resource management plans; EIR/EIS section preparation; and ethnographic, historic, and historic map research.
- Proven leadership and project management skills as a Principal Investigator, Laboratory Director, Contract Supervisor, Field Director, and Database Administrator.
- Extensive experience with computer software such as Microsoft Access, Excel, PowerPoint and Word, WordPerfect for Windows, Corel Draw, as well as many others.

- **EDUCATION**

- Master of Arts Degree, History (archaeological emphasis), University of Durham, UK (1993)
- Bachelor of Arts Degree, Anthropology, University of California, Los Angles (1990)

- **ASSOCIATIONS**

- Register of Professional Archaeologists
-
- Archaeological Institute of America

- **SELECTED PROJECT EXPERIENCE**

Federal Lands
- Numerous field and laboratory projects on Edwards AFB including the Bacon-Darr Adobe, Pancho Barnes' 'Happy Bottom Riding Club", Gen. Henry H. 'Hap' Arnold's 1930s camp, etc.
- Various Cultural Resources Inventories in the Tahoe National Forest

Public Works
- Cultural Resources Monitoring of the Stranwood Ave. to Sepulveda Blvd. Drain project, Los Angeles County, CA
- Cultural Resources Inventory and Impact Assessment for the Los Angeles County Department of Public Works in Lancaster, CA.
- Test Excavations at Friendship County Park, San Pedro, Los Angeles County, CA.

Commercial / Private Developments
- Archaeological Testing and Mitigation at P-40-001888 on the Serenade Tract in Paso Robles, San Luis Obispo, CA.
- Weinberg Village portion of the Emma Stern Village at Camp JCA Sholom, Malibu, Los Angeles County, CA.
- Archaeological Testing at P-15-002572, -004424, -004425, and -004426 on TPM No. 10157 in the City of Rosamond, Kern County, CA.
- Data Recovery program at P-19-000129 for the PAZAR Associates and The Home Depot in City of Calabasas, CA.

Studies Abroad
- Rio Brava Project in Belize, Central America.
- Evidence from the Sutton Hoo Cemetery for the Development of Early Anglo-Saxon Kingship in England (M.A. Thesis).

JOHN E. ATWOOD
PAST, INC.
President / Project Archaeologist

Mr. Atwood has been actively participating in archaeological investigations since the early 1980s, where he specializes in project administration and data management. After receiving his B.A. degree in anthropology from California State University, Northridge in 1984, John has spent most his professional career in archaeology with only two cultural resources management firms including being a cofounder of PAST, INC. in 1995. Overall, he has participated in more than 365 archaeological research projects and has written more than 335 technical reports. His regional field experience includes surveys, testing, data recovery and monitoring projects in Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura counties in California as well as performing archival research for studies Idaho, Oregon, and Utah.

TECHNICAL CAPABILITIES

- Professional experience includes: client and Lead Agency negotiations; detailed project proposals, budgets, and logistics; contract preperation; hiring of personnel and specialists: field and laboratory supervision: data analysis; report preparation; curation; and payroll and accounting.
- Extensive technical report writing experience (more than 335). Report types include: archaeological technical reports; Section 106 reports; resource management plans; research designs; preparation of EIR/EIS, lithic studies, ethnographic, historic, and archival research sections.
- Specializes in computer applications for archaeological research such as word processing, spreadsheets, mapping, graphics, and photography
- Other experiences include publishing (Knapper's Quarterly, a publication for about the knapper that contains articles about experimental archaeology and profiles of flintknappers); photography; internet site design and webpage development; and webserver operations.

EDUCATION

- Bachelor of Arts Degree, Anthropology, California State University Northridge (1984)

SELECTED PROJECT EXPERIENCE

- Federal Passport In Time (PIT) at Sulphur Springs Campground in the Angeles National Forest, California.
- Class III Study of a 55+ mile Southern California Gas Company Line from Niland to Calexico in Imperial County, California.
- Cultural resources inventory of six proposed ASR-11 sites to serve the R2508 Airspace in the High Desert Area of California that included project areas in Inyo, Kern, and San Bernardino counties.
- Archaeological and historical evaluations for the proposed airport surveillance detection equipment to serve LAX, Los Angeles County, California.
- Archaeological data recovery mitigation and monitoring in Shell Beach, San Luis Obispo County, California.
- Archaeological monitoring of the Weinberg Village portion of the Emma Stern Village at Camp JCA Sholom, Malibu, California.
- Cultural resources inventory of a 67.49-acre property in the community of Lake Isabella, Kern County, California
- Historic surveys of several irrigation waterways in the Boise Valley, Idaho.
- Cultural resource study of the Kern River Valley Specific Plan Area, 110,510 acres, in Kern County, California.
- Multi-phase evaluations in Oceano, CA

Appendix B

EIC Records Search Results Letter and Report List

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EIC-RIV-ST-4000

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4 pages

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

January 30, 2017
CHRIS Access and Use Agreement No.: 178
EIC- RIV-ST-4000

John E. Atwood
Past, Inc.
18034 Ventura Blvd. #202
Encino, CA 91316-3516

Re: Cultural Resources Records Search for the Phase I Survey of APN 292-160-023, Moreno Valley

Dear John E. Atwood,

We received your request on January 25, 2017, for a cultural resources records search for the Phase I Survey, Moreno Valley Project located in Section 1, T.3S, R.4W, SBBM, in the Sunnymead area in Riverside County. We have reviewed our site records, maps, and manuscripts against the location map you provided.

Our records indicate that five cultural resources studies have been conducted within a half-mile radius of your project area. One of these studies involved the project area. Eight additional studies provide overviews of cultural resources in the general project vicinity. PDF copies of these reports are included for your reference. All of these reports are listed on the attachment entitled "Eastern Information Center Report Listing" 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 three cultural resources properties have been recorded within a half-mile radius of your project area. None of these properties involved the project area. PDF copies of the records are included for your reference.

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: no listed properties are located within the boundaries of the project area.

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): one property (P-07285) is listed and appears eligible for inclusion on the National Register of Historic Places through survey evaluation. 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.

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,

Leslie Yee
Information Officer

Enclosures

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-00133	NADB-R - 1080150; Voided - MF-0114	1974	Thomas F. King, Mary A. Brown, Gerrit Fenenge, and Claudia Nissley	Archaeological Impact Evaluation: Southern California Edison Company's Devers-Vista 220 KV Transmission Line, Riverside County, California	Archaeological Research Unit, U.C. Riverside	
RI-00137	NADB-R - 1080155; Voided - MF-0117	1974	James F. O'Conell, Philip J. Wilke, Thomas F,. King, and Carol L. Mix	Perris Reservior Archaeology, Late Prehistoric Demographic Change in Southeastern California	Archaeological Research Unit, U.C. Riverside	33-000012, 33-000021, 33-000062, 33-000202, 33-000331, 33-000419, 33-000452, 33-000455, 33-000463, 33-000464
RI-00161	NADB-R - 1080200; Voided - MF-0144	1975	Roberta S. Greenwood	Paleontological, Archaeological, Historical, and Cultural Resources, West Coast-Midwest Pipeline Project, Long Beach to Colorado River	Greenwood and Associates	
RI-02050	NADB-R - 1082479; Other - DAC05-85-0033; Voided - MF-2244	1985	PERAULT, GORDON	PRELIMINARY HISTORIC INVENTORY - MARCH AIR FORCE BASE, CALIFORNIA	FIELDS AND SILVERMAN ARCHITECTS	
RI-02061	NADB-R - 1082496; Voided - MF-2260	1986	LERCH, MICHAEL	ARCHAEOLOGICAL SURVEY OF FESTIVAL AT MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR(S)	
RI-02171	NADB-R - 1082753; Submitter - 0870; Voided - MF-2358	1987	MCCARTHY, DANIEL F.	CULTURAL RESOURCES INVENTORY FOR THE CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	33-000361, 33-000395, 33-000497, 33-000857, 33-000860, 33-001063, 33-001064, 33-003223, 33-003224, 33-003225, 33-003226, 33-003227, 33-003228, 33-003229, 33-003230, 33-003231, 33-003232, 33-003233, 33-003234, 33-003235, 33-003236, 33-003237, 33-003238, 33-003239, 33-003240, 33-003241, 33-003242, 33-003243, 33-003244, 33-003245, 33-003246, 33-003247, 33-003248, 33-003249, 33-003250, 33-003254, 33-003258, 33-003259, 33-003260, 33-003261, 33-003262, 33-003263, 33-003264, 33-003265, 33-003266, 33-003267, 33-003268, 33-003269, 33-003270, 33-003271, 33-003272, 33-003273, 33-003304, 33-003305, 33-003306, 33-003341, 33-003342, 33-003343, 33-003344, 33-003345, 33-003346, 33-003347, 33-003351, 33-003352, 33-003353

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-04813	NADB-R - 1086175; Other - 118, 119, 120, 121, 122, 123	1993	NATIONAL PARK SERVICE, HAER	CALIFORNIA CITRUS HERITAGE RECORDING PROJECT: PHOTOGRAPHS, WRITTEN HISTORICAL AND DESCRIPTIVE DATA, REDUCED COPIES OF MEASURED DRAWINGS FOR: ARLINGTON HEIGHT CITRUS LANDSCAPE, GAGE IRRIGATION CANAL, NATIONAL ORANGE COMPANY PACKING HOUSE, VICTORIA BRIDGE, AND UNION PACIFIC RAILROAD BRIDGE	NATIONAL PARK SERVICE, HISTORIC AMERICAN ENGINEERING RECORD	33-003361, 33-004768, 33-009772
RI-05088	NADB-R - 1086450	2005	CULTURAL SYSTEMS RESEARCH, INC.	ETHNOGRAPHIC OVERVIEW INLAND FEEDER PIPELINE PROJECT	CULTURAL SYSTEMS RESEARCH, INC.	
RI-06088	Caltrans - 08230-466900; NADB-R - 1087451	1998	BRICKER, DAVID	FIRST SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT FOR THE IMPROVEMENT OF INTERSTATE ROUTE 215/STATE ROUTE 91/ STATE ROUTE 60, RIVERSIDE COUNTY, CA	CALTRANS- DISTRICT 8	33-004495, 33-009681, 33-011517, 33-011521, 33-011523, 33-011537, 33-011539, 33-011561, 33-012149, 33-012150, 33-012151, 33-012152, 33-012153, 33-012154, 33-012155, 33-012156, 33-012157, 33-012158, 33-012159, 33-012160, 33-012162, 33-012163, 33-012164, 33-012165, 33-012166, 33-012167, 33-012168, 33-012169, 33-012170, 33-012171
RI-07862	Submitter - CRM TECH Contract No. 2228	2008	Smallwood, Josh, Terri Jacquemain, and Laura H. Shaker	Historical/ Archaeological Resources Survey Report Heacock Street Road-Widening Project City of Moreno Valley Riverside County, California	CRM TECH	33-017202, 33-017203
RI-08078		2008	ECORP Consulting, Inc.	Cultural Resource Inventory of Proposed Improvements to Indian Detention Basin and Ironwood Avenue in the City of Moreno Valley Riverside, California	ECORP Consulting, Inc.	
RI-08235		2001	James E. Workman	Cupules A Type of Petroglyphic Rock Art. A Study of the Pitted Boulders in the San Jacinto Wildlife Area and the Lake Perris State Recreational Area	Indian Rock Art Specialist	33-000012, 33-000062, 33-000202, 33-000331, 33-000395, 33-000419, 33-000421, 33-000428, 33-000452, 33-000464
RI-09385		2015	Mathew M. DeCarlo and Diane L. Winslow	Engineering Refinement Survey and Recommendation of Eligibility for Cultural Resources with Southern California Edison Company's West of Devers Upgrade Project, Riverside and San Bernardino Counties, California	ASM Affiliates	

Appendix C

AB 52 Tribal Consultation Letters received by the City of Moreno Valley
(supplied to PAST, INC. for review)

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4 pages

AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-024-2016-012

November 15, 2016

[VIA EMAIL TO:gabrield@moval.org]
City of Moreno Valley
Mr. Gabriel Diaz
14177 Frederick Street, P.O. Box 88005
Moreno Valley, CA 92552-0805

Re: AB 52 Consultation for P 16-0077

Dear Mr. Gabriel Diaz,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the PA16-0077 project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area (TUA). For this reason, the ACBCI THPO requests the folllowing:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

*A copy of the records search with associated survey reports and site records from the information center.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6981. You may also email me at vharvey@aguacaliente.net.

Cordially,

V. Harvey

Victoria Harvey
Archaeological Monitoring Coordinator
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

November 29, 2016

Attn: Gabriel Diaz, Associate Planner
City of Moreno Valley
Community Development Department, Planning Division
14177 Frederick Street
Moreno Valley, CA 92552-0805

RE: AB 52 Consultation; PA16-0077 – northwesterly of Sunnymead & Boulevard and Heacock Street (APN 292-160-023)

The Soboba Band of Luiseño Indians has received your notification pursuant under Assembly Bill 52.

Soboba Band of Luiseño Indians is requesting to initiate formal consultation with the City of Moreno Valley. A meeting can be scheduled by contacting me via email or phone. All contact information has been included in this letter.

I look forward to hearing from and meeting with you soon.

Sincerely,

Joseph Ontiveros, Director of Cultural Resources
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

November 23, 2016

VIA E-MAIL and USPS

Gabriel Diaz
Case Planner
City of Moreno Valley
Community Development Department
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552-0805

Re: Pechanga Tribe Request for Consultation Pursuant to AB 52 for the Moreno Valley Carwash Project (PA16-0077)

Dear Mr. Diaz;

This letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe" and/or "Payómkawichum"), a federally recognized Indian tribe and sovereign government in response to the AB 52 notice provided by the City of Moreno Valley dated November 1, 2016 and received in our office November 9, 2016.

This letter serves as the Tribe's formal request to begin consultation under AB 52 for this Project. Per AB 52, we intend to assist the City in determining the type of environmental document that should be prepared for this Project (i.e. EIR, MND, ND); with identifying potential tribal cultural resources (TCRs); determining whether potential substantial adverse effects will occur to them; and to develop appropriate preservation, avoidance and/or mitigation measures, as appropriate. Preferred TCR mitigation is always avoidance and the Tribe requests that all efforts to preserve sensitive TCRs be made as early in the development process as possible.

Please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, development plans, conceptual grading plans (if available), and all other applicable documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project, and that these comments be incorporated into the record of approval for this Project.

The Pechanga Tribe asserts that the Project area is part of Payómkawichum (Luiseño), and therefore the Tribe's, aboriginal territory as evidenced by the existence of Payómkawichum cultural resources, named places, *tóota yixélval* (rock art, pictographs, petroglyphs), and an extensive Payómkawichum artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as our extensive history with the City and other projects within the area. During our consultation we will provide more specific, confidential information on potential TCRs that may be impacted by the proposed Project.

As you know, the AB 52 consultation process is ongoing and continues until appropriate mitigation has been agreed upon for the TCRs that may be impacted by the Project. As such, under both AB 52 and CEQA, we look forward to working closely with the City on ensuring that a full, comprehensive environmental review of the Project's impacts is completed, including addressing the culturally appropriate and respectful treatment of human remains and inadvertent discoveries.

In addition to those rights granted to the Tribe under AB 52, the Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. The formal contact person for this Project will be Ebru Ozdil. Please contact her at 951-770-8113 or at eozdil@pechanga-nsn.gov within 30 days of receiving these comments so that we can begin the consultation process. Thank you.

Sincerely,

Ebru Ozdil
Planning Specialist

cc Pechanga Office of the General Counsel

Appendix D

Two photographs taken during the field inspection

—

APN 292-160-023, Moreno Valley, Riverside County, California

—

1 page

Appendix D. Two photographs taken during the field inspection

Photograph 1. Facing south from the northern end of the subject property, this photo shows the general condition of the parcel at the time of the inspection. Note the dense growth of weedy annuals in the foreground, the clear graded patch of land in the center, and the southern portion along Sunnymead Blvd. Photo taken by John E. Atwood on February 10, 2017.

Photograph 2. Facing north, this photo shows the northeast corner of the subject property, which is currently used as a small homeless encampment. Note the old existing pavement and the abundant amount of neoteric refuse strewn about the area (some of which, spills over onto the earthen portion of the parcel to the west). Photo taken by John E. Atwood on February 10, 2017.

Attachment: Appendix C - Phase I Cultural Resources Technical Report (2913 : PEN16-0113 Plot Plan)

Appendix D Noise Modeling Files

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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/10/2017
Case Description: Grading

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Auto Care (W)	Commercial	65	65	65

			Equipment			
			Spec	Actual	Receptor	Estimated
		Impact	Lmax	Lmax	Distance	Shielding
Description		Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader		No	40	85		100	0
Dozer		No	40		81.7	100	0
Tractor		No	40	84		100	0

		Results															
		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
				Day		Evening		Night		Day		Evening		Night			
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Grader		79	75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Tractor		78	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Total	79	78.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Fast Food (E)	Commercial	65	65	65

			Equipment			
			Spec	Actual	Receptor	Estimated
		Impact	Lmax	Lmax	Distance	Shielding
Description		Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader		No	40	85		120	0
Dozer		No	40		81.7	120	0
Tractor		No	40	84		120	0

		Results															
		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
				Day		Evening		Night		Day		Evening		Night			
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Grader		77.4	73.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Dozer		74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Tractor		76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Total	77.4	77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Service Station (E)	Commercial	65	65	65

			Equipment			
			Spec	Actual	Receptor	Estimated
		Impact	Lmax	Lmax	Distance	Shielding
Description		Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader		No	40	85		180	0
Dozer		No	40		81.7	180	0
Tractor		No	40	84		180	0

		Results															
		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
				Day		Evening		Night		Day		Evening		Night			
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Grader		73.9	69.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Dozer		70.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Tractor		72.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Total	73.9	73.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/10/2017
Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Auto Care (W)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	100	0
All Other Equipment > 5 HP	No	50	85		100	0
Generator	No	50		80.6	100	0
Tractor	No	40	84		100	0
Welder / Torch	No	40		74	100	0
Welder / Torch	No	40		74	100	0
Welder / Torch	No	40		74	100	0

Equipment	Results Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79	76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Fast Food (E)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	120	0
All Other Equipment > 5 HP	No	50	85		120	0
Generator	No	50		80.6	120	0
Tractor	No	40	84		120	0
Welder / Torch	No	40		74	120	0
Welder / Torch	No	40		74	120	0
Welder / Torch	No	40		74	120	0

Equipment	Results Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Crane	72.9	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	77.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	73	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.4	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Service Station (E)	Commercial	65	65	65

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	180	0
All Other Equipment > 5 HP	No	50	85		180	0
Generator	No	50		80.6	180	0
Tractor	No	40	84		180	0
Welder / Torch	No	40		74	180	0
Welder / Torch	No	40		74	180	0
Welder / Torch	No	40		74	180	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	69.4	61.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73.9	70.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	69.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	72.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.9	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/10/2017
Case Description: Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Auto Care (W)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	100	0
Paver	No	50		77.2	100	0
All Other Equipment > 5 HP	No	50	85		100	0
Roller	No	20		80	100	0
Tractor	No	40	84		100	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Mixer Truck	72.8	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79	76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	74	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79	79.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Fast Food (E)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	120	0
Paver	No	50		77.2	120	0
All Other Equipment > 5 HP	No	50	85		120	0
Roller	No	20		80	120	0
Tractor	No	40	84		120	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Mixer Truck	72.9	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.4	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Service Station (E)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	180	0
Paver	No	50		77.2	180	0
All Other Equipment > 5 HP	No	50	85		180	0
Roller	No	20		80	180	0
Tractor	No	40	84		180	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	69.4	61.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	73.9	70.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	69.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	72.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.9	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/10/2017
Case Description: Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Auto Care (W)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	100	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Fast Food (E)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	120	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	70.1	66.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.1	66.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Service Station (E)	Commercial	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	180	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	66.5	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.5	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Sunnymead Car Wash
Construction Vibration Screening

Receptors	Distance (ft)
1 – Auto Care (W)	100
2 – Fast Food Restaurant (E)	120
3 – Service Station (E)	180

Equipment	PPVref	D	n	Eref	Eequip	PPV
Vibratory Roller	0.21	100	1.3			0.0346
Vibratory Roller	0.21	120	1.3			0.0273
Vibratory Roller	0.21	180	1.3			0.0161
Small Bulldozer	0.003	100	1.3			0.0005
Small Bulldozer	0.003	120	1.3			0.0004
Small Bulldozer	0.003	180	1.3			0.0002
Loaded Truck	0.076	100	1.3			0.0125
Loaded Truck	0.076	120	1.3			0.0099
Loaded Truck	0.076	180	1.3			0.0058
Jackhammer	0.035	100	1.3			0.0058
Jackhammer	0.035	120	1.3			0.0046
Jackhammer	0.035	180	1.3			0.0027

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RESULTS: SOUND LEVELS — Sunnymead Car Wash

MIG — 10 May 2017
MIG — TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Sunnymead Car Wash
RUN: Existing 2017
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden Calculated	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
50 Feet from Roadway Centerline	1	1	0.0	73.7	0	73.7	0	Snd Lvl	73.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

RESULTS: SOUND LEVELS — Sunnymead Car Wash

MIG — 10 May 2017
MIG — TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Sunnymead Car Wash
RUN: Plus Project 2017
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden Calculated	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
50 Feet from Roadway Centerline	1	1	0.0	73.8	0	73.8	0	Snd Lvl	73.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • MATERIALS TESTING & INSPECTION • FORENSIC • LABORATORY

SALEM
engineering group, inc.

PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED WATER DROPS CARWASH
SUNNYMEAD BOULEVARD & HEACOCK STREET
APN 292-160-023
MORENO VALLEY, CALIFORNIA
PEN16-0113

SALEM PROJECT NO. 3-216-1097
OCTOBER 24, 2016

PREPARED FOR:

MR. BIJAN SHAHMORADI
P&N CONSTRUCTION, TRI-MILLENNIUM PROPERTIES
8730 WILSHIRE BOULEVARD, SUITE 202
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October 24, 2016 Project No. 3-216-1097

Mr. Bijan Shahmoradi
P&N Construction, Tri-Millennium Properties
8730 Wilshire Boulevard, Suite 202
Beverley Hills, CA 90211

SUBJECT: PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED WATER DROPS CARWASH
SUNNYMEAD BOULEVARD & HEACOCK STREET
APN 292-160-023
MORENO VALLEY, CALIFORNIA

Dear Mr. Shahmoradi:

At your request and authorization, SALEM Engineering Group, Inc. (SALEM) has prepared this Preliminary Geotechnical Engineering Investigation report for the Proposed Water Drops Carwash to be located at the subject site.

The accompanying report presents our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, the proposed project is feasible from a geotechnical viewpoint provided our recommendations are incorporated into the design and construction of the project. We appreciate the opportunity to assist you with this project. Should you have questions regarding this report or need additional information, please contact the undersigned at (909) 980-6455.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Clarence Jiang, GE
Senior Geotechnical Engineer
RGE 2477

R. Sammy Salem, MS, PE, GE
Principal Engineer
RCE 52762 / RGE 2549

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PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED WATER DROPS CARWASH
NEAR SUNNYMEAD BOULEVARD & HEACOCK STREET
APN 292-160-023
MORENO VALLEY, CALIFORNIA

1. PURPOSE AND SCOPE

This report presents the results of our Preliminary Geotechnical Engineering Investigation for the Proposed Water Drops Carwash to be located near the intersection of Sunnymead Boulevard and Heacock Street in Moreno Valley, California (see Figure 1, Vicinity Map).

The purpose of our preliminary geotechnical engineering investigation was to observe and sample the subsurface conditions encountered at the site, and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed.

The scope of this investigation included a field exploration, laboratory testing, engineering analysis and the preparation of this report. Our field exploration was performed on October 10, 2016 and included the drilling of five (5) small-diameter soil borings to a maximum depth of 36 feet at the site. Additionally, two (2) percolation tests were performed on October 11, 2016 at depths of approximately 10 to 20 feet below existing grade for determination of the percolation rate. The locations of the soil borings and percolation tests are depicted on Figure 2, Site Plan. A detailed discussion of our field investigation, exploratory boring logs and percolation test results are presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to evaluate pertinent physical properties for engineering analyses. Appendix B presents the laboratory test results in tabular and graphic format.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions.

If project details vary significantly from those described herein, SALEM should be contacted to determine the necessity for review and possible revision of this report. Earthwork and Pavement Specifications are presented in Appendix C. If text of the report conflict with the specifications in Appendix C, the recommendations in the text of the report have precedence.

2. PROJECT DESCRIPTION

Based on information provided to us, we understand that the proposed development of the site will include construction of a carwash facility on a vacant undeveloped land. The facility will include a carwash tunnel building, a vacuum canopy, automated cashier pay stations, and a trash enclosure. On-site parking and

landscaping are planned to be associated with the development. Maximum wall load is expected to be on the order of 2.5 kips per linear foot. Maximum column load is expected to be on the order of 50 kips. Floor slab soil bearing pressure is expected to be on the order of 150 psf.

Concrete and asphaltic concrete pavement for parking area, customers travel lanes, and truck lane are to be designed for standard duty and heavy-duty traffic loading based on an Equivalent Single Axle Load (ESAL) of 18 kips, a maximum load of 60,000 ESAL and a design life of 20 years. The pavement design recommendations provided herein are based on the State of California Department (CALTRANS) design manual.

A site grading plan was not available at the time of preparation of this proposal. As the existing project area is essentially level, we anticipate that cuts and fills during the earthwork will be minimal and limited to providing a level building pad and positive site drainage. In the event that changes occur in the nature or design of the project, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions of our report are modified. The site configuration and locations of proposed improvements are shown on the Site Plan, Figure 1.

3. SITE LOCATION AND DESCRIPTION

The site is rectangular in shape and encompasses approximately 1.68 acres. The subject site is located near the intersection of Sunnymead Boulevard and Heacock Street in the City of Moreno Valley, California (see Vicinity Map, Figure 1). The site is currently vacant with sparse vegetation and debris. The site is predominantly surrounded by commercial and residential developments. The site is relatively flat with no major changes in grade. The average elevation of the site is approximately 1,644 feet above mean sea level (AMSL), based on Google Earth Imagery.

4. FIELD EXPLORATION

Our field exploration consisted of site surface reconnaissance and subsurface exploration. The exploratory test borings (B-1 through B-5) were drilled on October 10, 2016 in the area shown on the Site Plan, Figure 2. The test borings were advanced with an 8-inch diameter hollow stem auger and a 4-inch diameter solid-flight auger rotated by a truck-mounted CME-45C drill rig. The test borings were advanced to a maximum depth of 36 feet below existing grade. Drilling was limited due to auger refusal on the dense soil.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer and stratification lines were approximated on the basis of observations made at the time of drilling. Visual classification of the materials encountered in the test borings were generally made in accordance with the Unified Soil Classification System (ASTM D2487). A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix "A." The logs of the test borings are presented in Appendix "A." The Boring Logs include the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The location of the test borings were determined by measuring from features shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants. The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Logs in Appendix "A" should be consulted.

Soil samples were obtained from the test borings at the depths shown on the logs of borings. The MCS samples were recovered and capped at both ends to preserve the samples at their natural moisture content; SPT samples were recovered and placed in a sealed bag to preserve their natural moisture content. The borings were backfilled with soil cuttings after completion of the drilling.

5. LABORATORY TESTING

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, shear strength, consolidation potential, expansion index, maximum density and optimum moisture determination, and gradation of the materials encountered.

In addition, chemical tests were performed to evaluate the corrosivity of the soils to buried concrete and metal. Details of the laboratory test program and the results of laboratory test are summarized in Appendix "B." This information, along with the field observations, was used to prepare the final boring logs in Appendix "A."

6. GEOLOGIC SETTING

The subject site is located within the Peninsular Range Geomorphic Province, an area characterized by active northeast trending strike slip faults, including the San Jacinto to the northwest, and the Elsinore to the southwest. The project site is situated between the Santa Rosa Mountains and the San Jacinto Mountains to the east; and Santa Ana Mountains to the west and south. The near-surface deposits in the vicinity of the subject site are comprised of recent alluvium consisting of unconsolidated sands, silt, and clays derived from erosion of local mountain ranges. Deposits encountered on the subject site during exploratory drilling are discussed in detail in this report.

7. GEOLOGIC HAZARDS

7.1 Faulting and Seismicity

The Peninsular Range has historically been a province of relatively high seismic activity. The nearest faults to the project site are associated with the San Jacinto Fault system located approximately 4.2 miles from the site. There are no known active fault traces in the project vicinity. Based on mapping and historical seismicity, the seismicity of the Peninsular Range has been generally considered high by the scientific community.

The project area is not within an Alquist-Priolo Earthquake Fault (Special Studies) Zone and will not require a special site investigation by an Engineering Geologist. Soils on site are classified as Site Class D in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, we used the United States Geological Survey (USGS) web-based application *2008 National Seismic Hazard Maps - Fault Parameters*. Site latitude is 33.9402° North; site longitude is -117.2450° West. The ten closest active faults are summarized below in Table 7.1.

TABLE 7.1
REGIONAL FAULT SUMMARY

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
San Jacinto; SBV+SJV+A+CC+B+SM	4.2	7.9
San Jacinto; SBV	5.3	7.1
San Jacinto; A+CC+B+SM	8.5	7.6
S. San Andreas; PK+CH+CC+BB+NM+SM+NSB+SSB+BG+CO	13.7	8.2
S. San Andreas; PK+CH+CC+BB+NM+SM+NSB	14.5	8.0
Elsinore; W+GI+T+J+CM	18.4	7.8
Cucamonga	20.1	6.7
Chino, alt 2	20.1	6.8
Elsinore; T+J+CM	20.5	7.6

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

7.2 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

7.3 Ground Shaking

We used the USGS web-based application *US Seismic Design Maps* to estimate the peak ground acceleration adjusted for site class effects (PGA_M). Because of the proximity to the subject site and the maximum probable events for these faults, it appears that a maximum probable event along the fault zones could produce a peak horizontal acceleration of approximately 0.647g (2% probability of being exceeded in 50 years). While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site.

7.4 Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. However, liquefaction has occurred in soils other than clean sand.

The soils encountered within the depth of 50 feet on the project site consisted predominately of silty sand with varying amounts of clay, silty sand/sandy silt with trace clay, and sandy silt with varying amounts

of clay. The depth of groundwater within the vicinity of the site is estimated to be at a depth of approximately between 70 to 90 feet below ground surface according to the State Water Resources Control Board Geotracker website (http://geotracker.waterboards.ca.gov) records of Fastrip #13 (T0606500482) leaking underground storage tank (LUST) site, located at 23991 Sunnymead Boulevard, which is located approximately 150 south of subject site, and on the south side of Sunnymead Boulevard. The Riverside County Office of Information Technology GIS website: http://mmc.rivcoit.org/MMC_Public/Viewer.html?Viewer=MMC_Public does not show the subject site to be in a high or moderate liquefaction potential area.

Low to very low cohesion strength is commonly associated with the sandy soil profile at the site. A seismic hazard, which could cause damage to the proposed development during seismic shaking, is the post-liquefaction settlement of liquefied sands. The site was evaluated for liquefaction potential. The liquefaction analysis indicated that the soils had a low potential for liquefaction under seismic conditions, therefore no mitigation measures are warranted.

7.5 Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography and low liquefaction potential, we judge the likelihood of lateral spreading to be low.

7.6 Landslides

There are no known landslides at the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

7.7 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site. Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

8. SOIL AND GROUNDWATER CONDITIONS

8.1 Subsurface Conditions

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils within the depth of exploration consisted of alluvium deposits of medium dense to very dense silty sand with varying amounts of clay, medium dense to very dense silty sand/sandy silt with trace clay, and stiff to hard sandy silt.

Fill materials may be present onsite beyond our boring location. Undocumented fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspect the bottom of the excavation to verify the fill condition.

The soils were classified in the field during the drilling and sampling operations. The stratification lines were approximated by the field engineer on the basis of observations made at the time of drilling. The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Logs in Appendix "A" should be consulted. The Boring Logs include the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The locations of the test borings were determined by measuring from feature shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants.

8.2 Groundwater

The test boring locations were checked for the presence of groundwater during and after the drilling operations. Free groundwater was not encountered during this investigation. The depth of groundwater within the vicinity of the site is estimated to be at a depth of approximately between 70 to 90 feet below ground surface according to the State Water Resources Control Board Geotracker website (http://geotracker.waterboards.ca.gov) records of Fastrip #13 (T0606500482) leaking underground storage tank (LUST) site, located at 23991 Sunnymead Boulevard, which is located approximately 150 south of the subject site.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, localized pumping, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

8.3 Soil Corrosion Screening

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. The 2011 Edition of ACI 318 (ACI 318) has established criteria for evaluation of sulfate and chloride levels and how they relate to cement reactivity with soil and/or water.

A soil sample was obtained from the project site and was tested for the evaluation of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts and soluble chloride. The water-soluble sulfate concentration in the saturation extract from the soil sample was detected to be 145 mg/kg. ACI 318 Tables 4.2.1 and 4.3.1 outline exposure categories, classes, and concrete requirements by exposure class. ACI 318 requirements for site concrete based upon soluble sulfate are summarized in Table 8.3 below.

TABLE 8.3
WATER SOLUBLE SULFATE EXPOSURE REQUIREMENTS

Water Soluble Sulfate (SO_4) in Soil, Percentage by Weight	Exposure Severity	Exposure Class	Maximum w/cm Ratio	Minimum Concrete Compressive Strength	Cementations Materials Type
0.0145	Not Applicable	S0	N/A	2,500 psi	No Restriction

The water-soluble chloride concentration detected in saturation extract from the soil samples was 166 mg/kg. This level of chloride concentration is not considered severely corrosive. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, applicable manufacturer's recommendations for corrosion protection of buried metal pipe be closely followed.

8.4 Percolation Testing

Two percolation tests (P-1 and P-2) were performed within assumed infiltration areas and were conducted in accordance with in accordance with the guidelines established by the County of Riverside. The approximate locations of the percolation tests are shown on the attached Site Plan, Figure 2.

Eight-inch diameter boreholes were advanced to the depths shown on the percolation test worksheets. The holes were pre-saturated a minimum of 18 hours and maximum of 24 hours before percolation testing commenced. Percolation rates were measured by filling the test holes with clean water and measuring the water drops at a certain time interval.

The percolation rate data are presented in tabular format at the end of this Report. The difference in the percolation rates are reflected by the varied type of soil materials at the bottom of the test holes. The test results are shown on the table below.

Test No.	Depth (feet)	Measured Percolation Rate (min/inch)	Tested Infiltration Rate* (inch/hour)	Soil Type
P-1	10	31.3	0.14	Silty SAND /Sandy SILT (SM/ML) with clay
P-2	20	20.8	0.24	Silty SAND (SM) with clay

*** Tested infiltration Rate = (ΔH 60 r) / (Δt(r + 2H$_{avg}$))**

The soil infiltration or percolation rates are based on tests conducted with clear water. The infiltration/percolation rates may vary with time as a result of soil clogging from water impurities. The infiltration/percolation rates will deteriorate over time due to the soil conditions and an appropriate factor of safety (FS) may be applied. The owner or civil engineer may elect to use a lower FS for the design; however, more frequent maintenance will be expected. The soils may also become less permeable to impermeable if the soil is compacted. Thus, periodic maintenance consisting of clearing the bottom of the drainage system of clogged soils should be expected.

The infiltration/percolation rate may become slower if the surrounding soil is wet or saturated due to prolonged rainfalls. Additional percolation tests may be conducted at bottom of the drainage system during construction to verify the infiltration/percolation rate. Groundwater, if closer to the bottom of the drainage system, will also reduce the infiltration/percolation rate.

The scope of our services did not include a groundwater study and was limited to the performance of percolation testing and soil profile description, and the submitted data only. Our services did not include those associated with septic system design. Neither did services include an Environmental Site Assessment

for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands.

Any statements, or absence of statements, in this report or on any boring logs regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices. The work conducted through the course of this investigation, including the preparation of this report, has been performed in accordance with the generally accepted standards of geotechnical engineering practice, which existed in the geographic area at the time the report was written. No other warranty, express or implied, is made.

Please be advised that when performing percolation testing services in relatively small diameter borings, that the testing may not fully model the actual full scale long term performance of a given site. This is particularly true where percolation test data is to be used in the design of large infiltration system such as may be proposed for the site.

The measured percolation rate includes dispersion of the water at the sidewalls of the boring as well as into the underlying soils. Subsurface conditions, including percolation rates, can change over time as fine-grained soils migrate. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction of improvements at the site as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

9.1.2 The primary geotechnical constraints identified in our investigation is the presence of potentially compressible material at the site. Recommendations to mitigate the effects of these soils are provided in this report.

9.1.3 Fill materials may be present onsite beyond our boring location. The fill materials consisted of loose to medium dense silty sand. Undocumented fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspect the bottom of the excavation to verify the fill condition.

9.1.4 Site demolition activities shall include removal of all surface obstructions not intended to be incorporated into final site design. In addition, underground buried structures and/or utility lines encountered during demolition and construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that possible demolition activities of the existing structures may disturb the upper soils. After demolition activities, it is recommended that disturbed soils be removed and/or recompacted.

9.1.5 The near-surface onsite soils are moisture-sensitive and are moderately compressible (collapsible soil) under saturated conditions. Structures within the project vicinity have experienced excessive post-construction settlement, when the foundation soils become near saturated. The collapsible or weak soils should be removed and recompacted according to the recommendations in the Grading section of this report.

9.1.6 Based on the subsurface conditions at the site and the anticipated structural loading, we anticipate that the proposed building may be supported using conventional shallow foundations or deep foundations provided that the recommendations presented herein are incorporated in the design and construction of the project.

9.1.7 Provided the site is graded in accordance with the recommendations of this report and foundations constructed as described herein, we estimate that total settlement due to static loads utilizing conventional shallow foundations for the proposed building will be within 1 inch and corresponding differential settlement will be less than 1 inch.

9.1.8 SALEM shall review the project grading and foundation plans prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required. If SALEM is not provided plans and specifications for review, we cannot assume any responsibility for the future performance of the project.

9.1.9 SALEM shall be present at the site during site demolition and preparation to observe site clearing/demolition, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill material.

9.1.10 SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. Moisture content of footings and slab subgrade should be tested immediately prior to concrete placement. SALEM should observe foundation excavations prior to placement of reinforcing steel or concrete to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report.

9.2 Seismic Design Criteria

9.2.1 For seismic design of the structures, and in accordance with the seismic provisions of the 2013 CBC, our recommended parameters are shown below. These parameters are based on Probabilistic Ground Motion of 2% Probability of Exceedance in 50 years. The Site Class was determined based on the results of our field exploration.

TABLE 9.2.1
2013 CBC SEISMIC DESIGN PARAMETERS

Seismic Item	Symbol	Value	2010 ASCE 7 or 2013 CBC Reference
Site Coordinates (Datum = NAD 83)		33.9402 Lat -117.2450 Lon	
Site Class	--	D	ASCE 7 Table 20.3
Soil Profile Name	--	Stiff Soil	ASCE 7 Table 20.3
Risk Category	--	II	CBC Table 1604.5
Site Coefficient for PGA	F_{PGA}	1.000	ASCE 7 Table 11.8-1
Peak Ground Acceleration (adjusted for Site Class effects)	PGA_M	0.647	ASCE 7 Equation 11.8-1
Seismic Design Category	SDC	D	ASCE 7 Table 11.6-1 & 2
Mapped Spectral Acceleration (Short period - 0.2 sec)	S_S	1.644 g	CBC Figure 1613.3.1(1-6)
Mapped Spectral Acceleration (1.0 sec. period)	S_1	0.715 g	CBC Figure 1613.3.1(1-6)
Site Class Modified Site Coefficient	F_a	1.000	CBC Table 1613.3.3(1)
Site Class Modified Site Coefficient	F_v	1.500	CBC Table 1613.3.3(2)
MCE Spectral Response Acceleration (Short period - 0.2 sec) $S_{MS} = F_a S_S$	S_{MS}	1.644 g	CBC Equation 16-37
MCE Spectral Response Acceleration (1.0 sec. period) $S_{M1} = F_v S_1$	S_{M1}	1.073 g	CBC Equation 16-38
Design Spectral Response Acceleration $S_{DS}=⅔S_{MS}$ (short period - 0.2 sec)	S_{DS}	1.096 g	CBC Equation 16-39
Design Spectral Response Acceleration $S_{D1}=⅔S_{M1}$ (1.0 sec. period)	S_{D1}	0.715 g	CBC Equation 16-40

9.2.2 Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

9.3 Soil and Excavation Characteristics

9.3.1 Based on the soil conditions encountered in our soil borings, the onsite soils can be excavated with moderate effort using conventional heavy-duty excavation equipment.

9.3.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable Occupational Safety and Health Administration (OSHA) rules and regulations to maintain safety and maintain the stability of adjacent existing improvements.

9.3.3 The upper soils are moisture-sensitive and moderately collapsible under saturated conditions. These soils, in their present condition, possess moderate risk to construction in terms of possible post-construction movement of the foundations and floor systems if no mitigation measures are

employed. Accordingly, measures are considered necessary to reduce anticipated expansion and collapse potential. As recommended in Section 9.5, the collapsible soils should be overexcavated and recompacted. Mitigation measures will not eliminate post-construction soil movement, but will reduce the soil movement. Success of the mitigation measures will depend on the thoroughness of the contractor in dealing with the soil conditions.

9.3.4 The near surface soils identified as part of our investigation are, generally, slightly moist to moist due to the absorption characteristics of the soil. Earthwork operations may encounter very moist unstable soils which may require removal to a stable bottom. Exposed native soils exposed as part of site grading operations shall not be allowed to dry out and should be kept continuously moist prior to placement of subsequent fill.

9.4 Materials for Fill

9.4.1 Excavated soils generated from cut operations at the site are suitable for use as general Engineered Fill in structural areas, provided they have an Expansion Index of 20 or less, do not contain deleterious matter, organic material, or rock material larger than 3 inches in maximum dimension.

9.4.2 Import soil shall be well-graded, slightly cohesive silty fine sand or sandy silt, with relatively impervious characteristics when compacted. A clean sand or very sandy soil is not acceptable for this purpose. This material should be approved by the Engineer prior to use and should typically possess the soil characteristics summarized below in Table 9.4.2.

TABLE 9.4.2
IMPORT FILL REQUIREMENTS

Minimum Percent Passing No. 200 Sieve	20
Maximum Percent Passing No. 200 Sieve	50
Minimum Percent Passing No. 4 Sieve	80
Maximum Particle Size	3"
Maximum Plasticity Index	12
Maximum CBC Expansion Index	20

9.4.3 The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since they have complete control of the project site.

9.4.4 Environmental characteristics and corrosion potential of import soil materials should also be considered.

9.4.5 Proposed import materials should be sampled, tested, and approved by SALEM prior to its transportation to the site.

9.5 Grading

9.5.1 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Geotechnical Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section as well as other portions of this report.

9.5.2 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance.

9.5.3 Site preparation should begin with removal of existing surface/subsurface structures, underground utilities (as required), any existing uncertified fill, and debris. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with Engineered Fill in accordance with the recommendations of this report.

9.5.4 Surface vegetation should be removed by stripping to a sufficient depth to remove organic-rich topsoil. The upper 2 to 4 inches of the soils containing, vegetation, roots and other objectionable organic matter encountered at the time of grading should be stripped and removed from the surface. Deeper stripping may be required in localized areas. The stripped vegetation will not be suitable for use as Engineered Fill but may be stockpiled and reused in landscape or non-structural areas or exported from the site.

9.5.5 To minimize post-construction soil movement and provide uniform support for the proposed structures, it is recommended that the overexcavation and recompaction within the proposed building area be performed to a minimum depth of **two (2)** feet below existing grade or proposed grade, whichever is deeper.

9.5.6 The overexcavation and recompaction should also extend laterally to a minimum of 5 feet beyond the outer edges of the proposed footings except in the areas where the lateral extension is restricted by the property lines. Shorings or slot cuts will be required for vertical cut along the property lines or existing footings.

9.5.7 Any fill materials encountered during grading should be removed and replaced with engineered fill. The actual depth of the overexcavation and recompaction should be determined by our field representative during construction.

9.5.8 Prior to placement of fill soils, the upper 10 to 12 inches of native subgrade soils should be scarified, moisture-conditioned to no less than the optimum moisture content and recompacted to a minimum of 95 percent (90 percent for fine-grained cohesive soils) of the maximum dry density based on ASTM D1557 Test Method.

9.5.9 All Engineered Fill (including scarified ground surfaces and backfill) should be placed in thin lifts to allow for adequate bonding and compaction (typically 6 to 8 inches in loose thickness).

9.5.10 Engineered Fill soils should be placed, moisture conditioned to near optimum moisture content, and compacted to at least 95% (90% for fine-grained cohesive soils) relative compaction.

9.5.11 An integral part of satisfactory fill placement is the stability of the placed lift of soil. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and shall be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.5.12 Within pavement areas, it is recommended that scarification, moisture conditioning and recompaction be performed to at least 12 inches below existing grade or finish grade, whichever is deeper. In addition, the upper 12 inches of final pavement subgrade, whether completed at-grade, by excavation, or by filling, should be uniformly moisture-conditioned to no less than the optimum moisture content and compacted to at least 95% (90% for fine-grained cohesive soils) relative compaction.

9.5.13 Final pavement subgrade should be finished to a smooth, unyielding surface. We further recommend proof-rolling the subgrade with a loaded water truck (or similar equipment with high contact pressure) to verify the stability of the subgrade prior to placing aggregate base.

9.5.14 The most effective site preparation alternatives will depend on site conditions prior to grading. We should evaluate site conditions and provide supplemental recommendations immediately prior to grading, if necessary.

9.5.15 We do not anticipate groundwater or seepage to adversely affect construction if conducted during the drier moths of the year (typically summer and fall). However, groundwater and soil moisture conditions could be significantly different during the wet season (typically winter and spring) as surface soil becomes wet; perched groundwater conditions may develop. Grading during this time period will likely encounter wet materials resulting in possible excavation and fill placement difficulties. Project site winterization consisting of placement of aggregate base and protecting exposed soils during construction should be performed. If the construction schedule requires grading operations during the wet season, we can provide additional recommendations as conditions warrant.

9.5.16 The wet soils may become non conducive to site grading as the upper soils yield under the weight of the construction equipment. Therefore, mitigation measures should be performed for stabilization. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material or placement of crushed rocks or aggregate base material; or mixing the soil with an approved lime or cement product.

The most common remedial measure of stabilizing the bottom of the excavation due to wet soil condition is to reduce the moisture of the soil to near the optimum moisture content by having the subgrade soils scarified and aerated or mixed with drier soils prior to compacting. However, the drying process may require an extended period of time and delay the construction operation. To expedite the stabilizing process, crushed rock may be utilized for stabilization provided this method is approved by the owner for the cost purpose. If the use of crushed rock is considered,

it is recommended that the upper soft and wet soils be replaced by 6 to 24 inches of ¾-inch to 1-inch crushed rocks. The thickness of the rock layer depends on the severity of the soil instability. The recommended 6 to 24 inches of crushed rock material will provide a stable platform. It is further recommended that lighter compaction equipment be utilized for compacting the crushed rock. A layer of geofabric is recommended to be placed on top of the compacted crushed rock to minimize migration of soil particles into the voids of the crushed rock, resulting in soil movement. Although it is not required, the use of geogrid (e.g. Tensar BX 1100 or TX 140) below the crushed rock will enhance stability and reduce the required thickness of crushed rock necessary for stabilization. Our firm should be consulted prior to implementing remedial measures to provide appropriate recommendations.

9.6 Shallow Foundations

9.6.1 The site is suitable for use of conventional shallow foundations consisting of continuous footings and isolated pad footings bearing in properly compacted Engineered Fill.

9.6.2 The bearing wall footings considered for the structures should be continuous with a minimum width of 15 inches and extend to a minimum depth of 18 inches below the lowest adjacent grade. Isolated column footings should have a minimum width of 24 inches and extend a minimum depth of 18 inches below the lowest adjacent grade. The bottom of footing excavations should be maintained free of loose and disturbed soil. Footing concrete should be placed into a neat excavation.

9.6.3 For design purposes, total settlement due to static loading on the order of 1.0 inches may be assumed for shallow footings. Differential settlement due to static loading, along a 20-foot exterior wall footing or between adjoining column footings, should be ½ inch, producing an angular distortion of 0.002. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated. The footing excavations should not be allowed to dry out any time prior to pouring concrete.

9.6.4 Footings proportioned as recommended above may be designed for the maximum allowable soil bearing pressures shown in the table below.

Loading Condition	Allowable Bearing
Dead Load Only	2,500 psf
Dead-Plus-Live Load	3,000 psf
Total Load, Including Wind or Seismic Loads	4,000 psf

9.6.5 Resistance to lateral footing displacement can be computed using an allowable coefficient of friction factor of 0.38 acting between the base of foundations and the supporting native subgrade.

9.6.6 Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 350 pounds per cubic foot acting against the appropriate vertical native footing faces. The frictional and passive resistance of the soil may be combined without

reduction in determining the total lateral resistance. An increase of one-third is permitted when using the alternate load combination in Section 1605.3.2 of the 2012 IBC/2013 CBC that includes wind or earthquake loads.

9.6.7 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.

9.6.8 The foundation subgrade should be sprinkled as necessary to maintain a moist condition without significant shrinkage cracks as would be expected in any concrete placement. Prior to placing rebar reinforcement, foundation excavations should be evaluated by a representative of SALEM for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

9.7 Caisson Foundations

9.7.1 The caisson foundation should have a minimum depth of 8 feet below the lowest adjacent grade.

9.7.2 The caissons may be designed using an allowable sidewall friction of 300 psf. This value is for dead-plus-live loads. An allowable end bearing capacity of 5,000 psf may be used provided that the bottom of the caisson is cleaned with the use of a clean-out bucket or equivalent and inspected by our representative prior to placement of reinforcement and concrete. An increase of one-third is permitted when using the alternate load combination in Section 1605.3.2 that includes wind or earthquake loads.

9.7.3 Uplift loads can be resisted by caissons using an allowable sidewall friction of 200 psf of the surface area and the weight of the caisson.

9.7.4 The total settlement of the caisson footing is not expected to exceed 1 inch. Differential settlement should be less than ½ inch. Most of the settlement is expected to occur during construction as the loads are applied.

9.7.5 Lateral loads for caissons may be designed utilizing the Isolated Pole Formula and Specifications shown on Table 1804.2, Sections 1804.3.1 and 1808.2.2 of the California Building Code. The drilled caissons may be designed for a lateral capacity of 350 pounds per square foot per foot of depth below the lowest adjacent grade to a maximum of 5,250 psf. The lowest adjacent grade should all the ground surface within 5 feet of the caisson.

9.7.6 These values may be increased by one-third when using the alternative load combinations in Section 1605.3.2 of the IBC that include wind or earthquake loads. These values should not be doubled since the values given herein are higher than the tabular values shown on the Table 1804.2. The lateral loading criteria is based on the assumption that the load application is applied at the ground level and flexible cap connections applied.

9.7.7 Sandy soil were encountered at the site. Casing of the drilled caisson will be required if groundwater/seepage is encountered or the drilled hole has to be left open for an extended period of time.

9.8 Concrete Slabs-on-Grade

9.8.1 Slab thickness and reinforcement should be determined by the structural engineer based on the anticipated loading. We recommend that non-structural slabs-on-grade be at least 4 inches thick and underlain by six (6) inches of compacted granular aggregate subbase material compacted to at least 95% relative compaction.

9.8.2 Granular aggregate subbase material shall conform to ASTM D-2940, Latest Edition (Table 1, bases) with at least 95 percent passing a 1½-inch sieve and not more than 8% passing a No. 200 sieve to prevent capillary moisture rise.

9.8.3 We recommend reinforcing slabs, at a minimum, with No. 3 reinforcing bars placed 18 inches on center, each way.

9.8.4 Slabs subject to structural loading may be designed utilizing a modulus of subgrade reaction K of 150 pounds per square inch per inch. The K value was approximated based on inter-relationship of soil classification and bearing values (Portland Cement Association, Rocky Mountain Northwest).

9.8.5 The spacing of crack control joints should be designed by the project structural engineer. In order to regulate cracking of the slabs, we recommend that full depth construction joints or control joints be provided at a maximum spacing of 15 feet in each direction for 5-inch thick slabs and 12 feet for 4-inch thick slabs.

9.8.6 Crack control joints should extend a minimum depth of one-fourth the slab thickness and should be constructed using saw-cuts or other methods as soon as practical after concrete placement. The exterior floors should be poured separately in order to act independently of the walls and foundation system.

9.8.7 It is recommended that the utility trenches within the structures be compacted, as specified in our report, to minimize the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the structures is recommended.

9.8.8 Moisture within the structures may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structures. To minimize moisture vapor intrusion, it is recommended that a vapor retarder be installed in accordance with manufacturer's recommendations and/or ASTM guidelines, whichever is more stringent. In addition, ventilation of the structures is recommended to reduce the accumulation of interior moisture.

9.8.9 In areas where it is desired to reduce floor dampness where moisture-sensitive coverings are anticipated, construction should have a suitable waterproof vapor retarder (a minimum of 15 mils thick polyethylene vapor retarder sheeting, Raven Industries "VaporBlock 15, Stego Industries

15 mil "StegoWrap" or W.R. Meadows Sealtight 15 mil "Perminator") incorporated into the floor slab design. The water vapor retarder should be decay resistant material complying with ASTM E96 not exceeding 0.04 perms, ASTM E154 and ASTM E1745 Class A. The vapor barrier should be placed between the concrete slab and the compacted granular aggregate subbase material. The water vapor retarder (vapor barrier) should be installed in accordance with ASTM Specification E 1643-94.

9.8.10 The concrete maybe placed directly on vapor retarder. The vapor retarder should be inspected prior to concrete placement. Cut or punctured retarder should be repaired using vapor retarder material lapped 6 inches beyond damaged areas and taped.

9.8.11 The recommendations of this report are intended to reduce the potential for cracking of slabs due to soil movement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to soil movement. This is common for project areas that contain expansive soils since designing to eliminate potential soil movement is cost prohibitive. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

9.8.12 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.9 Lateral Earth Pressures and Frictional Resistance

9.9.1 Active, at-rest and passive unit lateral earth pressures against footings and walls are summarized in the table below:

Lateral Pressure Conditions	Equivalent Fluid Pressure, pcf
Active Pressure, Drained	40
At-Rest Pressure, Drained	60
Passive Pressure	350
Related Parameters	
Allowable Coefficient of Friction	0.38
In-Place Soil Density (lbs/ft^3)	120

9.9.2 Active pressure applies to walls, which are free to rotate. At-rest pressure applies to walls, which are restrained against rotation. The preceding lateral earth pressures assume sufficient drainage

behind retaining walls to prevent the build-up of hydrostatic pressure. The top one-foot of adjacent subgrade should be deleted from the passive pressure computation.

9.9.3 The foregoing values of lateral earth pressures represent allowable equivalent soil values and a safety factor consistent with the design conditions should be included in their usage.

9.9.4 For stability against lateral sliding, which is resisted solely by the passive pressure, we recommend a minimum safety factor of 1.5.

9.9.5 For stability against lateral sliding, which is resisted by the combined passive and frictional resistance, a minimum safety factor of 2.0 is recommended.

9.9.6 For lateral stability against seismic loading conditions, we recommend a minimum safety factor of 1.1.

9.9.7 For dynamic seismic lateral loading the following equation shall be used:

Dynamic Seismic Lateral Loading Equation
Dynamic Seismic Lateral Load = $\frac{3}{8}\gamma K_h H^2$
Where: γ = In-Place Soil Density
K_h = Horizontal Acceleration = $\frac{2}{3}PGA_M$
H = Wall Height

9.10 Retaining Walls

9.10.1 Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic-concrete or other suitable backfill to minimize surface drainage into the wall drain system. The gravel should conform to Class II permeable materials graded in accordance with the current CalTrans Standard Specifications.

9.10.2 Prefabricated drainage systems, such as Miradrain®, Enkadrain®, or an equivalent substitute, are acceptable alternatives in lieu of gravel provided they are installed in accordance with the manufacturer's recommendations. If a prefabricated drainage system is proposed, our firm should review the system for final acceptance prior to installation.

9.10.3 Drainage pipes should be placed with perforations down and should discharge in a non-erosive manner away from foundations and other improvements. The top of the perforated pipe should be placed at or below the bottom of the adjacent floor slab or pavements. The pipe should be placed in the center line of the drainage blanket and should have a minimum diameter of 4 inches. Slots should be no wider than 1/8-inch in diameter, while perforations should be no more than ¼-inch in diameter.

9.10.4 If retaining walls are less than 5 feet in height, the perforated pipe may be omitted in lieu of weep holes on 4 feet maximum spacing. The weep holes should consist of 2-inch minimum diameter holes (concrete walls) or unmortared head joints (masonry walls) and placed no higher than 18 inches above the lowest adjacent grade. Two 8-inch square overlapping patches of geotextile fabric (conforming to the CalTrans Standard Specifications for "edge drains") should be affixed to the rear wall opening of each weep hole to retard soil piping.

9.10.5 During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

9.11 Temporary Excavations

9.11.1 We anticipate that the majority of the sandy site soils will be classified as Cal-OSHA “Type C” soil when encountered in excavations during site development and construction. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved “competent person” onsite during excavation to evaluate trench conditions and make appropriate recommendations where necessary.

9.11.2 It is the contractor’s responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements. All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load.

9.11.3 Temporary excavations and slope faces should be protected from rainfall and erosion. Surface runoff should be directed away from excavations and slopes.

9.11.4 Open, unbraced excavations in undisturbed soils should be made according to the slopes presented in the following table:

RECOMMENDED EXCAVATION SLOPES

Depth of Excavation (ft)	Slope (Horizontal : Vertical)
0-5	1:1
5-10	2:1

9.11.5 If, due to space limitation, excavations near property lines or existing structures are performed in a vertical position, slot cuts, braced shorings or shields may be used for supporting vertical excavations. Therefore, in order to comply with the local and state safety regulations, a properly designed and installed shoring system would be required to accomplish planned excavations and

installation. A Specialty Shoring Contractor should be responsible for the design and installation of such a shoring system during construction.

9.11.6 Braced shorings should be designed for a maximum pressure distribution of 35H, (where H is the depth of the excavation in feet). The foregoing does not include excess hydrostatic pressure or surcharge loading. Fifty percent of any surcharge load, such as construction equipment weight, should be added to the lateral load given herein. Equipment traffic should concurrently be limited to an area at least 3 feet from the shoring face or edge of the slope.

9.11.7 The excavation and shoring recommendations provided herein are based on soil characteristics derived from the borings within the area. Variations in soil conditions will likely be encountered during the excavations. SALEM Engineering Group, Inc. should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation. Slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulation, (e.g. OSHA) standards for excavations, 29 CFR part 1926, or Assessor's regulations.

9.12 Underground Utilities

9.12.1 Underground utility trenches should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than 3 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches and compacted to at least 95% (90% for fine-grained cohesive soils) relative compaction at or above optimum moisture content.

9.12.2 Bedding and pipe zone backfill typically extends from the bottom of the trench excavations to approximately 6 to 12 inches above the crown of the pipe. Pipe bedding and backfill material should conform to the requirements of the governing utility agency.

9.12.3 It is suggested that underground utilities crossing beneath new or existing structures be plugged at entry and exit locations to the building or structures to prevent water migration. Trench plugs can consist of on-site clay soils, if available, or sand cement slurry. The trench plugs should extend 2 feet beyond each side of individual perimeter foundations.

9.12.4 The contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

9.13 Surface Drainage

9.13.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear

strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.

9.13.2 Site drainage should be collected and transferred away from improvements in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundations or retaining walls. Drainage should not be allowed to flow uncontrolled over any descending slope. The proposed structures should be provided with roof gutters. Discharge from downspouts, roof drains and scuppers are not permitted onto unprotected soils within five feet of the building perimeters. Planters which are located adjacent to foundations should be sealed or properly drained to prevent moisture intrusion into the materials providing foundation support. Landscape irrigation within 5 feet of the building perimeter footings should be kept to a minimum to just support vegetative life.

9.13.3 The ground immediately adjacent to the foundation shall be sloped away from building at a slope of not less than 5 percent for a minimum distance of 10 feet. Impervious surfaces within 10 feet of building's foundations shall be sloped a minimum of 2 percent away from building and drainage gradients maintained to carry all surface water to collection facilities and off site. These grades should be maintained for the life of the project.

9.14 Pavement Design

9.14.1 Based on site soil conditions, an R-value of 30 was used for the preliminary flexible asphaltic concrete pavement design. The R-value may be verified during grading of the pavement areas.

9.14.2 The pavement design recommendations provided herein are based on the State of California Department of Transportation (CALTRANS) design manual. The asphaltic concrete (flexible pavement) is based on a 20-year pavement life utilizing 1200 passenger vehicles, 10 single unit trucks, and 2 multi-unit trucks. The following table shows the recommended pavement sections for various traffic indices.

TABLE 9.14.2
ASPHALT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Asphaltic Concrete	Class II Aggregate Base*	Compacted Subgrade**
5.0 (Parking and Vehicle Drive Areas)	3.0"	5.0"	12.0"
6.0 (Heavy Truck Areas)	3.0"	8.5"	12.0"

95% compaction based on ASTM D1557 Test Method
95% (90% for fined-grained cohesive soils) compaction based on ASTM D1557 Test Method

9.14.3 The following recommendations are for light-duty and heavy-duty Portland Cement Concrete pavement sections.

TABLE 9.14.3
PORTLAND CEMENT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Portland Cement Concrete*	Class II Aggregate Base**	Compacted Subgrade***
5.0 (Light Duty)	5.0"	4.0"	12.0"
6.0 (Heavy Duty)	6.5"	6.0"	12.0"

**** Minimum Compressive Strength of 4,000 psi***
***** 95% compaction based on ASTM D1557 Test Method***
******95% (90% for fine-grained cohesive soils) compaction based on ASTM D1557 Test Method***

10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING

10.1 Plan and Specification Review

10.1.1 SALEM should review the project plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

10.2 Construction Observation and Testing Services

10.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

10.2.2 SALEM should be present at the site during site preparation to observe site clearing, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill material.

10.2.3 SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. Moisture content of footings and slab subgrade should be tested immediately prior to concrete placement. SALEM should observe foundation excavations prior to placement of reinforcing steel or concrete to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report.

11. LIMITATIONS AND CHANGED CONDITIONS

The analyses and recommendations submitted in this report are based upon the data obtained from the test borings drilled at the approximate locations shown on the Site Plan, Figure 1. The report does not reflect variations which may occur between borings. The nature and extent of such variations may not become evident until construction is initiated.

If variations then appear, a re-evaluation of the recommendations of this report will be necessary after performing on-site observations during the excavation period and noting the characteristics of such variations. The findings and recommendations presented in this report are valid as of the present and for the proposed construction. If site conditions change due to natural processes or human intervention on the property or adjacent to the site, or changes occur in the nature or design of the project, or if there is a substantial time lapse between the submission of this report and the start of the work at the site, the conclusions and recommendations contained in our report will not be considered valid unless the changes are reviewed by SALEM and the conclusions of our report are modified or verified in writing.

The validity of the recommendations contained in this report is also dependent upon an adequate testing and observations program during the construction phase. Our firm assumes no responsibility for construction compliance with the design concepts or recommendations unless we have been retained to perform the on-site testing and review during construction. SALEM has prepared this report for the exclusive use of the owner and project design consultants.

SALEM does not practice in the field of corrosion engineering. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, that manufacturer's recommendations for corrosion protection be closely followed. Further, a corrosion engineer may be needed to incorporate the necessary precautions to avoid premature corrosion of concrete slabs and foundations in direct contact with native soil.

The importation of soil and or aggregate materials to the site should be screened to determine the potential for corrosion to concrete and buried metal piping. The report has been prepared in accordance with generally accepted geotechnical engineering practices in the area. No other warranties, either express or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Ibrahim Ibrahim, MS, EIT
Geotechnical Staff Engineer

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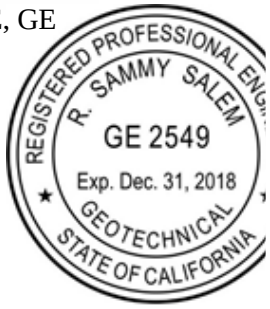
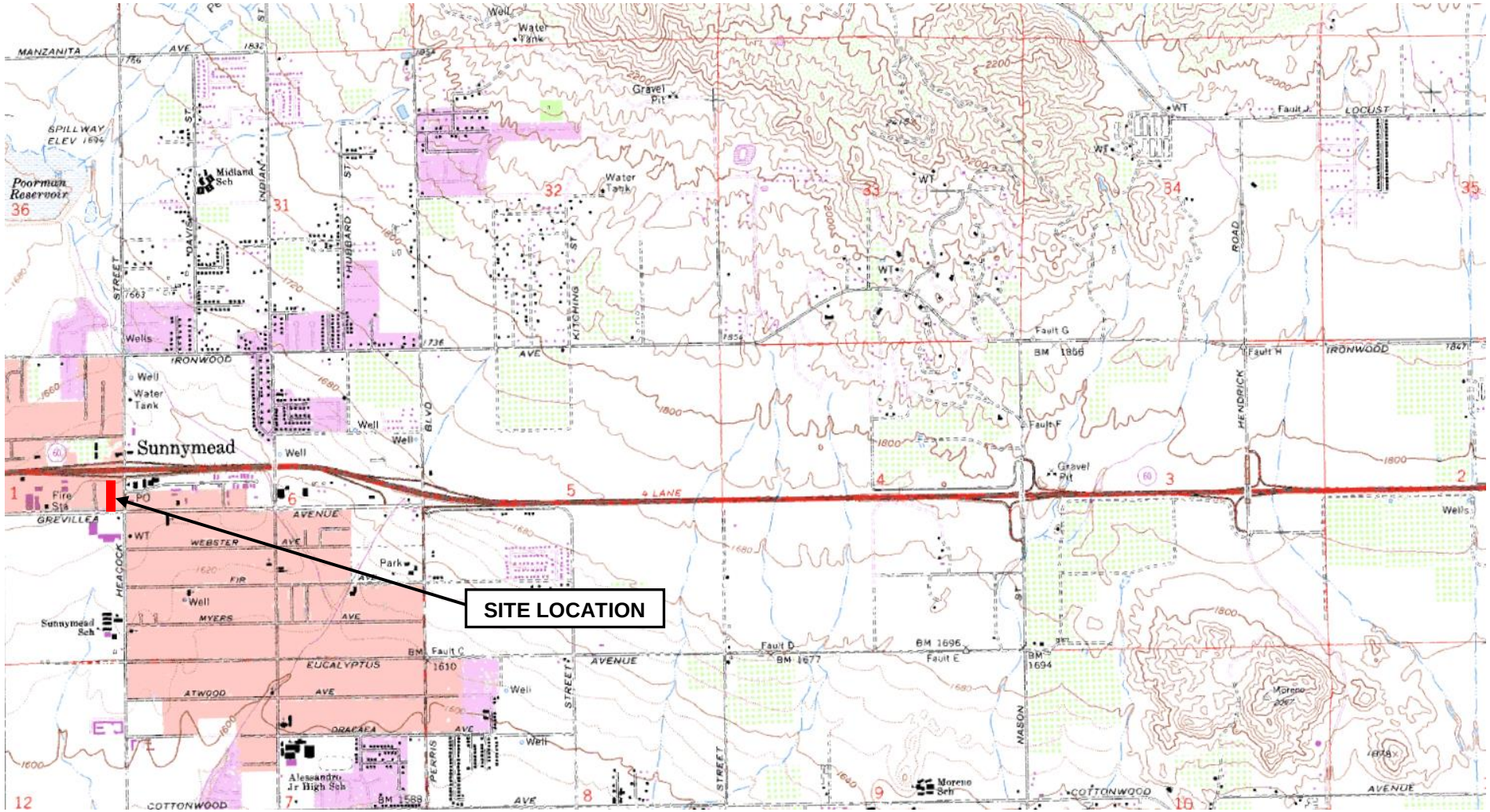




Source Image: U.S. Geological Survey, Sunnymead, Calif. 3117-H-2-TF-024, 1967 (Photorevised 1980)

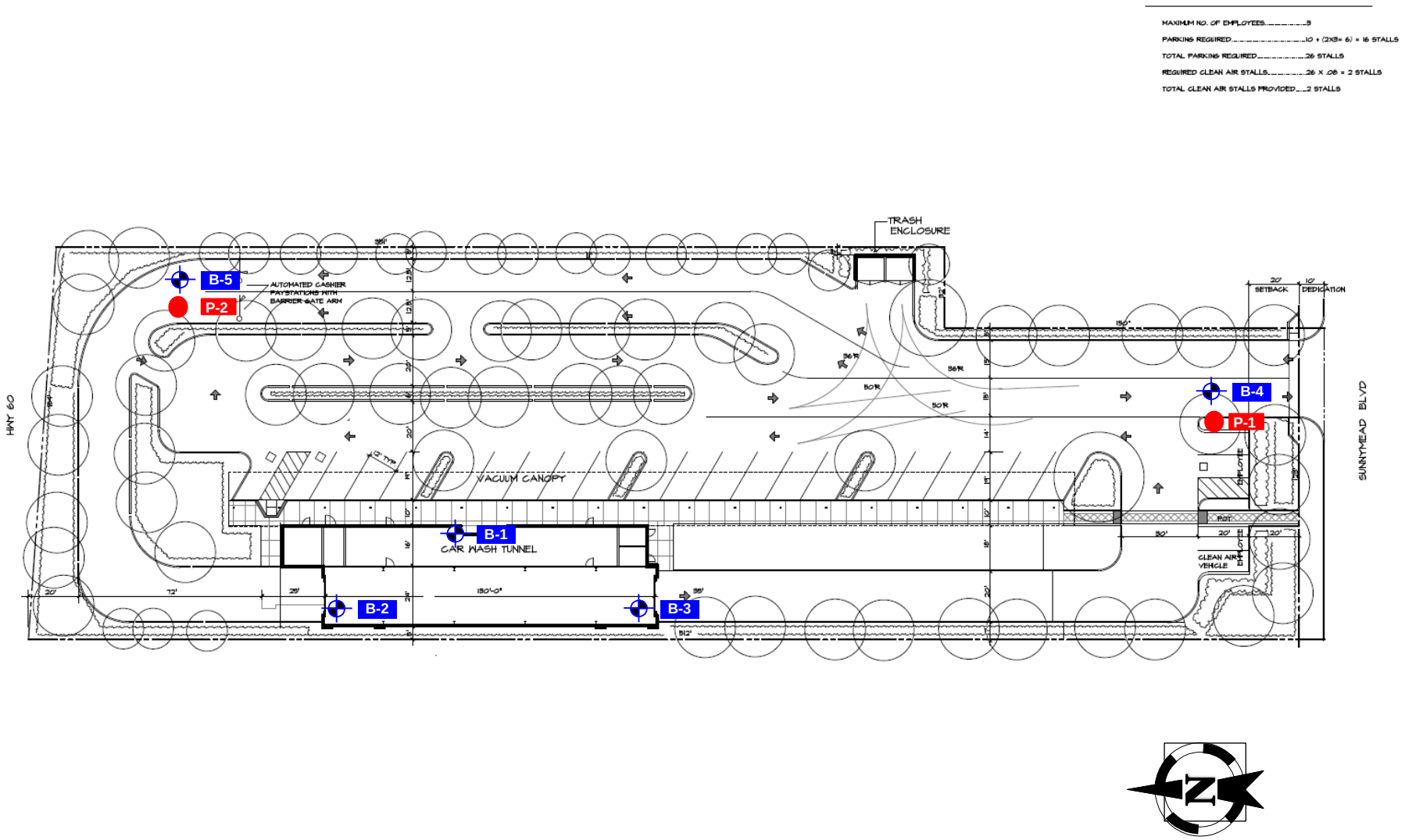
VICINITY MAP

PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION
Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, California

SCALE:	DATE:
NOT TO SCALE	10/2016
DRAWN BY:	APPROVED BY:
II	CJ
PROJECT NO.	FIGURE NO.
3-216-1097	1

SALEM engineering group, inc.

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)



SITE PLAN

PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION
Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, California

SCALE:	DATE:
NOT TO SCALE	10/2016
DRAWN BY:	APPROVED BY:
II	CJ
PROJECT NO.	FIGURE NO.
3-216-1097	2

LEGEND:

B-1 Soil Boring Locations

P-1 Perc Test Locations

All Locations Approximate

SALEM engineering group, inc.

APPENDIX

A

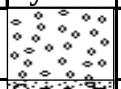
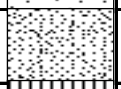
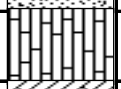
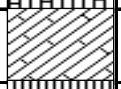
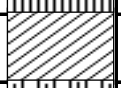
APPENDIX A
FIELD EXPLORATION

Fieldwork for our investigation (drilling) was conducted on October 10, 2016 and included a site visit, subsurface exploration, and soil sampling. Percolation tests were performed on October 11, 2016. The locations of the exploratory borings and percolation tests are shown on the Site Plan, Figure 2. Boring logs for our exploration are presented in figures following the text in this appendix. Borings were located in the field using existing reference points. Therefore, actual boring locations may deviate slightly.

In general, our borings were performed using a truck-mounted CME 45C drill rig equipped with an 8-inch dimeter hollow-stem augers and a 4-inch solid flight auger. Sampling in the borings was accomplished using a hydraulic 140-pound hammer with a 30-inch drop. Samples were obtained with a 3-inch outside-diameter (OD), split spoon (California Modified) sampler, and a 2-inch OD, Standard Penetration Test (SPT) sampler. The number of blows required to drive the sampler the last 12 inches (or fraction thereof) of the 18-inch sampling interval were recorded on the boring logs. The blow counts shown on the boring logs should not be interpreted as standard SPT "N" values; corrections have not been applied. Upon completion, the borings were backfilled with drill cuttings.

Subsurface conditions encountered in the exploratory borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, drill rig penetration rates, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

Unified Soil Classification System

Major Divisions			Letter	Symbol	Description
Coarse-grained Soils More than ½ retained on the No. 200 Sieve	**Gravels** More than ½ coarse fraction retained on the No. 4 sieve	Clean Gravels	GW		Well-graded gravels and gravel-sand mixtures, little or no fines.
			GP		Poorly-graded gravels and gravel-sand mixtures, little or no fines.
		Gravels With Fines	GM		Silty gravels, gravel-sand-silt mixtures.
			GC		Clayey gravels, gravel-sand-clay mixtures.
	Sands More than ½ passing through the No. 4 sieve	Clean Sands	SW		Well-graded sands and gravelly sands, little or no fines.
			SP		Poorly-graded sands and gravelly sands, little or no fines.
		Sands With Fines	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sandy-clay mixtures.
Fine-grained Soils More than ½ passing through the No. 200 Sieve	**Silts and Clays** Liquid Limit less than 50%		ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL		Organic clays of medium to high plasticity.
	Silts and Clays Liquid Limit greater than 50%		MH		Inorganic silts, micaceous or diatomaceous fines sands or silts, elastic silts.
			CH		Inorganic clays of high plasticity, fat clays.
			OH		Organic clays of medium to high plasticity.
Highly Organic Soils			PT		Peat, muck, and other highly organic soils.

Consistency Classification

Granular Soils			***Cohesive Soils***		
Description - Blows Per Foot (Corrected)			Description - Blows Per Foot (Corrected)		
	MCS	SPT		MCS	SPT
Very loose	<5	<4	Very soft	<3	<2
Loose	5 - 15	4 - 10	Soft	3 - 5	2 - 4
Medium dense	16 - 40	11 - 30	Firm	6 - 10	5 - 8
Dense	41 - 65	31 - 50	Stiff	11 - 20	9 - 15
Very dense	>65	>50	Very Stiff	21 - 40	16 - 30
			Hard	>40	>30

MCS = Modified California Sampler

SPT = Standard Penetration Test Sampler

Boring No. B-1

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A
Depth to Water>

Project No: 3-216-1097
Figure No.: A-1
Logged By: SMG
Initial: None
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
0		Ground Surface					
		Silty SAND (SM) Dense; slightly moist; brown; fine-medium grained; with trace clay.	116.5	3.3	MCS		57
5		Grades as above; very dense; moist.	112.7	8.1	MCS		60
10		Grades as above; medium dense; slightly moist.	-	4.3	SPT		23
15		Grades as above; dense; moist.	-	7.8	SPT		37
		Silty SAND/Sandy SILT (SM/ML) Dense; moist; brown; fine-medium grained; with trace clay.	-	10.9	SPT		37
20							
25		Grades as above; medium dense.	-	9.7	SPT		24

Penetration Test: 20 40 60 80

Water Level

Drill Method: Hollow Stem Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 2

Drill Date: 10/10/16
Borehole Size: 8 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)

Boring No. B-1

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-1
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
30		**Sandy SILT (ML)** Stiff; moist; brown; fine-medium grained; with clay.	-	12.8	SPT		14
35		Grades as above; hard.	-	9.0	SPT		43
		Auger refusal at 36 feet due to dense soils.					
40							
45							
50							

Penetration Test: 20 40 60 80

Water Level

Drill Method: Hollow Stem Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 2 of 2

Drill Date: 10/10/16
Borehole Size: 8 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)

Boring No. B-2

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-2
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
0		Ground Surface					
		Silty SAND (SM) Dense; slightly moist; brown; fine-medium grained; with trace clay.	108.7	3.8	MCS		52
5		**Silty SAND/Sandy SILT (SM/ML)** Very dense; moist; brown; fine-medium grained; with trace clay.	109.7	7.7	MCS		50
		Silty SAND (SM) Medium dense; moist; brown; fine-medium grained; with clay.	-	11.3	SPT		20
15		Grades as above; dense.	-	9.2	SPT		43
		Grades as above.					
20		End of Borehole					
25							

Penetration Test: 20 40 60 80

Water Level

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)

Boring No. B-3

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-3
Logged By: SMG
Initial: None
At Completion: None
Depth to Water>

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
0		Ground Surface							
		Silty SAND (SM) Medium dense; slightly moist; brown; fine-medium grained; with trace clay.	104.1	4.7	MCS		36		
5		Grades as above; dense.	105.8	3.6	MCS		54		
10		Grades as above; medium dense.	-	6.9	SPT		19		
15		Grades as above; very dense.	-	6.1	SPT		51		
20		Grades as above.							
		End of Borehole							
25									

Drill Method: Soild Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)

Boring No. B-4

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-4
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
0		Ground Surface							
		Silty SAND/Sandy SILT (SM/ML) Dense; slightly moist; brown; fine-medium grained; with trace clay.	106.0	4.3	MCS		43		
5		Grades as above; medium dense; fine grained.	115.7	10.7	MCS		40		
10		Grades as above.							
		End of Borehole							
15									
20									
25									

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-5

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-5
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
0		Ground Surface							
		Silty SAND (SM) Medium dense; slightly moist; brown; fine-coarse grained; with trace clay.	105.2	4.5	MCS		25		
5		Grades as above; dense.	105.0	3.9	MCS		43		
10		Grades as above. End of Borehole							
15									
20									
25									

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Attachment: Geotechnical Investigation (2913 : PEN16-0113 Plot Plan)

Percolation Test Worksheet

Project: Proposed Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, CA

Job No.: 3-216-1097
Date Drilled: 10/10/2016
Soil Classification: Silty Sand/Sandy Silt w/ clay

Hole Radius: 4 in.
Pipe Dia.: 3 in.
Totoal Depth of Hole: 120 in.

Test Hole No.: P-1
Tested by: SK
Drilled Hole Depth: 10 ft.

Presoaking Date: 10/10/2016
Test Date: 10/11/2016

Time Start	Time Finish	Depth of Test Hole (ft)#	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Meas. Perc Rate (min/in)	Initial Height of Water (in)	Final Height of Water (in)	Average Height of Water (in)	Infiltration Rate, It (in/hr)
10:10	10:40	10.0	Y	0:30	6.75	6.94	2.28	30	13.2	39.0	36.7	37.9	0.23
10:40	11:10	10.0	N	0:30	6.94	7.09	1.80	30	16.7	36.7	34.9	35.8	0.19
11:10	11:40	10.0	N	0:30	7.09	7.23	1.68	30	17.9	34.9	33.2	34.1	0.19
11:40	12:10	10.0	N	0:30	7.23	7.36	1.56	30	19.2	33.2	31.7	32.5	0.18
12:10	12:40	10.0	N	0:30	7.36	7.48	1.44	30	20.8	31.7	30.2	31.0	0.17
12:40	13:10	10.0	N	0:30	7.48	7.59	1.32	30	22.7	30.2	28.9	29.6	0.17
13:10	13:40	10.0	N	0:30	7.59	7.69	1.20	30	25.0	28.9	27.7	28.3	0.16
13:40	14:10	10.0	N	0:30	7.69	7.78	1.08	30	27.8	27.7	26.6	27.2	0.15
14:10	14:40	10.0	N	0:30	7.78	7.87	1.08	30	27.8	26.6	25.6	26.1	0.15
14:40	15:10	10.0	N	0:30	7.87	7.95	0.96	30	31.3	25.6	24.6	25.1	0.14
15:10	15:40	10.0	N	0:30	7.95	8.03	0.96	30	31.3	24.6	23.6	24.1	0.15
15:40	16:10	10.0	N	0:30	8.03	8.11	0.96	30	31.3	23.6	22.7	23.2	0.15
Recommended for Design:										**Infiltration Rate**			**0.14**

SALEM engineering group, Inc.

Percolation Test Worksheet

Project: Proposed Water Drop Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, CA

Job No.: 3-216-1097
Date Drilled: 10/10/2016
Soil Classification: Silty Sand with clay

Hole Radius: 4 in.
Pipe Dia.: 3 in.
Totoal Depth of Hole: 240 in.

Test Hole No.: P-2
Tested by: SK
Drilled Hole Depth: 20 ft.

Presoaking Date: 10/10/2016
Test Date: 10/11/2016

Time Start	Time Finish	Depth of Test Hole (ft)#	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Meas. Perc Rate (min/in)	Initial Height of Water (in)	Final Height of Water (in)	Average Height of Water (in)	Infiltration Rate, It (in/hr)
10:00	10:30	20.0	Y	0:30	16.10	16.40	3.60	30	8.3	46.8	43.2	45.0	0.31
10:30	11:00	20.0	N	0:30	16.40	16.64	2.88	30	10.4	43.2	40.3	41.8	0.26
11:00	11:30	20.0	N	0:30	16.64	16.85	2.52	30	11.9	40.3	37.8	39.1	0.25
11:30	12:00	20.0	N	0:30	16.85	17.04	2.28	30	13.2	37.8	35.5	36.7	0.24
12:00	12:30	20.0	N	0:30	17.04	17.22	2.16	30	13.9	35.5	33.4	34.4	0.24
12:30	13:00	20.0	N	0:30	17.22	17.40	2.16	30	13.9	33.4	31.2	32.3	0.25
13:00	13:30	20.0	N	0:30	17.40	17.57	2.04	30	14.7	31.2	29.2	30.2	0.25
13:30	14:00	20.0	N	0:30	17.57	17.73	1.92	30	15.6	29.2	27.2	28.2	0.25
14:00	14:30	20.0	N	0:30	17.73	17.88	1.80	30	16.7	27.2	25.4	26.3	0.25
14:30	15:00	20.0	N	0:30	17.88	18.02	1.68	30	17.9	25.4	23.8	24.6	0.25
15:00	15:30	20.0	N	0:30	18.02	18.15	1.56	30	19.2	23.8	22.2	23.0	0.25
15:30	16:00	20.0	N	0:30	18.15	18.27	1.44	30	20.8	22.2	20.8	21.5	0.25
Recommended for Design:										**Infiltration Rate**			**0.24**

SALEM engineering group, Inc.

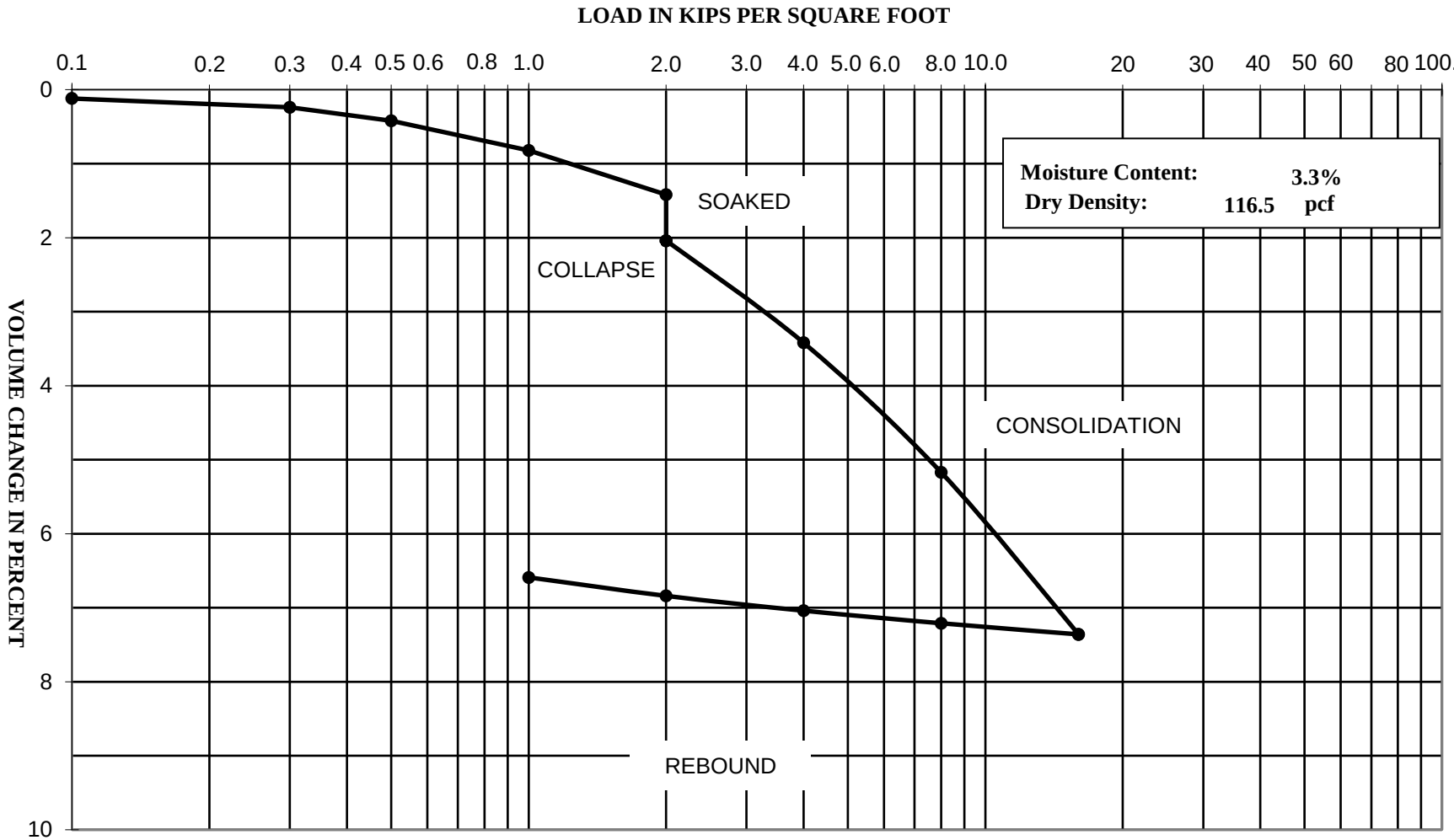
APPENDIX

B

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM), Caltrans, or other suggested procedures. Selected samples were tested for in-situ dry density and moisture content, corrosivity, consolidation, shear strength, expansion index, maximum density and optimum moisture content, and grain size distribution. The results of the laboratory tests are summarized in the following figures.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D 2435



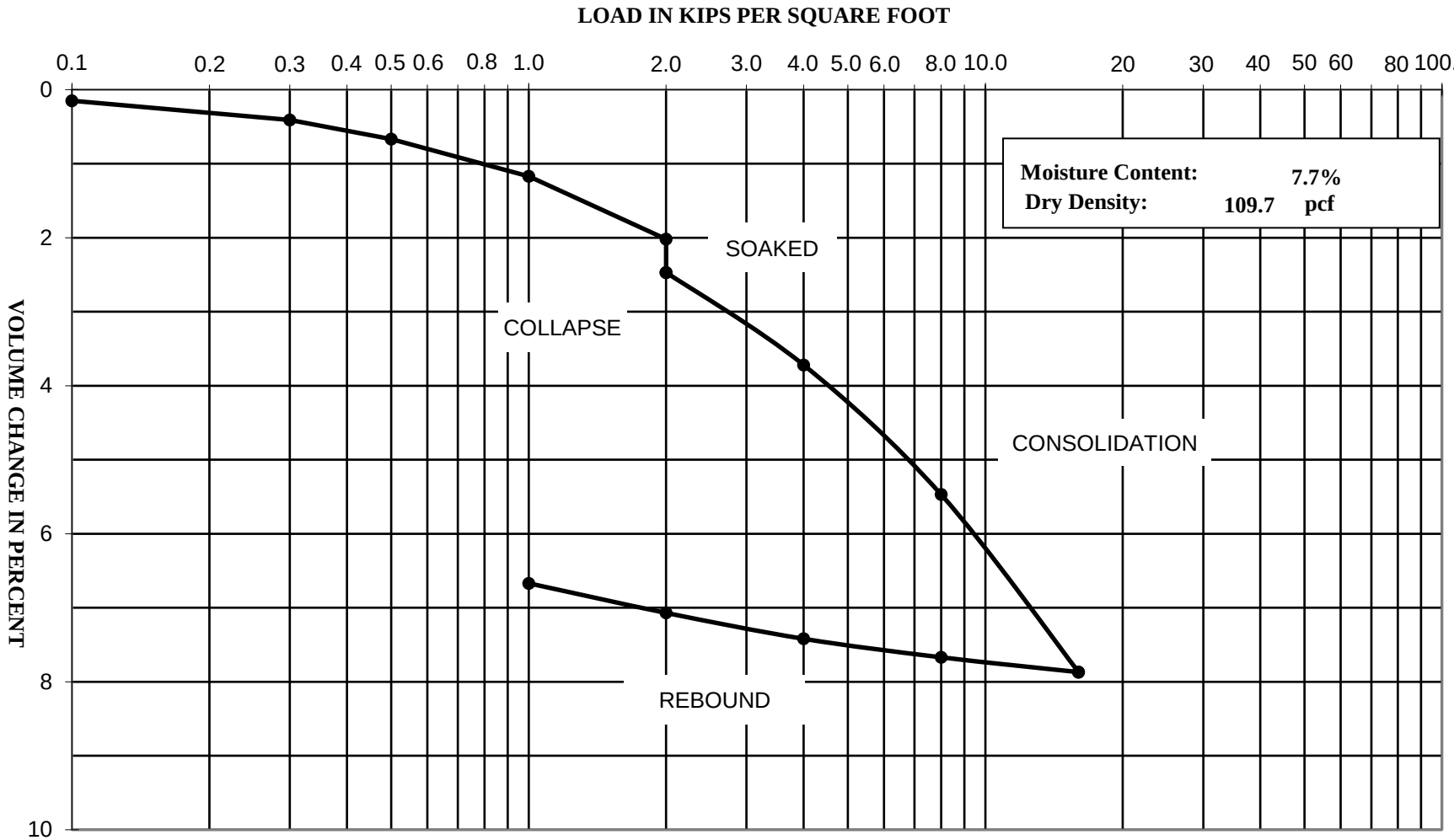
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 2'

SALEM engineering group, inc.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D 2435



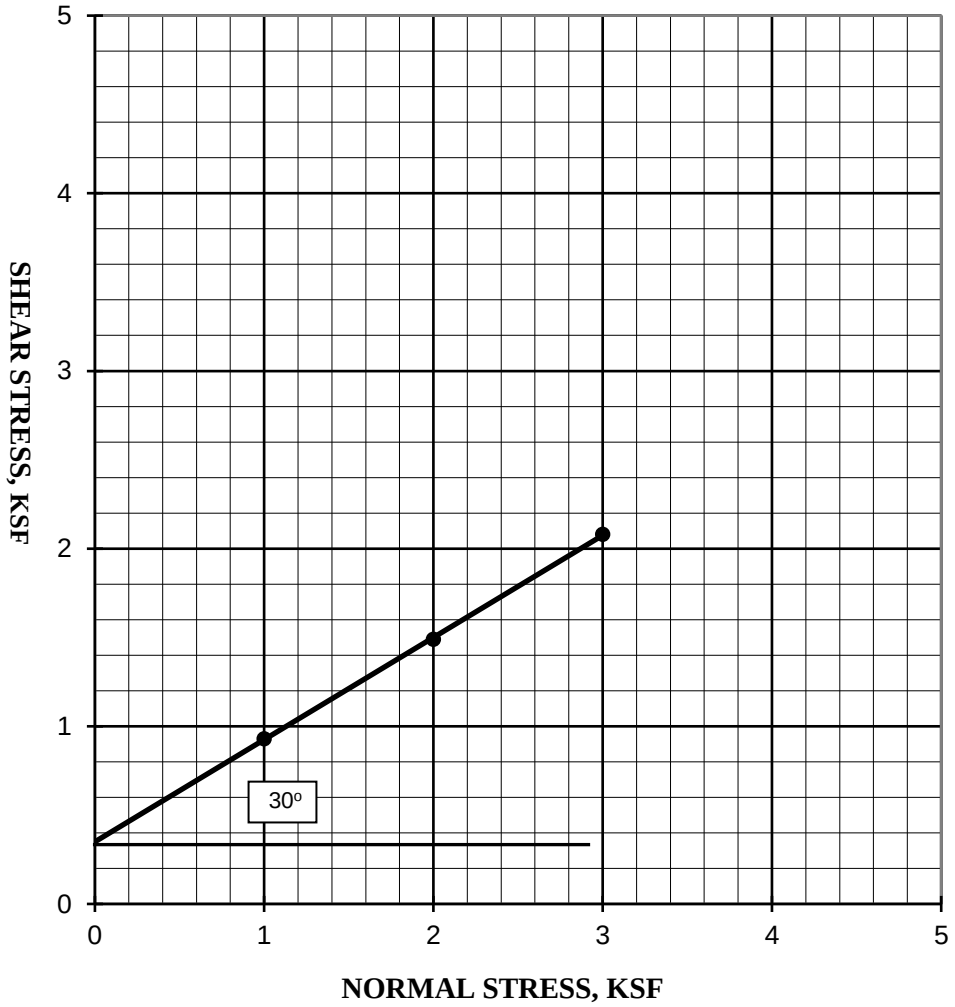
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 5'

SALEM engineering group, inc.

SHEAR STRENGTH DIAGRAM
(DIRECT SHEAR)
ASTM D - 3080



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

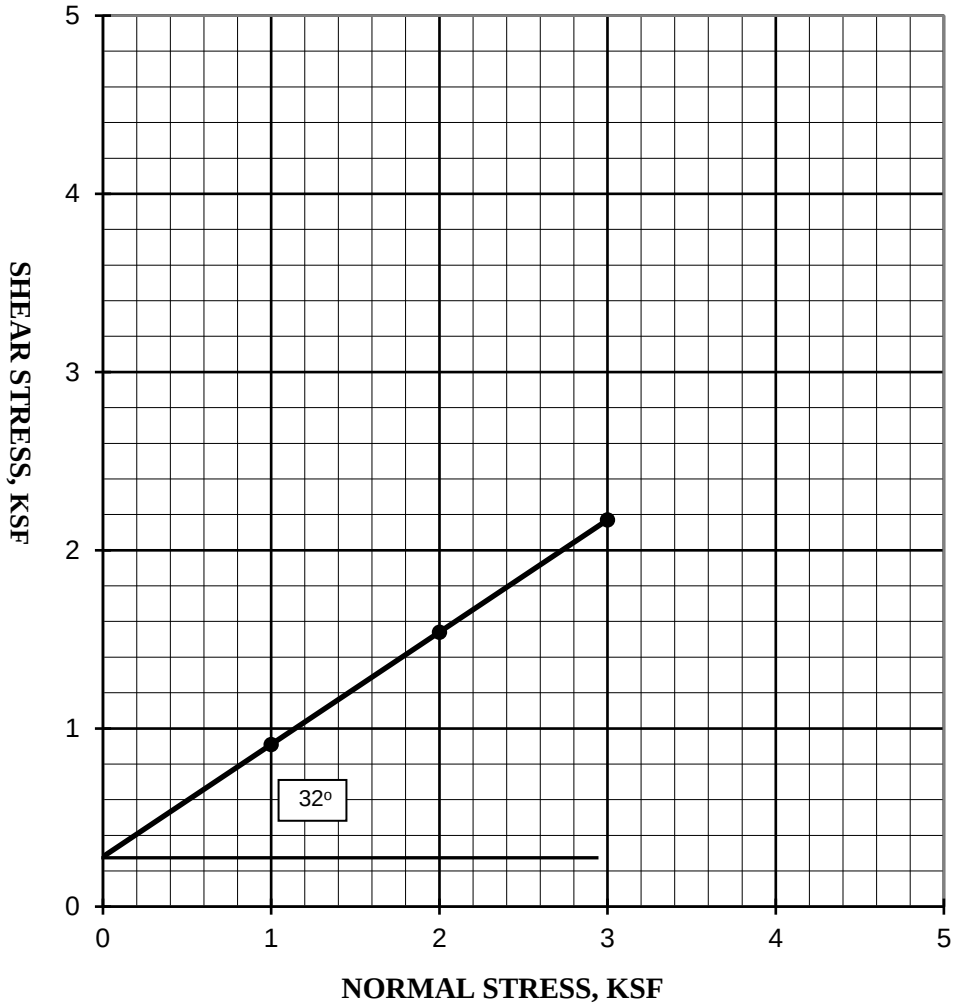
Boring: B-1 @ 5'
Soil Type:

Friction Angle:	**30**	**degrees**
Cohesion:	**350**	**psf**

Moisture Content	**8.1%**
Dry Density	**112.7 pcf**

SALEM engineering group, inc.

SHEAR STRENGTH DIAGRAM
(DIRECT SHEAR)
ASTM D - 3080



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 2'
Soil Type:

Friction Angle: 32 degrees
Cohesion: 280 psf

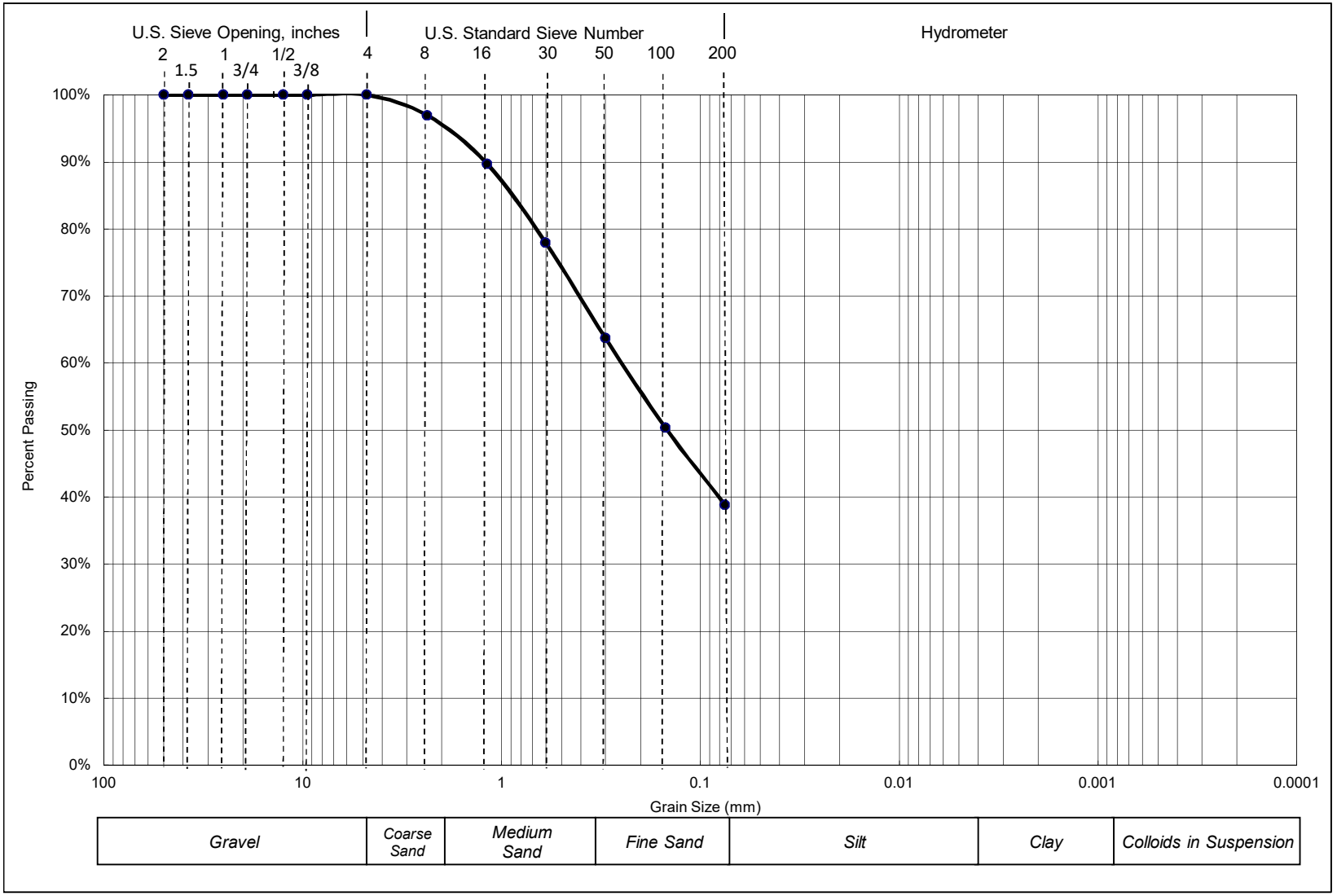
Moisture Content 3.8%

Dry Density 108.7 pcf

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 2'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

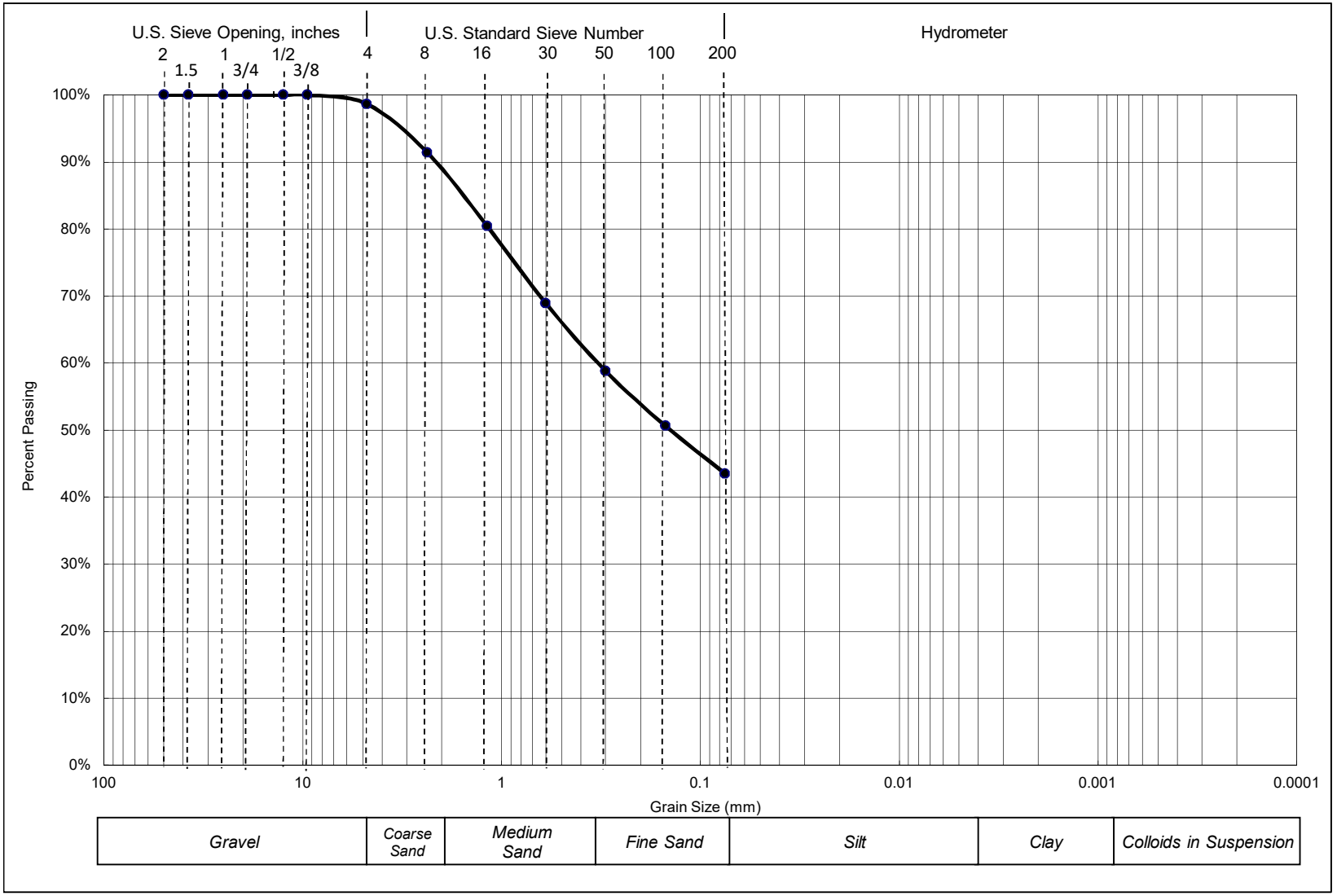
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	100.0%
No. 8	2.36	97.0%
No. 16	1.18	89.7%
No. 30	0.6	78.0%
No. 50	0.3	63.7%
No. 100	0.15	50.3%
No. 200	0.075	38.85%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 5'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

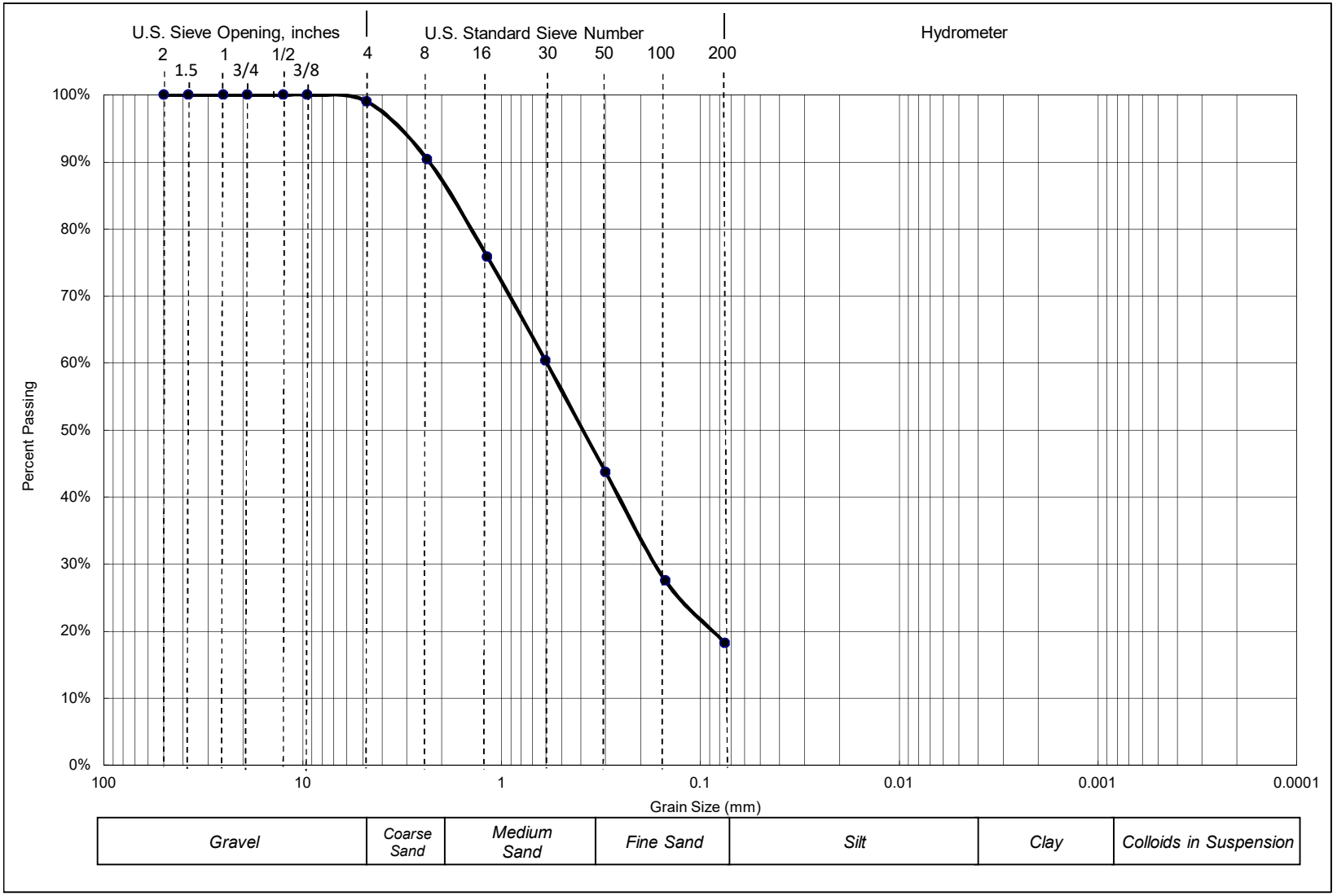
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	98.6%
No. 8	2.36	91.4%
No. 16	1.18	80.4%
No. 30	0.6	68.9%
No. 50	0.3	58.8%
No. 100	0.15	50.6%
No. 200	0.075	43.49%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 10'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

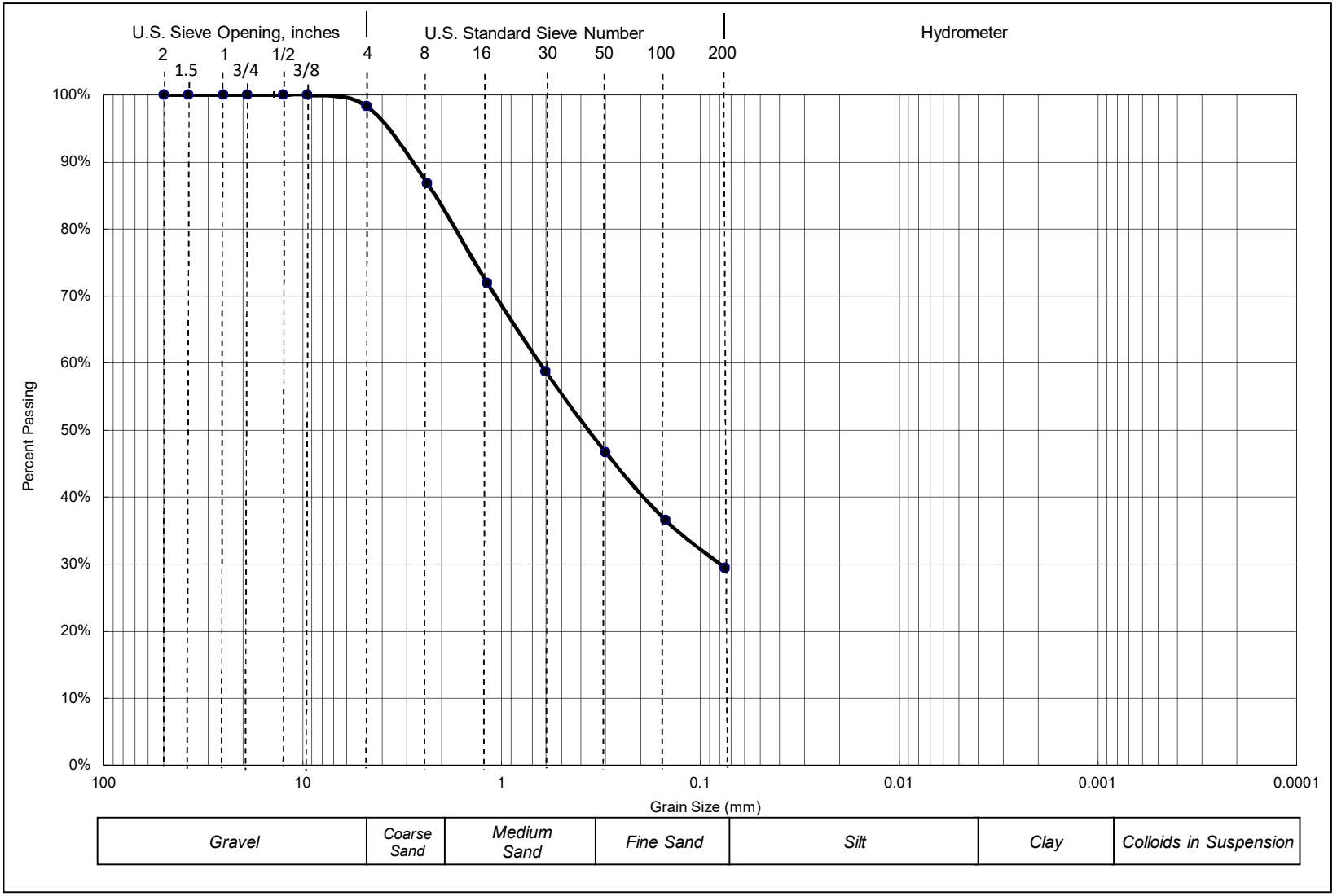
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.0%
No. 8	2.36	90.3%
No. 16	1.18	75.9%
No. 30	0.6	60.3%
No. 50	0.3	43.7%
No. 100	0.15	27.5%
No. 200	0.075	18.19%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 15'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

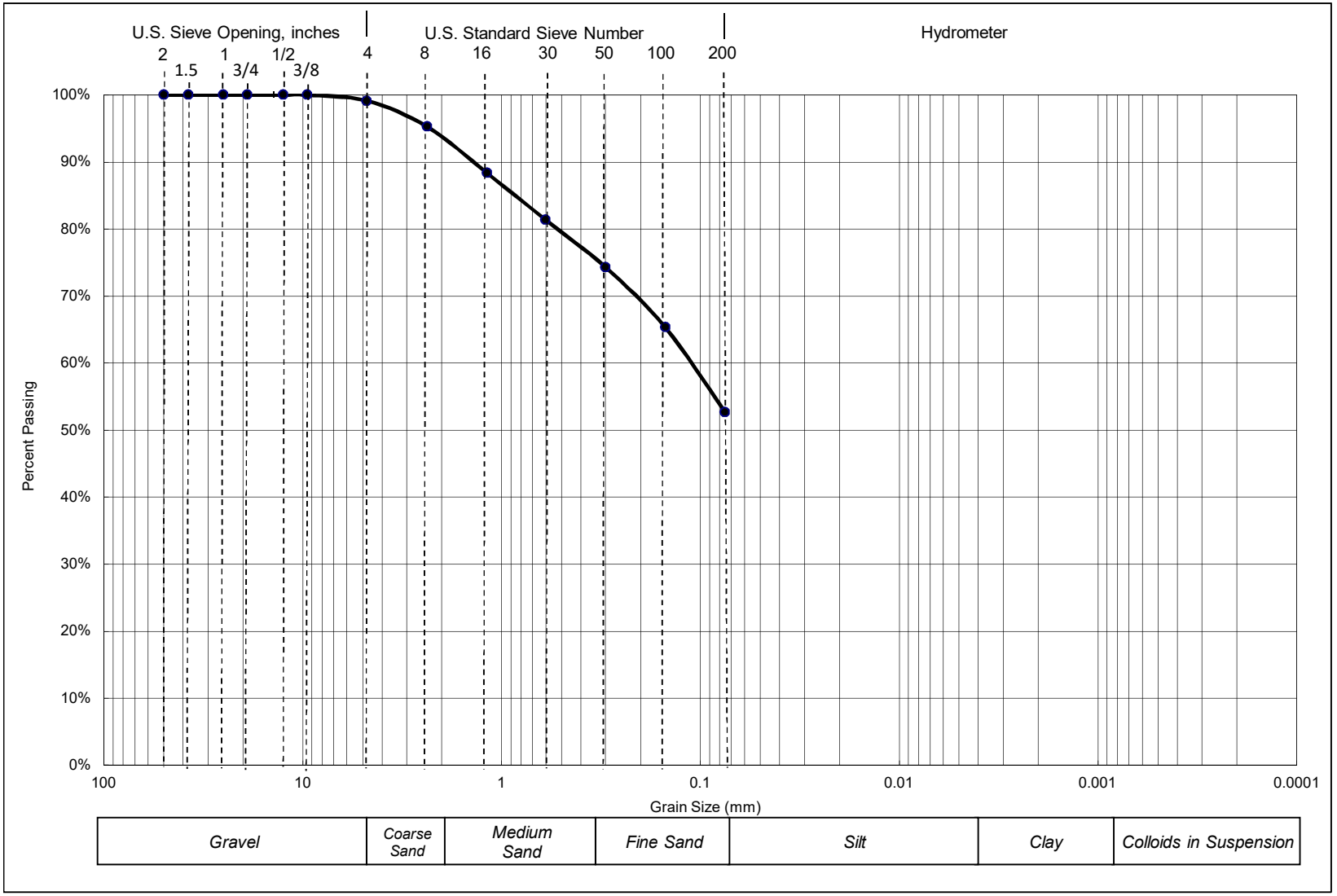
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	98.3%
No. 8	2.36	86.8%
No. 16	1.18	71.9%
No. 30	0.6	58.7%
No. 50	0.3	46.7%
No. 100	0.15	36.6%
No. 200	0.075	29.40%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 15'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 20'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

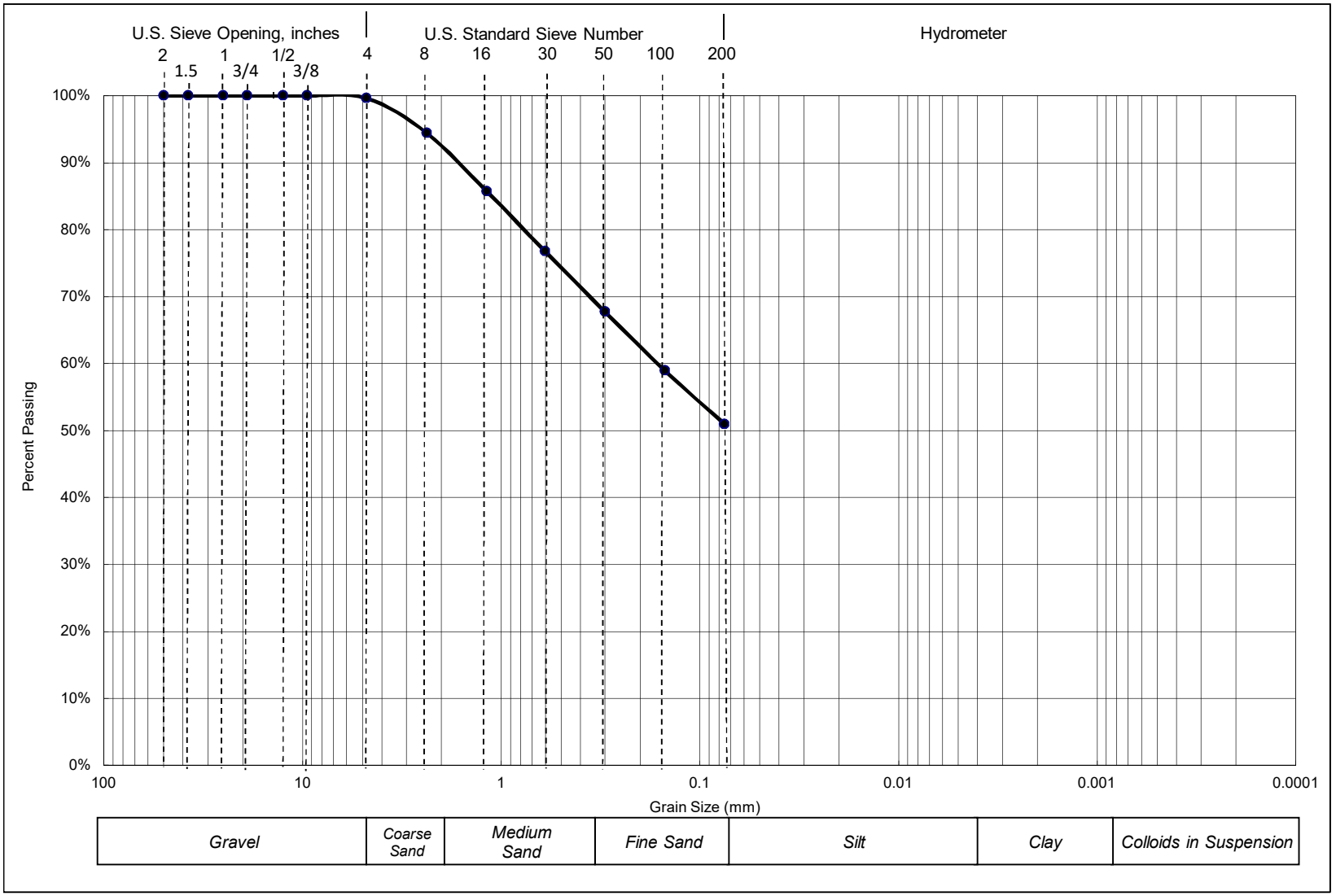
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.1%
No. 8	2.36	95.2%
No. 16	1.18	88.3%
No. 30	0.6	81.4%
No. 50	0.3	74.3%
No. 100	0.15	65.3%
No. 200	0.075	52.68%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 20'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 25'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

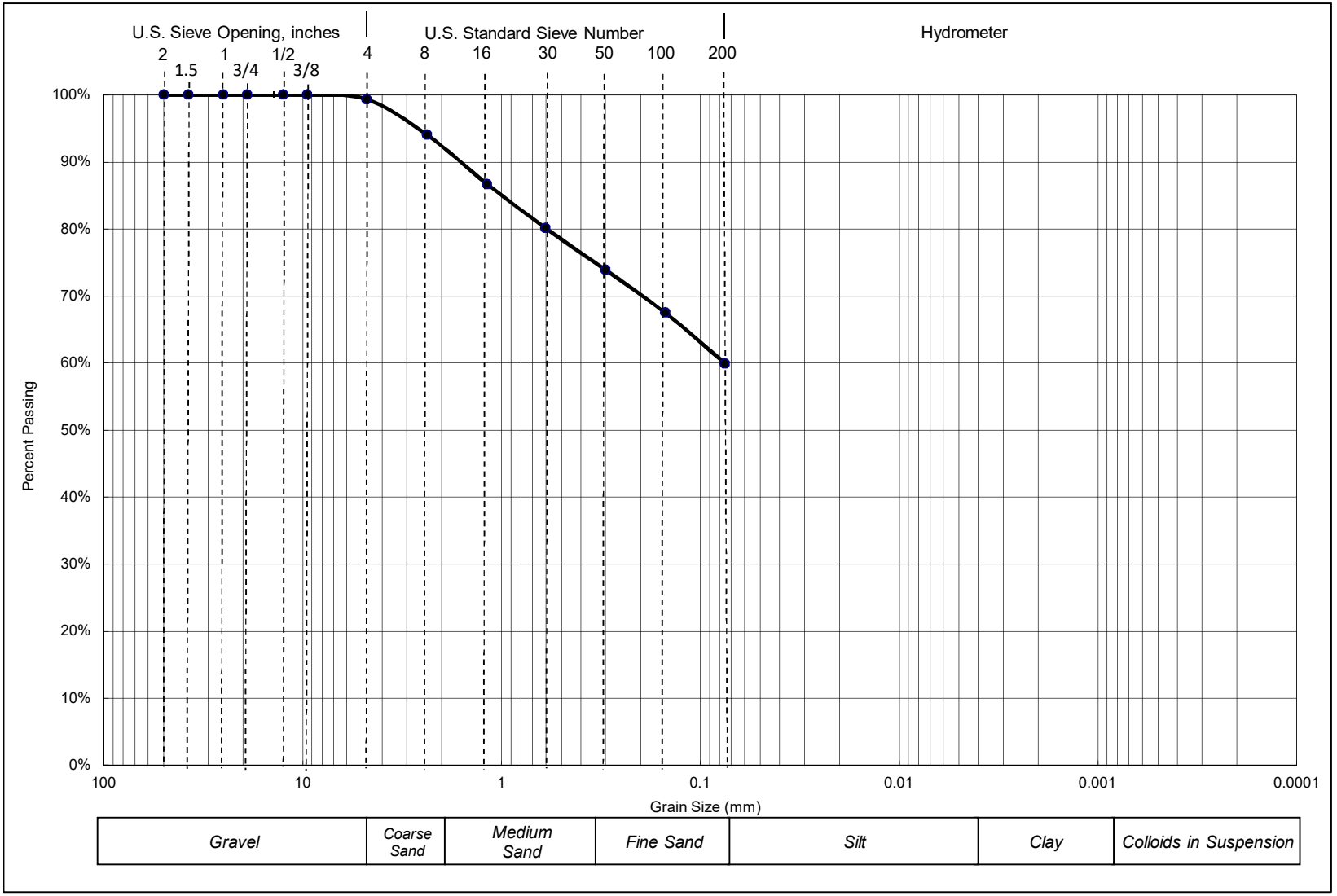
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.6%
No. 8	2.36	94.4%
No. 16	1.18	85.7%
No. 30	0.6	76.8%
No. 50	0.3	67.7%
No. 100	0.15	58.9%
No. 200	0.075	50.96%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 25'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 30'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

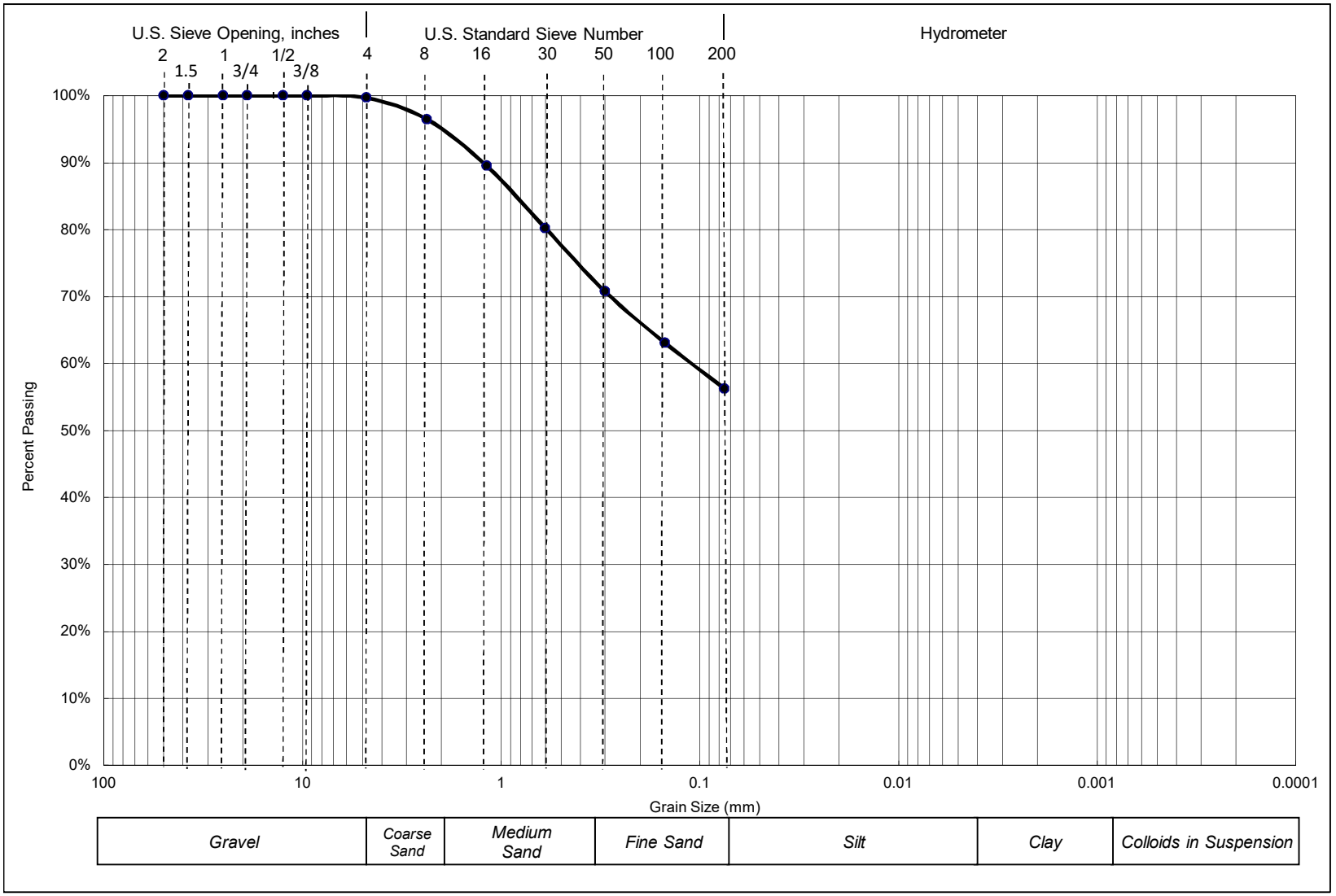
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.4%
No. 8	2.36	94.0%
No. 16	1.18	86.7%
No. 30	0.6	80.1%
No. 50	0.3	73.9%
No. 100	0.15	67.5%
No. 200	0.075	59.93%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 30'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 35'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

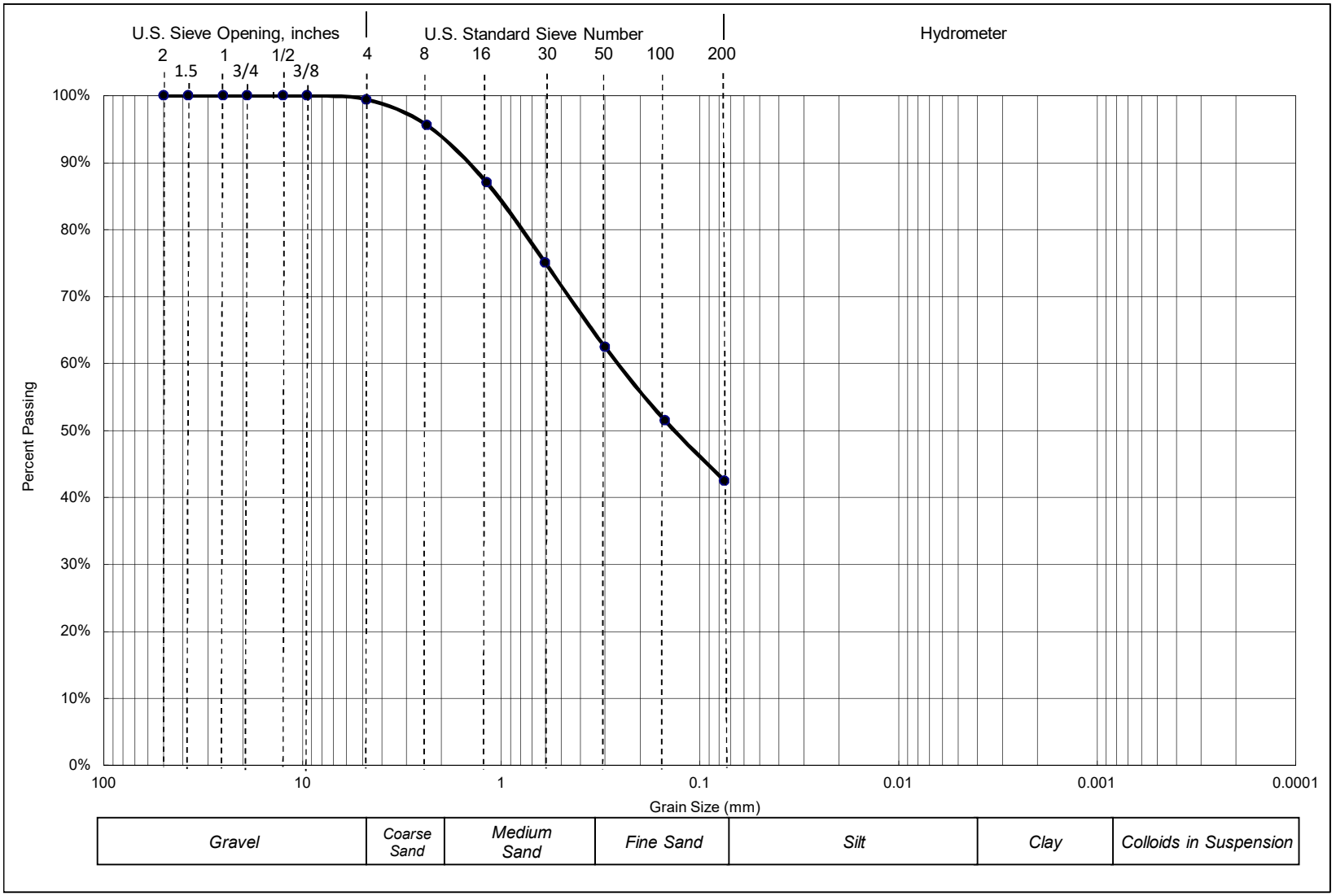
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.7%
No. 8	2.36	96.5%
No. 16	1.18	89.5%
No. 30	0.6	80.2%
No. 50	0.3	70.8%
No. 100	0.15	63.1%
No. 200	0.075	56.22%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 35'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 2'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

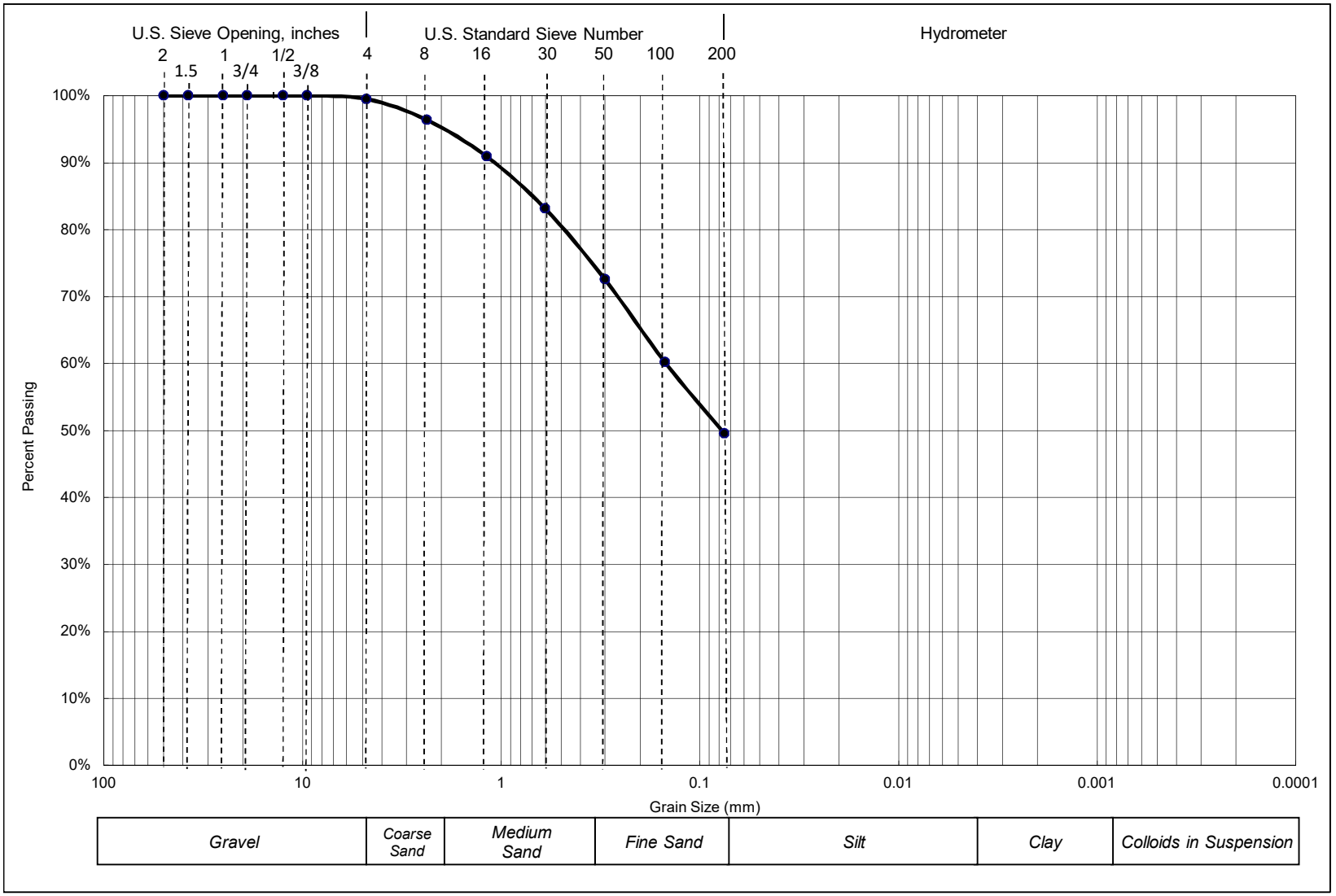
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.4%
No. 8	2.36	95.6%
No. 16	1.18	87.0%
No. 30	0.6	75.0%
No. 50	0.3	62.4%
No. 100	0.15	51.5%
No. 200	0.075	42.47%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-2 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 5'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.5%
No. 8	2.36	96.4%
No. 16	1.18	90.9%
No. 30	0.6	83.1%
No. 50	0.3	72.5%
No. 100	0.15	60.2%
No. 200	0.075	49.53%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-2 @ 5'

SALEM engineering group, inc.

EXPANSION INDEX TEST
ASTM D 4829 / UBC Std. 29-2

Project Number: 3-216-1097
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Date: 10/18/2016
Sample location/ Depth: B-1@ 0'-3'
Sample Number: 1
Soil Classification: Silty SAND (SM) with trace clay

Trial #	1	2	3
Weight of Soil & Mold, gms	619.5		
Weight of Mold, gms	186.7		
Weight of Soil, gms	432.8		
Wet Density, Lbs/cu.ft.	130.5		
Weight of Moisture Sample (Wet), gms	300.0		
Weight of Moisture Sample (Dry), gms	279.8		
Moisture Content, %	7.2		
Dry Density, Lbs/cu.ft.	121.7		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	50.8		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	--	--	--	--	0.0110

Expansion Index $_{measured}$ = 11
Expansion Index $_{50}$ = 11.3

Expansion Index = 11

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified Caltrans 417 & Cl - Modified Caltrans 417/422

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Date: 10/19/2016
Soil Classification: Silty SAND (SM) with trace clay

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-1 @ 0' - 3'	143 mg/Kg	164 mg/Kg	7.2
1b.	B-1 @ 0' - 3'	146 mg/Kg	166 mg/Kg	7.2
1c.	B-1 @ 0' - 3'	146 mg/Kg	167 mg/Kg	7.2
Average:		**145 mg/Kg**	**166 mg/Kg**	**7.2**

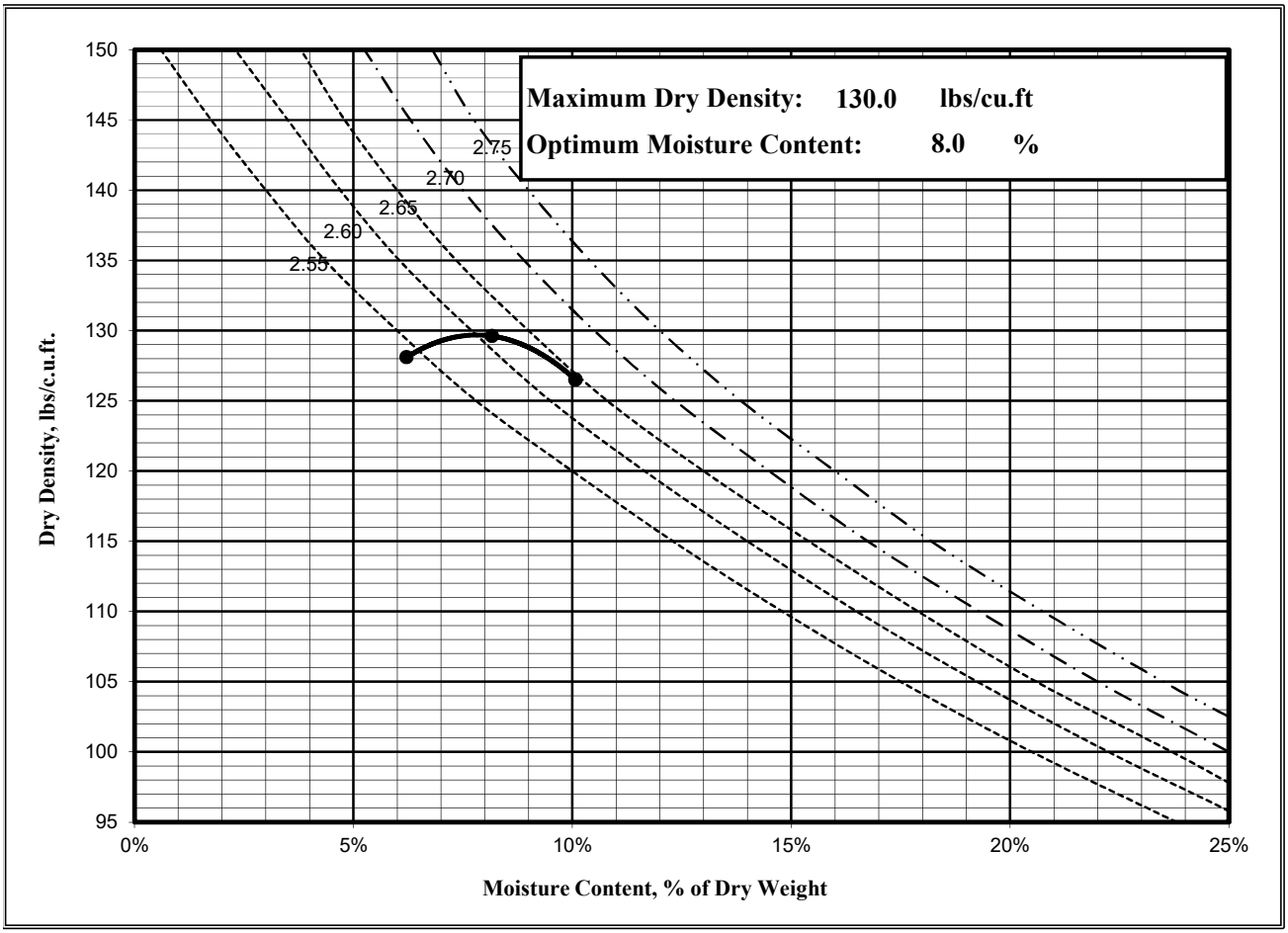
SALEM engineering group, inc.

LABORATORY COMPACTION CURVE

ASTM - D1557, D698

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Date Tested: 10/18/2016
Sample Location: B-1@ 0'-3'
Soil Classification: Silty SAND (SM) with trace clay
Sample/Curve Number: 1
Test Method: 1557 A

	1	2	3
Weight of Moist Specimen & Mold, gm	4360.5	4374.8	4312.3
Weight of Compaction Mold, gm	2257.1	2257.1	2257.1
Weight of Moist Specimen, gm	2103.4	2117.7	2055.2
Volume of mold, cu. ft.	0.0333	0.0333	0.0333
Wet Density, lbs/cu.ft.	139.3	140.2	136.1
Weight of Wet (Moisture) Sample, gm	200.0	200.0	200.0
Weight of Dry (Moisture) Sample, gm	181.7	184.9	188.3
Moisture Content, %	10.1%	8.2%	6.2%
Dry Density, lbs/cu.ft.	126.5	129.6	128.1



SALEM engineering group, inc.

APPENDIX

C

APPENDIX C
GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less that 95 percent of relative compaction (90 percent for fine-grained cohesive soils) based on ASTM D1557 Test Method (latest edition), UBC or CAL-216, or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and recompacted to 95 percent relative compaction (90 percent for fine-grained cohesive soils).

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and recompacted to 95 percent relative compaction (90 percent for fine-grained cohesive soils). All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed. The term "Standard Specifications": hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition) or California Test Method 216 (CAL-216), as applicable.

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent (90 percent for fine-grained cohesive soils) based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class II material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

PRELIMINARY DRAINAGE STUDY

PEN16-0113 (PA16-0077)
LST17 – 0010

VACANT LAND SITE
PROPOSED CAR WASH IMPROVEMENTS
APN: 292-160-023
SUNNYMEAD BLVD. & HEACOCK AVENUE
MORENO VALLEY, CA. 92557

PREPARED FOR
SH 60 AT HEACOCK STREET, LLC
PROPERTY OWNER
C/O P&N CONSTRUCTION
8730 WILSHIRE BLVD., SUITE 202
BEVERLY HILLS, CA. 90211

PREPARED BY
CIVIL TRANS INC.
732 N. DIAMOND BAR BLVD. SUITE 128
DIAMOND BAR, CA. 91765

DATE: NOVEMBER 27, 2017

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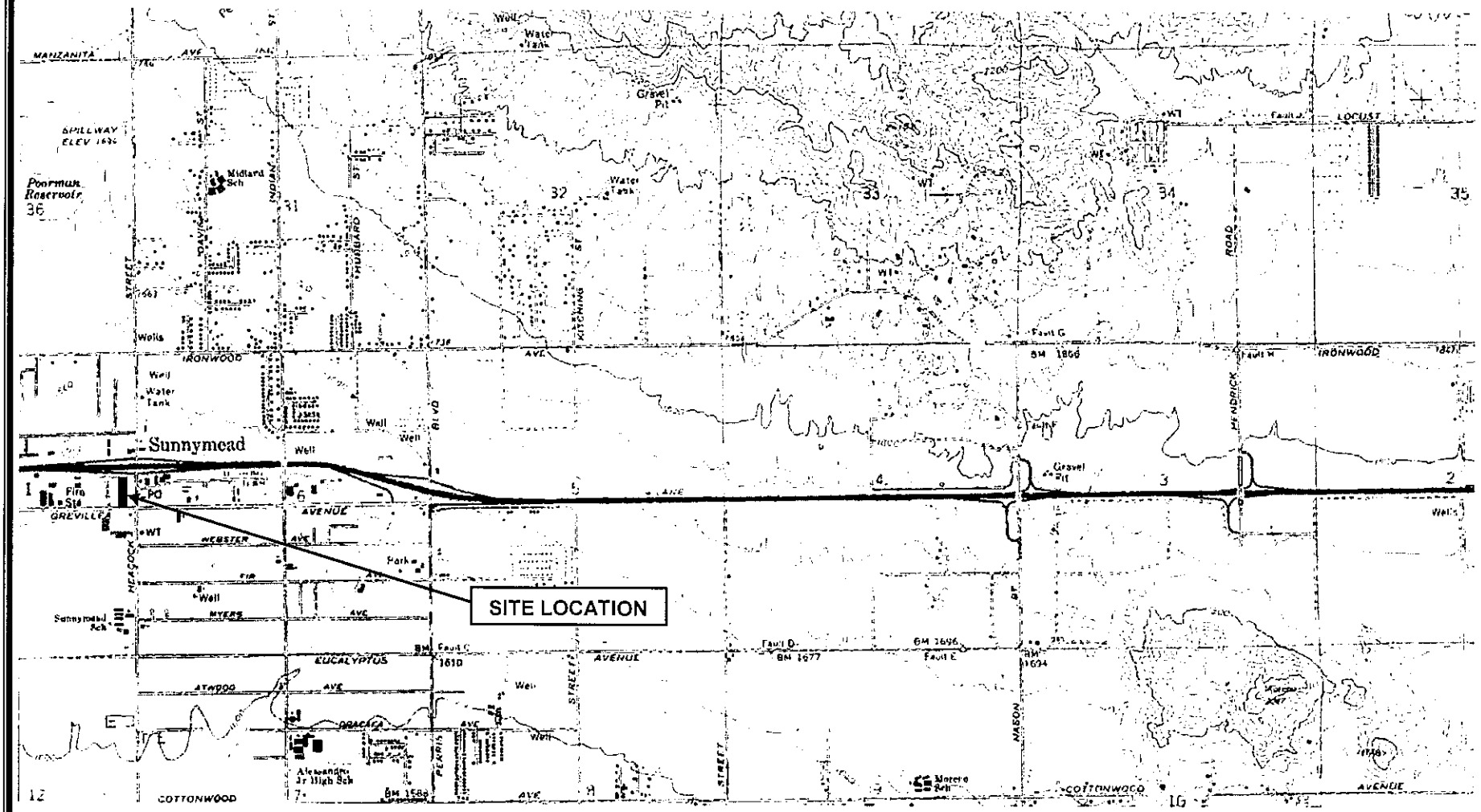

Source Image: U.S. Geological Survey, Sunnymead, Calif. 3117-H-2-TF-024, 1967 (Photorevised 1980)

VICINITY MAP

Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, California

SCALE:	DATE:
NOT TO SCALE	10/2016
DRAWN BY:	APPROVED BY:
II	CJ
PROJECT NO.	FIGURE NO.
3-216-1097	1

2/28

I. Introduction:

The subject site is a commercial use property located on the northwest side of Sunnymead Blvd and Heacock Avenue intersection in Moreno Valley, Riverside County, CA. 92557 as shown on the Vicinity Map. The site is approximately 1.68 acres, which is undeveloped and covered with sparse vegetation and dirt areas. The site is surrounded by mostly commercial and residential properties.

The site area consists of flat terrain which slopes southwards at about 1 percent gradient. The existing site runoff drains southwards as surface flow and is collected by 3- 24inch existing CMP drainage pipes located at the southwest corner of the site. These CMP drainage pipes run southwards across Sunnymead Blvd and through drainage easements on private properties and then eventually connect to the existing Sunnymead A.D.P. Line G-2 Storm Drain System north of Eucalyptus Avenue.(See Exhibit A-Existing Site)

The proposed development on this site consists of one carwash building structure on graded level pad. The proposed structure is located as shown per Exhibit B. There is a 40 feet wide access and exit driveway leading towards the carwash building and site parking areas. With the exception of few landscape areas, the remaining site area is paved and designated for parking use. (See Exhibit B-Improvement site Plan)

Currently, the site drains into existing 3-24inch CMP drain pipes system located at the southwest corner of this property as described above. On site storm water mitigation by utilizing ground infiltration is not feasible because of low infiltration rates of on site soil which does not satisfy the required infiltration criteria. Also, the proposed landscape areas on site are not large enough to justify storm water storage and then using it for irrigation purposes. Hence, a bio-filtration basin is considered to mitigate the post development site runoff. The planned location of this basin is within the landscape area on the south side of the property and just west of the proposed driveway. The basin is designed to mitigate total resulting post development runoff with slow discharge on to the adjacent landscape area and then to surface flow into the existing 24-inch CMP drain pipes that run across Sunnymead Blvd.

There is no change to the existing drainage pattern of the site as a result of proposed improvements. And, providing bio-filtration system for mitigation of post development site runoff would substantially reduce the drainage discharge rate into the existing storm drainage system.

3/28

II. Existing Site Drainage:

The existing site is approximately 1.68 acres and consists of very flat terrain. The total site drains in southerly direction towards Sunnymead Blvd into existing 3-24 inch CMP drain pipes located at the southwest corner of this site. These drain pipes run across Sunnymead Blvd. and connect to a 31"x 50" arched pipe within existing drainage easements on private properties. This arched pipe continues southwards and connects to the existing Sunnymead ADP line G-2 drainage system.The subject site is tributary to onsite drainage flows only.

Onsite Drainage: Exhibit A-Existing Site shows the existing drainage pattern of the project site which consists of surface drainage from north to south across the entire length of the property towards Sunnymead Blvd and into existing 3-24inch CMP drain pipes system as described above. The existing onsite Q_{10} runoff totals to 1.49 cfs and Q_{100} runoff is 2.36 cfs.

Offsite Drainage: Based on the current field investigation, there is no offsite drainage from the adjacent properties onto project site area. The westerly adjacent properties are commercial buildings with boundary block wall at the site property line, thus draining that area towards westerly direction and away from the project site. Freeway 60 is on the north side of the subject property and no drainage from the freeway areas flows onto the subject property. The commercial improvements on the east side of the project site drain in easterly and southerly direction and mitigate their own drainage.

4/28

III. Post Development Site Drainage:

The proposed site development consists of one carwash building and open parking areas. The remaining site will include paved sidewalks, driveway, patios, strip planters and landscape areas. The proposed grading is designed to follow the existing drainage pattern of the site surface flows from north to south direction.

As shown on the Improvement Site Plan, the total improvement site is divided into one drainage sub-area to mitigate the resulting storm water runoff. Sub-area D-1 is 1.68 acres and it includes runoff from the new building along with the parking areas and the access and exit driveways. Runoff from these areas is graded to surface flow southwards into a bio-filtration basin for onsite storm water mitigation. The outflow from the basin is controlled discharge onto adjacent landscape area which surface flows towards the existing CMP drain pipes mentioned earlier.

The resulting post development drainage runoff from Sub-area D-1 are $Q_{10} = 3.07$ cfs and $Q_{100} = 4.50$ cfs as shown in Section IV (Hydrology Study and Computations) of this report which are mitigated by means of proposed onsite bio-filtration basin. The outflow from the basin is controlled by providing a 6-inch diameter outlet which has full flowing $Q = 0.68$ cfs so it does not exceed the pre-development site discharge into the existing 24" CMP drainage pipes.
(See Exhibit B- Improvement Site Plan)

The total post development onsite runoff Q_{10} is 3.07 cfs and Q_{100} is 4.50 cfs as a result of new improvements which include more impervious area. The respective post development increase in drainage runoff for Q_{10} is 1.58 cfs and for Q_{100} is 2.14 cfs which is mitigated by means of controlled outflow discharge from the proposed bio-filtration basin. Mitigated water is discharged from the bio-filtration basin into an adjacent catch basin which has a 6-inch diameter outflow opening onto a rock riprap. The opening has a full flowing $Q = 0.68$ cfs which is substantially less than the existing condition outflow rates.
Refer to Section IV of this report for Hydrology Study and Computations.

TABLE III.1

Existing and Post Development Flow Rates

Q	Existing	Post Development	Increase
Q_{10}	1.49 cfs	3.07 cfs	1.58 cfs
Q_{100}	2.36 cfs	4.50 cfs	2.14 cfs

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IV. Hydrology Study and Computations

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IV. Hydrology Study and Computations:

Reference Material:

1. Riverside County Flood Control and Water Conservation District Hydrology Manual.
2. Exhibit A-Existing Site.
3. Exhibit B-Improvement Site Plan

Project Site Area:

1. Total Site Area: 1.68 acres
2. Existing Site Sub-area A-1: 1.68 acres
3. Post Development Sub-area D-1: 1.68 acres

Hydrologic Data:

1. Initial Time of Concentration: T_c Plate D-3
2. Soil Group Designation: B Plate C-1.17
3. Intensity of Rainfall: I_{10}, I_{100} Plates D-4.1 & D-4.2
4. Coefficient of Runoff: C Plate D-5.2

Q_{10} Computations:

$Q = CIA$

Sub-Area	C	I	A	Q_{10}
A-1	0.548	1.62 in	1.68 ac	1.49 cfs
D-1	0.870	2.10 in	1.68 ac	3.07 cfs

Total Runoff, Existing Site:

$Q_{10} = 1.49$ cfs

Total Runoff, Developed Site:

$Q_{10} = 3.07$ cfs

Post Development Runoff Increase = 3.07 – 1.49 = 1.58 cfs

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Q_{100} Computations:

$Q = CIA$

Sub-Area	C	I	A	Q_{100}
A-1	0.612	2.30 in	1.68 ac	2.36 cfs
D-1	0.880	3.05 in	1.68 ac	4.50 cfs

Total Runoff, Existing Site:

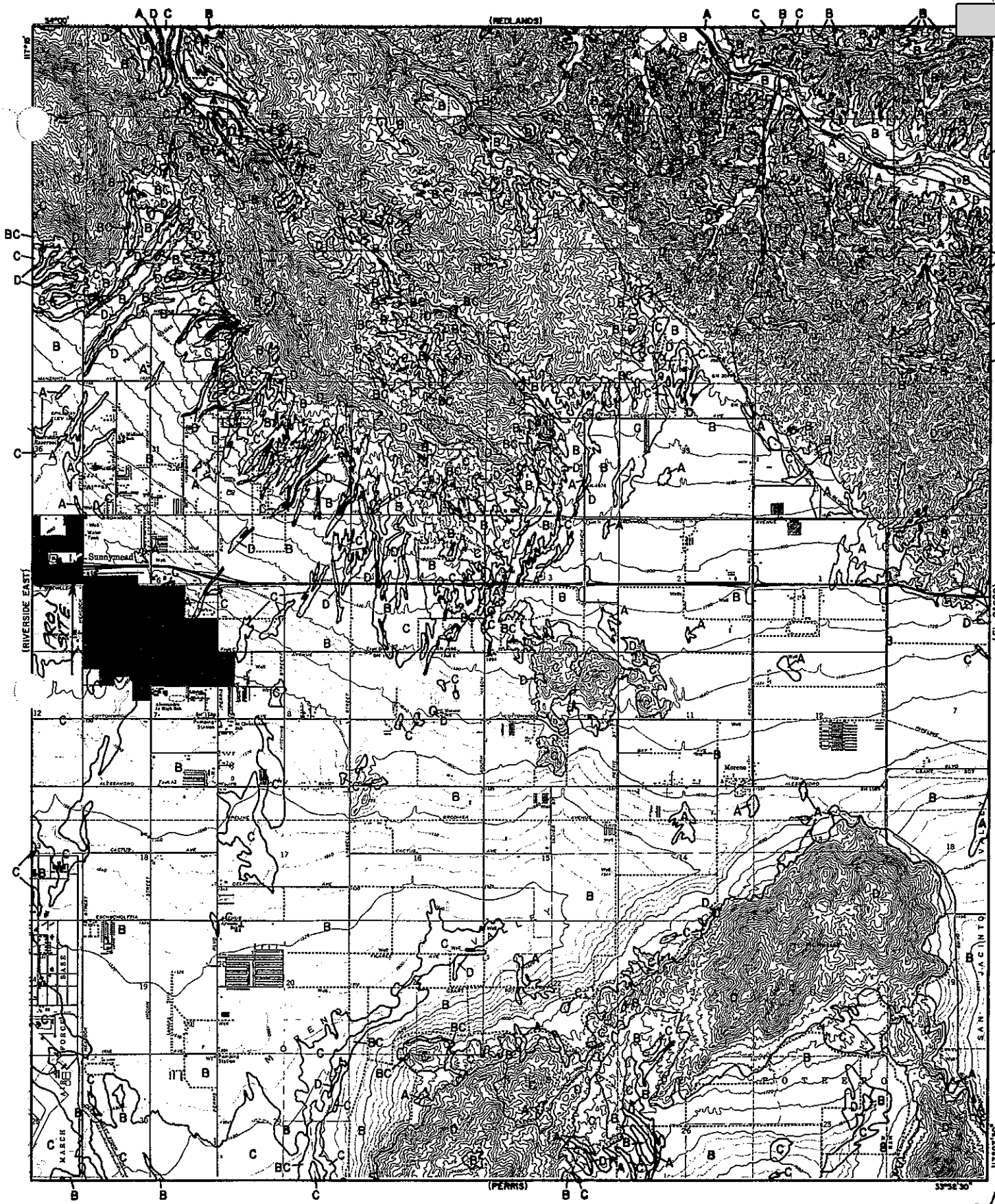
$Q_{100} = 2.36$ cfs

Total Runoff, Developed Site:

$Q_{100} = 4.50$ cfs

Post Development Runoff Increase = 4.50 – 2.36 = 2.14 cfs

8/28



9/28

LEGEND

SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR SUNNYMEAD

PLATE C-1.17

RCFC & WCD HYDROLOGY MANUAL
RATIONAL METHOD CALCULATION FORM

Sheet No. 10 of 28 She

PROJECT MORENO VALLEY CAR WASH; APN = 292-160-023

Calculated by HH 03-20- DATE

EXISTING SITE FREQUENCY 10 YEAR

Checked by JMA 03-20- DATE

DRAINAGE AREA	Soil & Development	A Acres	I in/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
A-1	B VACANT LAND	1.68	1.62	0.548	1.49	1.49	0.016	SURFACE FLOW	0.58	525	15.0	15.0	SURFACE FLOW NATURAL GROUND
TOTAL EXISTING RUNOFF Q10		1.68			1.49								
DEVELOPED SITE													
D-1	B	1.68	2.10	0.870	3.07	3.07	0.010	SURFACE FLOW	1.0	520	9.0	9.0	SURFACE OVERFLOW O PERVIOUS CONCRETE
TOTAL DEVELOPED RUNOFF Q100		1.68			3.07								

PLATE D-2

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RCFC & WCD HYDROLOGY MANUAL
RATIONAL METHOD CALCULATION FORM

Sheet No. 11 of 28 She

PROJECT MORENO VALLEY CAR WASH, APN: 292-160-023

EXISTING SITE

FREQUENCY 100-YEAR

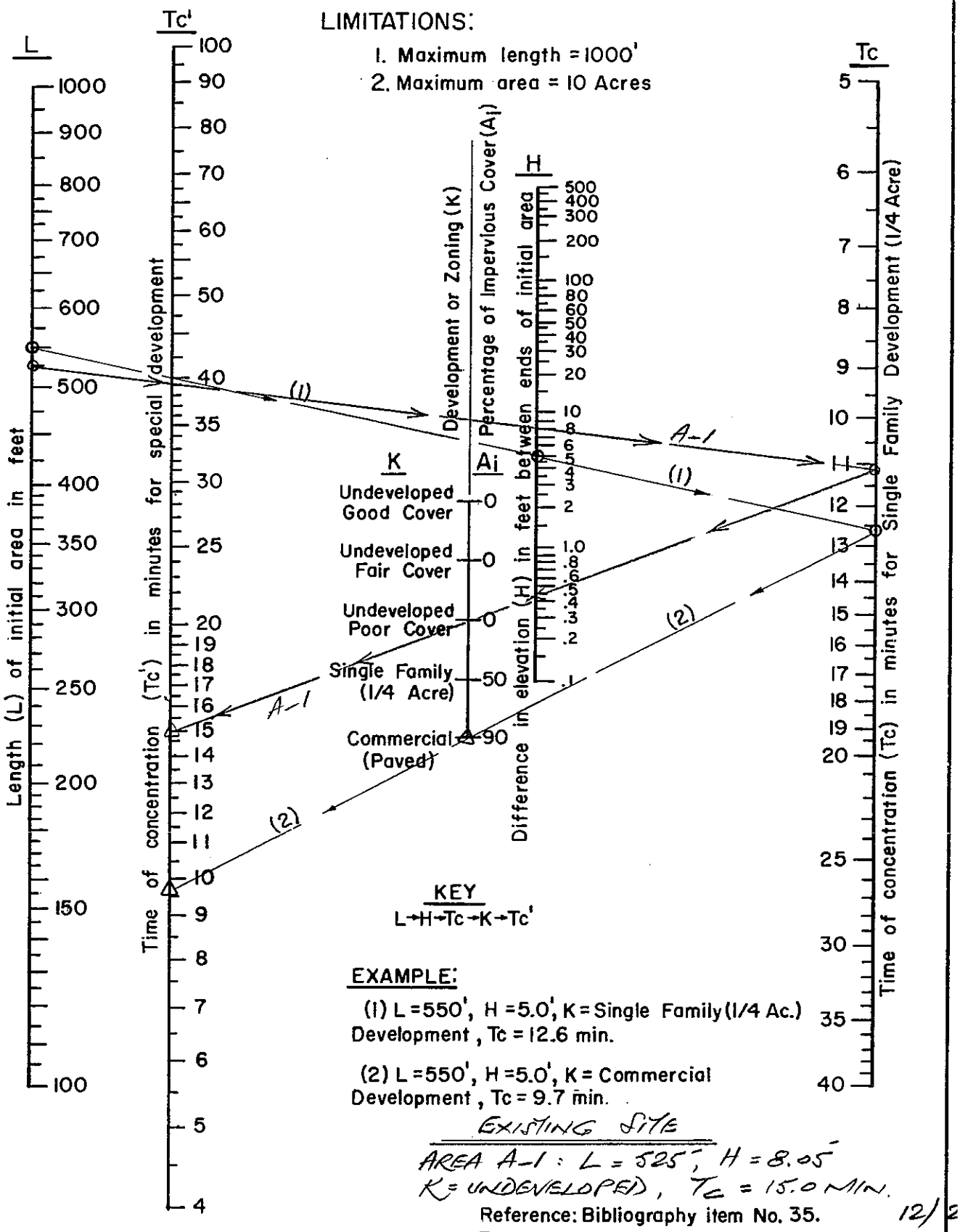
Calculated by HH 03-20-
DATE

Checked by JMA 03-20
DATE

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	ΣQ CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	ΣT	REMARKS
A-1	B VACANT LAND	1.68	2.30	0.612	2.36								
						2.36	0.016	SURFACE FLOW	0.58	525	15.0		SURFACE FLOW NATURAL GROUND
												15.0	
TOTAL EXISTING RUNOFF Q100		1.68			2.36								
	DEVELOPED SITE												
D-1	B COMMERCIAL	1.68	3.05	0.880	4.50								
						4.50	0.10	SURFACE FLOW	1.0	520	9.0		
												9.0	SURFACE OVERFLOW ON PERVIOUS CONCRETE
TOTAL DEVELOPED RUNOFF Q100		1.68			4.50								

PLATE D-2

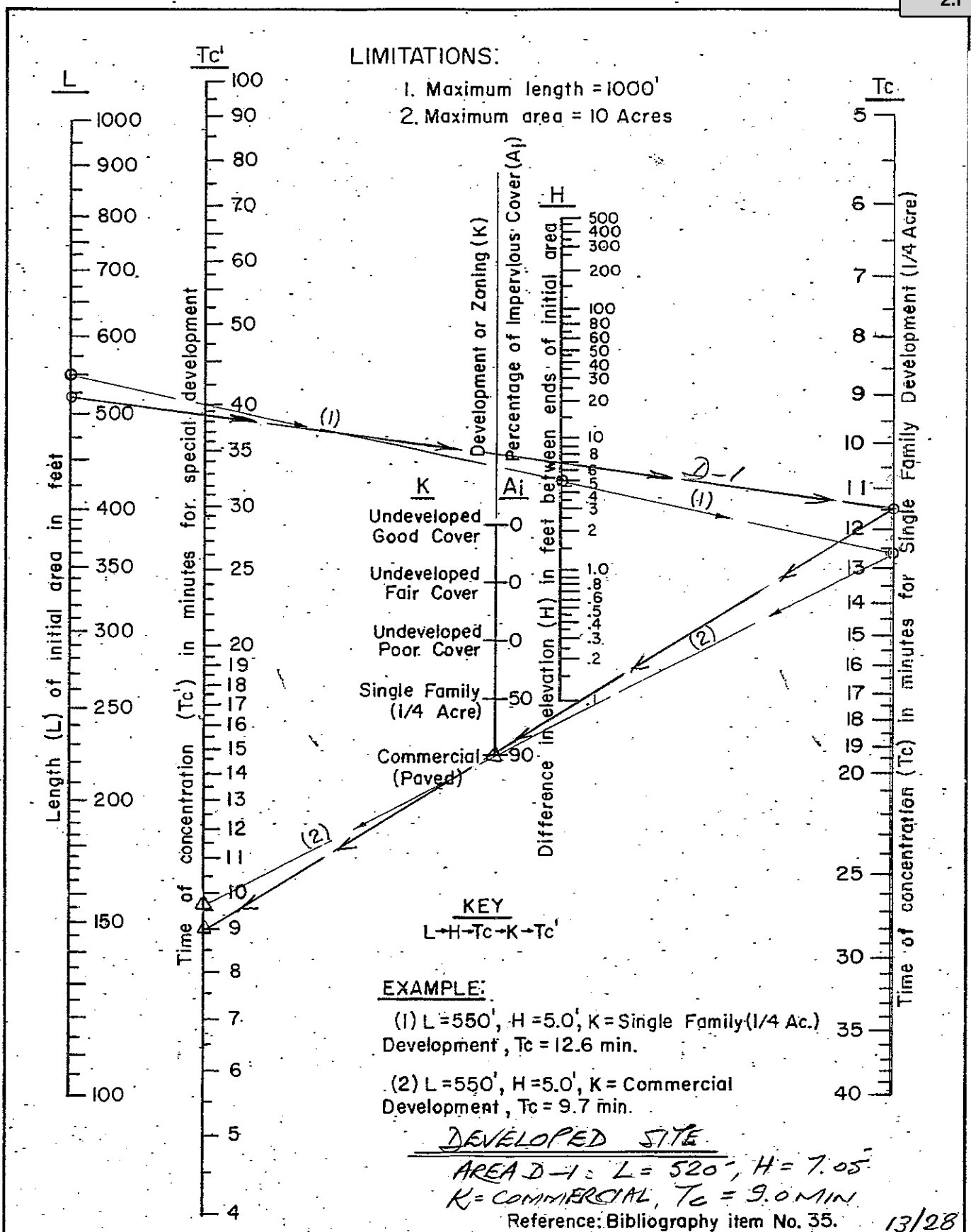
6/11/88



RCFC & WCD
HYDROLOGY MANUAL

TIME OF CONCENTRATION
FOR INITIAL SUBAREA

PLATE



RCFC & WCD
HYDROLOGY MANUAL

TIME OF CONCENTRATION
FOR INITIAL SUBAREA

PLATE

RAINFALL INTENSITY—INCHES PER HOUR

SUNNYMEAD - MORENO			WOODCREST		
DURATION MINUTES	FREQUENCY 10 YEAR	FREQUENCY 100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	FREQUENCY 100 YEAR
5	2.84	4.16	5	3.37	5.30
6	2.59	3.79	6	3.05	4.79
7	2.40	3.51	7	2.80	4.40
8	2.25	3.29	8	2.60	4.09
9	2.12	3.10	9	2.44	3.83
10	2.01	2.94	10	2.30	3.62
11	1.92	2.80	11	2.19	3.43
12	1.83	2.68	12	2.08	3.27
13	1.76	2.58	13	1.99	3.13
14	1.70	2.48	14	1.91	3.01
15	1.64	2.40	15	1.84	2.89
16	1.59	2.32	16	1.78	2.79
17	1.54	2.25	17	1.72	2.70
18	1.50	2.19	18	1.67	2.62
19	1.46	2.13	19	1.62	2.54
20	1.42	2.08	20	1.57	2.47
22	1.35	1.98	22	1.49	2.34
24	1.30	1.90	24	1.42	2.23
26	1.25	1.82	26	1.36	2.14
28	1.20	1.76	28	1.31	2.05
30	1.16	1.70	30	1.26	1.98
32	1.12	1.64	32	1.22	1.91
34	1.09	1.59	34	1.18	1.85
36	1.06	1.55	36	1.14	1.79
38	1.03	1.51	38	1.11	1.74
40	1.00	1.47	40	1.07	1.69
45	.95	1.39	45	1.01	1.58
50	.90	1.31	50	.95	1.49
55	.86	1.25	55	.90	1.42
60	.82	1.20	60	.86	1.35
65	.79	1.15	65	.82	1.29
70	.76	1.11	70	.79	1.24
75	.73	1.07	75	.76	1.19
80	.71	1.04	80	.73	1.15
85	.69	1.01	85	.71	1.11
SLOPE = .500			SLOPE = .550		

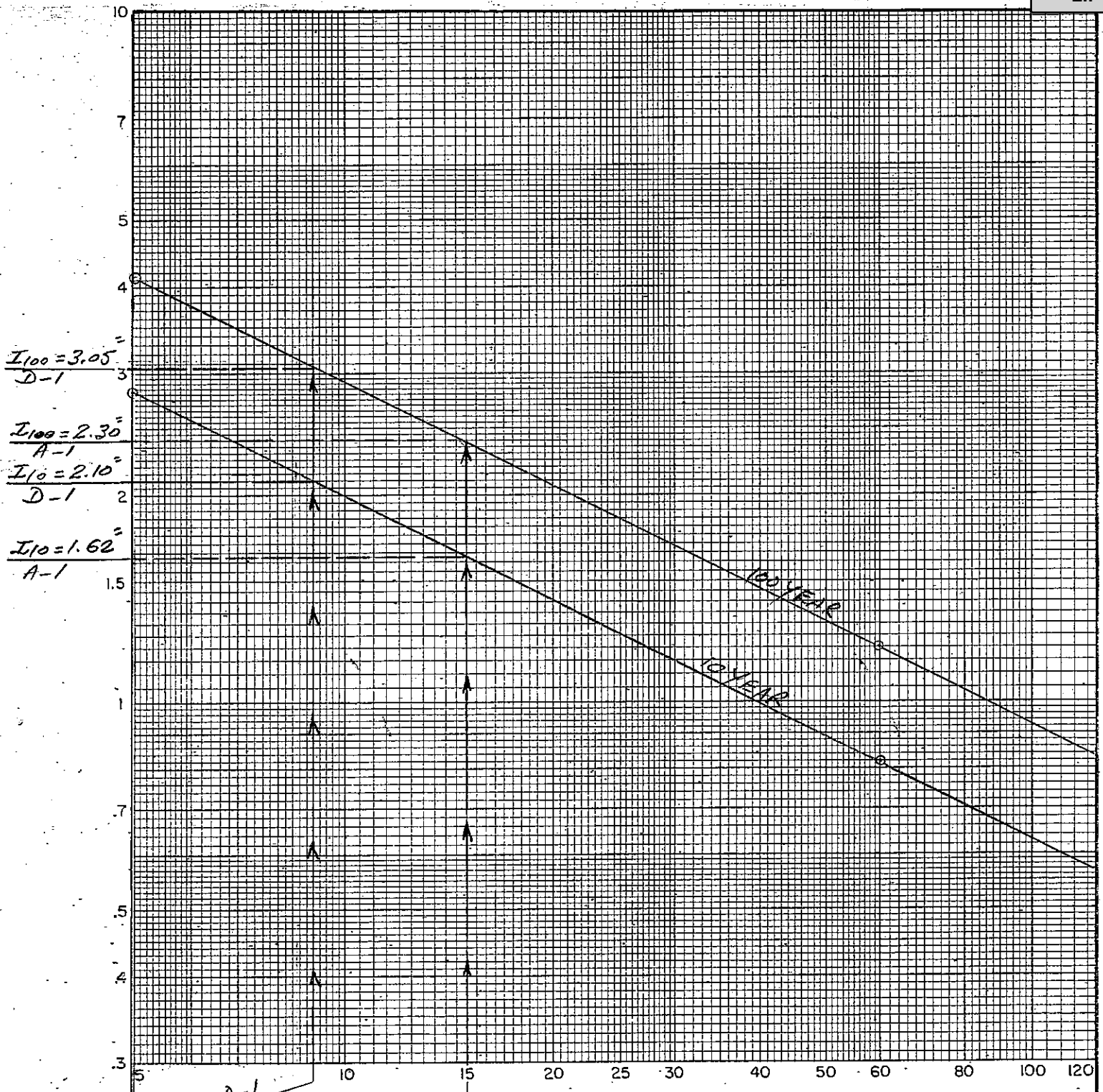
RCFC & WCD

HYDROLOGY MANUAL

STANDARD INTENSITY-DURATION CURVES DATA

PLATE D-4.1 (6 of 6)

14/28



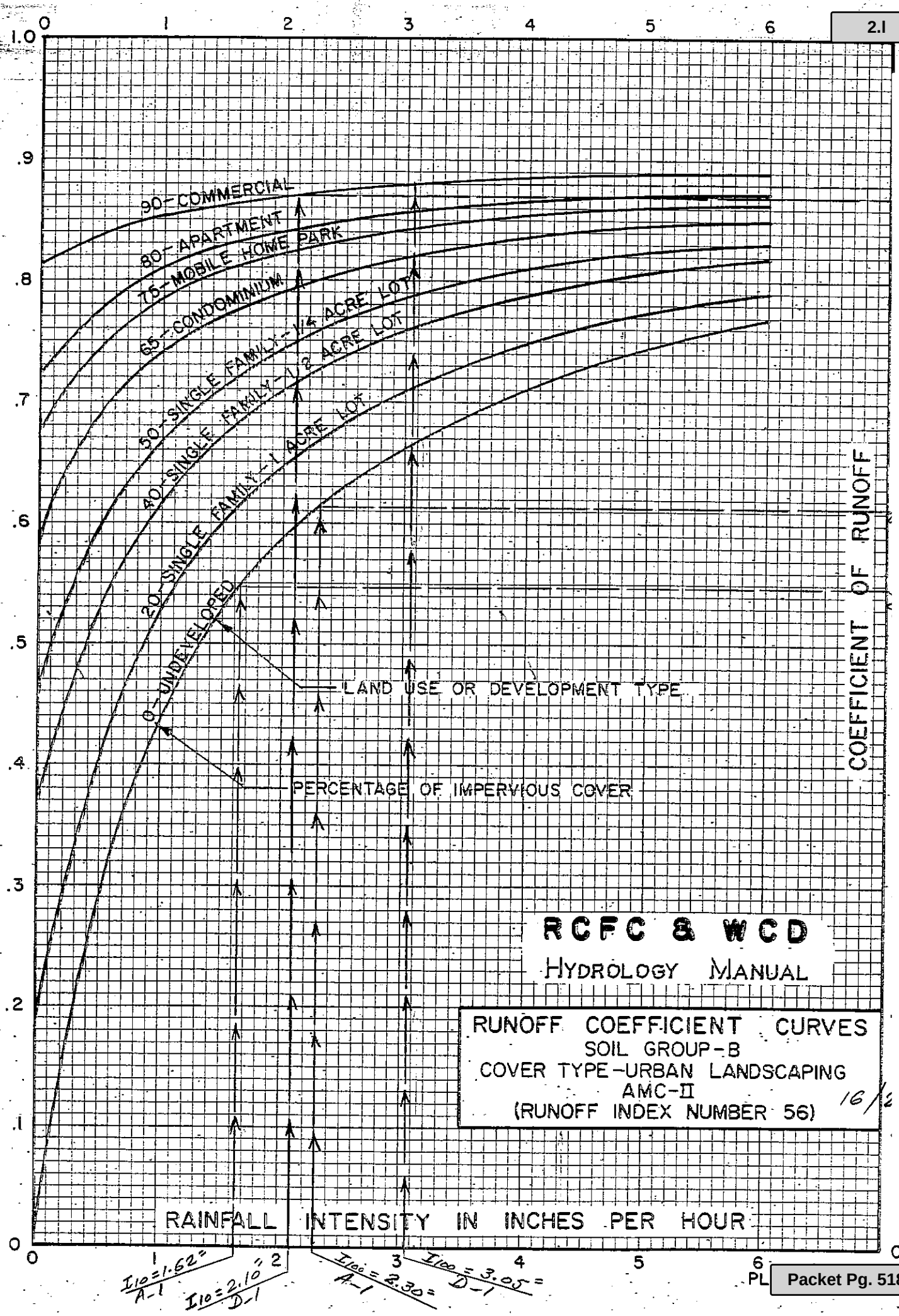
15/28

RCFC & WCD

HYDROLOGY MANUAL

INTENSITY – DURATION CURVES

PL



RCFC & WCD

HYDROLOGY MANUAL

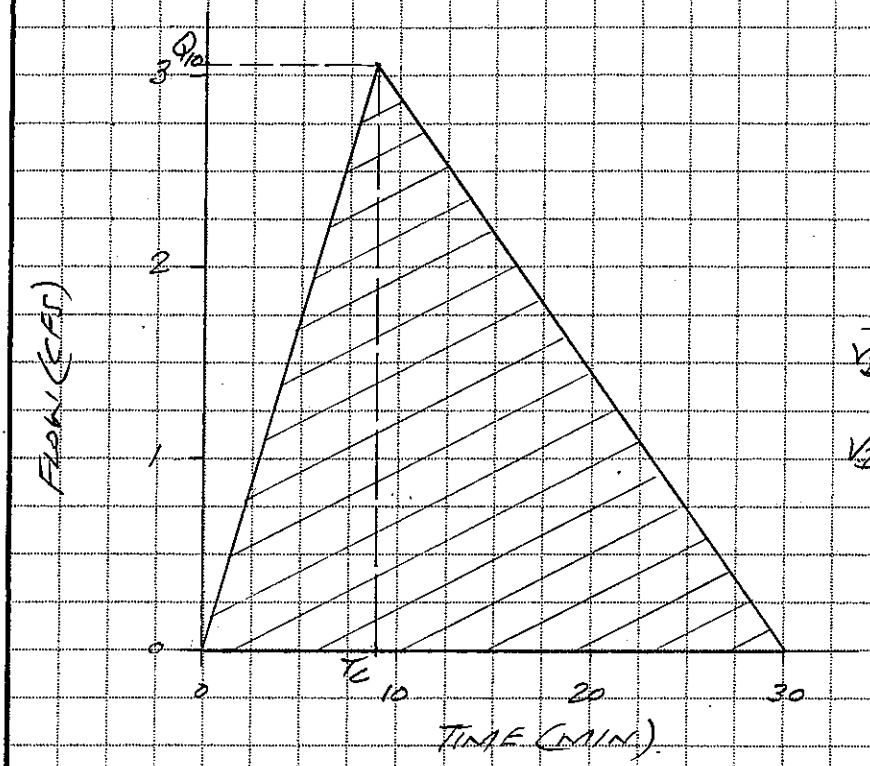
RUNOFF COEFFICIENT CURVES
SOIL GROUP-B
COVER TYPE-URBAN LANDSCAPING
AMC-II
(RUNOFF INDEX NUMBER 56)

CIVIL TRANS INC.
732 N. Diamond Bar Blvd.
Suite No. 128
Diamond Bar, CA. 91765
(909) 396-1131 FAX (909) 396-0328

JOB 450-269P1: CARWASH MORENO VALLEY APN: 292-160-0
SHEET NO. 17 OF 28
CALCULATED BY HH DATE 03-20-2017
CHECKED BY JMA DATE 03-20-2017
SCALE

2.1

DEVELOPED AREA RUNOFF UNIT HYDROGRAPH



$T_c = 9.0$ MIN

$Q_{10} = 3.07$ CFS

SUB-AREA : D-1

$V_{DEV} = (0.5)(Q_{10})(30\text{ MIN})(60\text{ SEC/MIN})$

$= (0.5)(3.07)(30)(60)$

$V_{DEV} = 2,763$ C.F.

17/28

V. Runoff Mitigation and Hydraulics

V. Runoff Mitigation and Hydraulics:

As mentioned earlier in this report, the project site is tributary to only onsite drainage runoff resulting from drainage Sub-area D-1. Runoff from roof and impervious areas surface flows southwards and drains into the proposed bio-retention/filtration basin for storm water mitigation as shown on the project plans. The outflow from the basin is controlled so it does not exceed the pre development site discharge into the existing 36-inch drainage pipes. Mitigated water is discharged from the bio-filtration basin into an adjacent catch basin which has a 6-inch diameter outflow opening onto a rock riprap. The opening has a full flowing Q = 0.68 cfs which is substantially less than the existing condition outflow rates.

Onsite ground infiltration is not feasible because of low ground infiltration encountered as shown on the site percolation tests data provided in the soils report.

Also, the proposed site development does not have sufficient landscape/irrigation areas for storm water storage and reuse purpose.

Hence, a 50'x40' bio-retention/filtration basin is proposed to mitigate the post development runoff which is also identified and sized in the project WQMP report.

VI. Soil Percolation Tests and Results

Salem Engineering Group inc.

Tests date: October 11, 2016

The water-soluble chloride concentration detected in saturation extract from the soil samples was 166 mg/kg. This level of chloride concentration is not considered severely corrosive. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, applicable manufacturer's recommendations for corrosion protection of buried metal pipe be closely followed.

8.4 Percolation Testing

Two percolation tests (P-1 and P-2) were performed within assumed infiltration areas and were conducted in accordance with in accordance with the guidelines established by the County of Riverside. The approximate locations of the percolation tests are shown on the attached Site Plan, Figure 2.

Eight-inch diameter boreholes were advanced to the depths shown on the percolation test worksheets. The holes were pre-saturated a minimum of 18 hours and maximum of 24 hours before percolation testing commenced. Percolation rates were measured by filling the test holes with clean water and measuring the water drops at a certain time interval.

The percolation rate data are presented in tabular format at the end of this Report. The difference in the percolation rates are reflected by the varied type of soil materials at the bottom of the test holes. The test results are shown on the table below.

Test No.	Depth (fcet)	Measured Percolation Rate (min/inch)	Tested Infiltration Rate* (inch/hour)	Soil Type
P-1	10	31.3	0.14	Silty SAND /Sandy SILT (SM/ML) with clay
P-2	20	20.8	0.24	Silty SAND (SM) with clay

* Tested infiltration Rate = $(\Delta H\ 60\ r) / (\Delta t(r + 2H_{avg}))$

The soil infiltration or percolation rates are based on tests conducted with clear water. The infiltration/percolation rates may vary with time as a result of soil clogging from water impurities. The infiltration/percolation rates will deteriorate over time due to the soil conditions and an appropriate factor of safety (FS) may be applied. The owner or civil engineer may elect to use a lower FS for the design; however, more frequent maintenance will be expected. The soils may also become less permeable to impermeable if the soil is compacted. Thus, periodic maintenance consisting of clearing the bottom of the drainage system of clogged soils should be expected.

The infiltration/percolation rate may become slower if the surrounding soil is wet or saturated due to prolonged rainfalls. Additional percolation tests may be conducted at bottom of the drainage system during construction to verify the infiltration/percolation rate. Groundwater, if closer to the bottom of the drainage system, will also reduce the infiltration/percolation rate.

The scope of our services did not include a groundwater study and was limited to the performance of percolation testing and soil profile description, and the submitted data only. Our services did not include those associated with septic system design. Neither did services include an Environmental Site

21/28

Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands.

Any statements, or absence of statements, in this report or on any boring logs regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices. The work conducted through the course of this investigation, including the preparation of this report, has been performed in accordance with the generally accepted standards of geotechnical engineering practice, which existed in the geographic area at the time the report was written. No other warranty, express or implied, is made.

Please be advised that when performing percolation testing services in relatively small diameter borings, that the testing may not fully model the actual full scale long term performance of a given site. This is particularly true where percolation test data is to be used in the design of large infiltration system such as may be proposed for the site.

The measured percolation rate includes dispersion of the water at the sidewalls of the boring as well as into the underlying soils. Subsurface conditions, including percolation rates, can change over time as fine-grained soils migrate. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction of improvements at the site as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

9.1.2 The primary geotechnical constraints identified in our investigation is the presence of potentially compressible material at the site. Recommendations to mitigate the effects of these soils are provided in this report.

9.1.3 Fill materials may be present onsite beyond our boring location. The fill materials consisted of loose to medium dense silty sand. Undocumented fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspeet the bottom of the excavation to verify the fill condition.

22/28

CIVIL TRANS INC.
732 N. Diamond Bar Blvd.
Suite No. 128
Diamond Bar, CA. 91765
(909) 396-1131 FAX (909) 396-0328

JOB 450-269TI: CARWASH MORENO APN: 292-160-02
SHEET NO. 23 OF 28
CALCULATED BY HH DATE 07-10-2017
CHECKED BY JMA DATE 07-10-201
SCALE

2.1

SUB-AREA D-1, DRAINAGE MITIGATION: Q10yr

BIO RETENTION BASIN: (REFER TO PLAN SHTS C-3 & C-4)

THE POST DEVELOPMENT RUNOFF FROM SUB-AREA D-1 IS MITIGATED BY BIO RETENTION BASIN AS SHOWN ON THE PROJECT PLANS. MINIMUM SURFACE AREA, A_M IS PROVIDED TO MITIGATE THE V_{DEP}

$$A_M = \frac{V_{DES}}{d_E}$$ (d_E: EFFECTIVE DEPTH)

$$d_E = (0.3 \times d_s) + (0.4) \times 1 - \left(\frac{0.7}{W_T}\right) + d_p$$

d_s: DEPTH = 2'
W_T: WIDTH = 40'
d_p: PONDING = 6" = 0.50

$$d_E = (0.3 \times 2) + (0.4) \times 1 - \left(\frac{0.7}{40}\right) + 0.50$$

$$d_E = (0.6) + (0.4) \times 1 - (0.0175) + 0.50$$

$$d_E = 0.6 + 0.4 - 0.0175 + 0.50 = 1.48$$

$$A_M = \frac{2,763}{1.48} = 1,866.90 \text{ SF}$$

$V_{DEP} = 2,763$ CF

A_P = PROPOSED SIZE = 50' x 40' = 2,000 SF

$A_P = 2,000$ SF > $A_M = 1,867$ SF ∴ OK

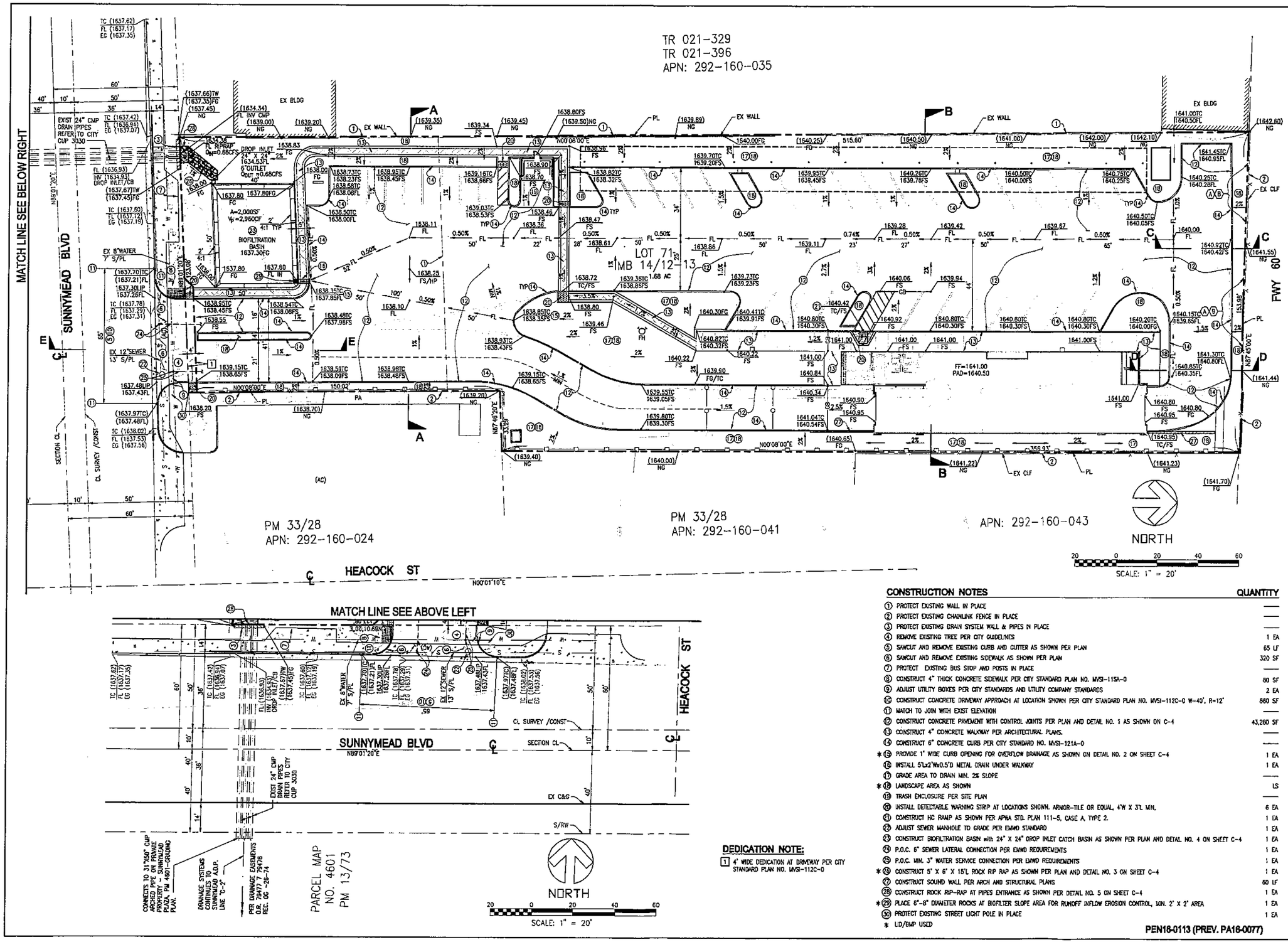
PROPOSED RUNOFF VOLUME FOR MITIGATION: V_P

$V_P = A_P \times d_E$

$= 2,000$ SF $\times 1.48$

$= 2,960$ CF

$V_P = 2,960$ CF > $V_{DEP} = 2,763$ CF ∴ OK



DEDICATION NOTE:

[1] 4' WIDE DEDICATION AT DRIVEWAY PER CITY STANDARD PLAN NO. MVSI-112C-0

CONSTRUCTION NOTES

		QUANTITY
1	PROTECT EXISTING WALL IN PLACE	—
2	PROTECT EXISTING CHAINLINK FENCE IN PLACE	—
3	PROTECT EXISTING DRAIN SYSTEM WALL & PIPES IN PLACE	—
4	REMOVE EXISTING TREE PER CITY GUIDELINES	1 EA
5	SAWCUT AND REMOVE EXISTING CURB AND GUTTER AS SHOWN PER PLAN	65 LF
6	SAWCUT AND REMOVE EXISTING SIDEWALK AS SHOWN PER PLAN	320 SF
7	PROTECT EXISTING BUS STOP AND POSTS IN PLACE	—
8	CONSTRUCT 4" THICK CONCRETE SIDEWALK PER CITY STANDARD PLAN NO. MVSI-115A-0	80 SF
9	ADJUST UTILITY BOXES PER CITY STANDARDS AND UTILITY COMPANY STANDARDS	2 EA
10	CONSTRUCT CONCRETE DRIVEWAY APPROACH AT LOCATION SHOWN PER CITY STANDARD PLAN NO. MVSI-112C-0 W=40', R=12'	860 SF
11	MATCH TO JOIN WITH EXIST ELEVATION	—
12	CONSTRUCT CONCRETE PAVEMENT WITH CONTROL JOINTS PER PLAN AND DETAIL NO. 1 AS SHOWN ON C-4	43,280 SF
13	CONSTRUCT 4" CONCRETE WALKWAY PER ARCHITECTURAL PLANS.	—
14	CONSTRUCT 6" CONCRETE CURB PER CITY STANDARD NO. MVSI-121A-0	—
* 15	PROVIDE 1' WIDE CURB OPENING FOR OVERFLOW DRAINAGE AS SHOWN ON DETAIL NO. 2 ON SHEET C-4	1 EA
16	INSTALL 5'Lx2'Wx0.5'D METAL DRAIN UNDER WALKWAY	1 EA
17	GRADE AREA TO DRAIN MIN. 2% SLOPE	—
* 18	LANDSCAPE AREA AS SHOWN	LS
19	TRASH ENCLOSURE PER SITE PLAN	—
20	INSTALL DETECTABLE WARNING STRIP AT LOCATIONS SHOWN. ARMOR-TILE OR EQUAL, 4'W X 3'L MIN.	6 EA
21	CONSTRUCT HC RAMP AS SHOWN PER APWA STD. PLAN 111-5, CASE A, TYPE 2.	1 EA
22	ADJUST SEWER MANHOLE TO GRADE PER EMWD STANDARD	1 EA
23	CONSTRUCT BIOFILTRATION BASIN with 24" X 24" DROP INLET CATCH BASIN AS SHOWN PER PLAN AND DETAIL NO. 4 ON SHEET C-4	1 EA
24	P.O.C. 6" SEWER LATERAL CONNECTION PER EMWD REQUIREMENTS	1 EA
25	P.O.C. MIN. 3" WATER SERVICE CONNECTION PER EMWD REQUIREMENTS	1 EA
* 26	CONSTRUCT 5' X 6' X 15'L ROCK RIP RAP AS SHOWN PER PLAN AND DETAIL NO. 3 ON SHEET C-4	1 EA
27	CONSTRUCT SOUND WALL PER ARCH AND STRUCTURAL PLANS	60 LF
28	CONSTRUCT ROCK RIP-RAP AT PIPES ENTRANCE AS SHOWN PER DETAIL NO. 5 ON SHEET C-4	1 EA
* 29	PLACE 6"-8" DIAMETER ROCKS AT BIOFILTER SLOPE AREA FOR RUNOFF INFLOW EROSION CONTROL, MIN. 2' X 2' AREA	1 EA
30	PROTECT EXISTING STREET LIGHT POLE IN PLACE	1 EA

* LID/BMP USED

PEN16-0113 (PREV. PA16-0077)

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EMAIL: CTRANS@VERIZON.NET

REGISTERED PROFESSIONAL ENGINEER DAVID M. ALM NO. 32779 EXP. 06/30/2018 STATE OF CIVIL CALIFORNIA

revision	date

printing date

project

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT
RIVERSIDE COUNTY, CA
APN: 292-160-023-9

owner

SH-60-AT HEACOCK STREET, LLC
C/O P&N CONSTRUCTION
8730 WILSHIRE BLVD
STE 202
BEVERLY HILLS, CA 90211
TEL : (310) 433-6815
FAX : (310) 657-7962
EMAIL: BIJAN@3MIL.COM

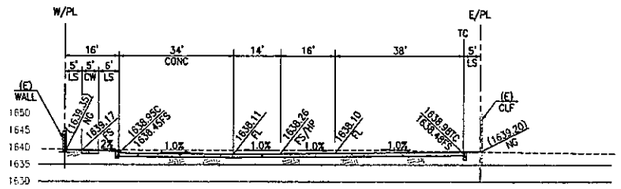
project no.	450-269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

sheet title

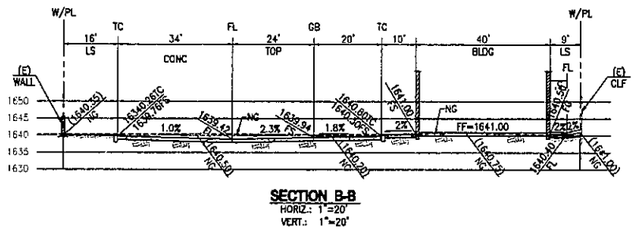
PRELIMINARY GRADING PLAN

sheet no.

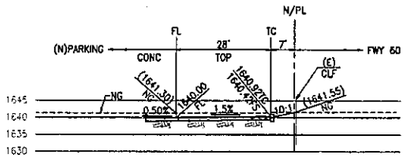
C-3



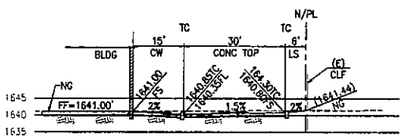
SECTION A-A
HORIZ.: 1"=20'
VERT.: 1"=20'



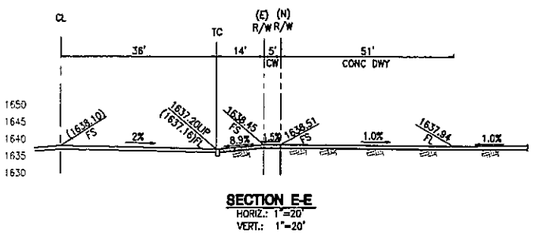
SECTION B-B
HORIZ.: 1"=20'
VERT.: 1"=20'



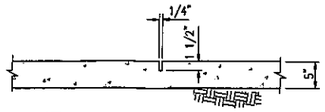
SECTION C-C
HORIZ.: 1"=20'
VERT.: 1"=20'



SECTION D-D
HORIZ.: 1"=20'
VERT.: 1"=20'

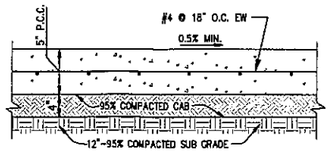


SECTION E-E
HORIZ.: 1"=20'
VERT.: 1"=20'

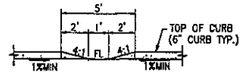


NOTE:
WEAKENED PLAN JOINTS IN CONCRETE PAVEMENT SHALL BE SAWED JOINTS AND SHALL HAVE 10' MAXIMUM SPACING.

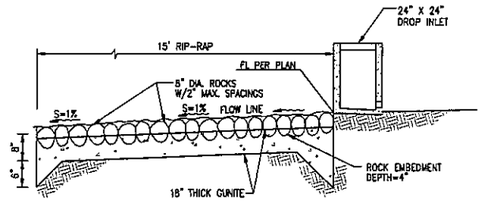
CONTROL JOINT OR CONTRACTION JOINT
(TRANSVERSE OR LONGITUDINAL)
TYPICAL DETAIL



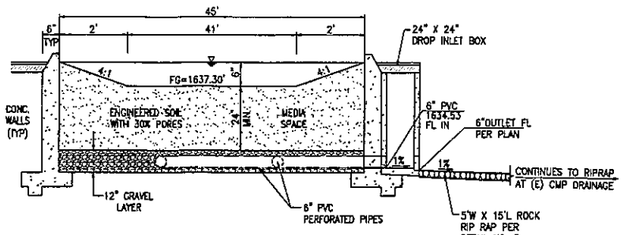
CONCRETE PAVEMENT DETAIL 1
N.T.S.



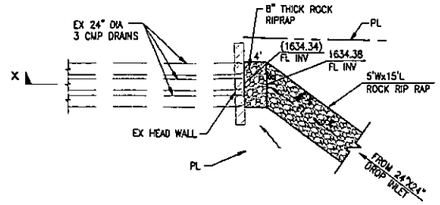
CURB OPENING OUTLET - DETAIL 2
NOT TO SCALE



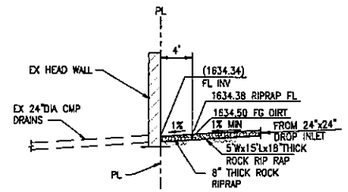
5' WIDE ROCK RIP-RAP
DETAIL NO. 3
N.T.S.



BIOFILTRATION BASIN - DETAIL 4
NOT TO SCALE



PLAN
SCALE: 1"=1'



SECTION X-X
SCALE: 1"=1'

RIP-RAP AT PIPE ENTRANCE - DETAIL 5

SCALE AS SHOWN

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revision	date

printing date

project

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT
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EMAIL: BIJAN@3MIL.COM

project no.	450-269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

sheet title

SECTIONS & DETAILS

sheet no.

C-4

PEN16-0113 (PREV. PA16-0077)

Exhibits

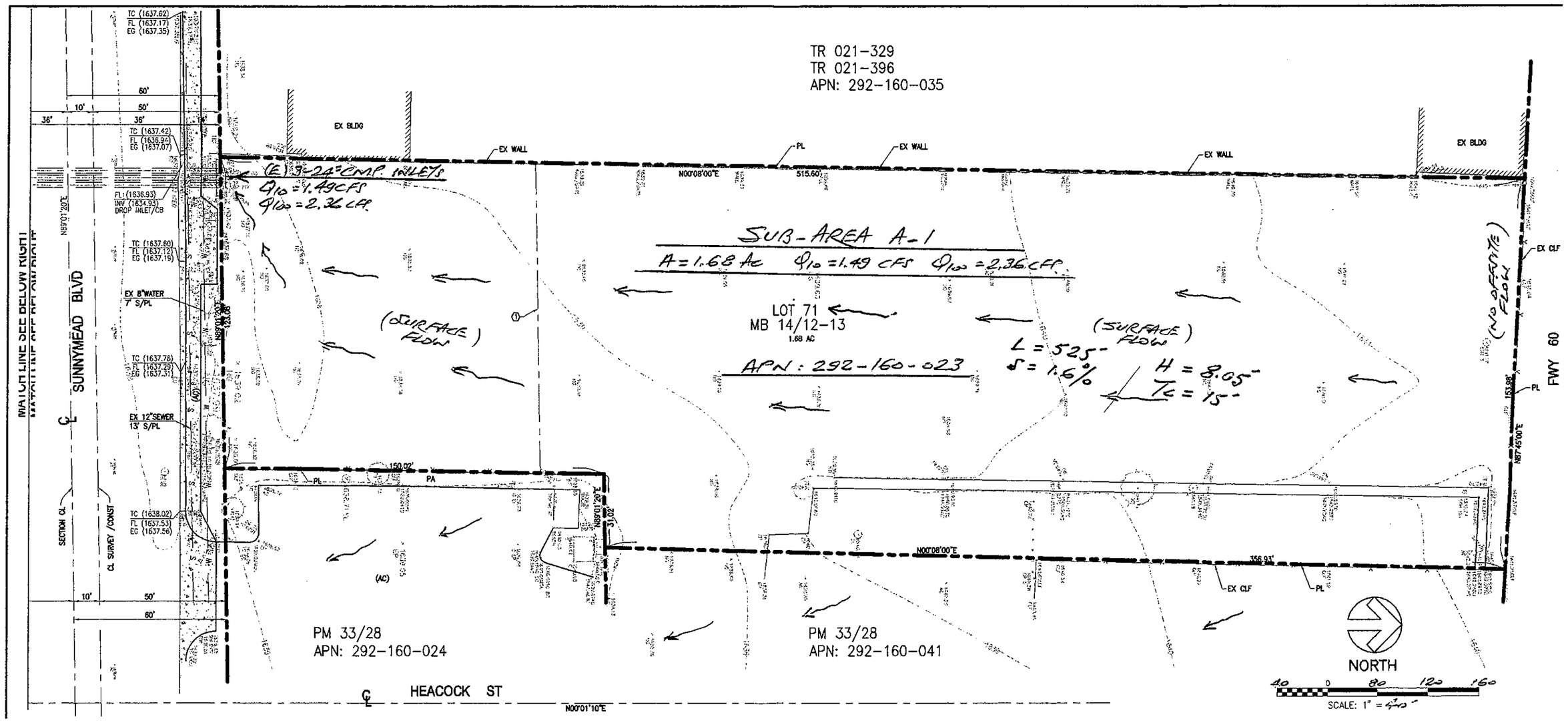


EXHIBIT - A
EXISTING SITE

27/2

CAR WASH SITE
PEN16-0113 (PAR-0077)

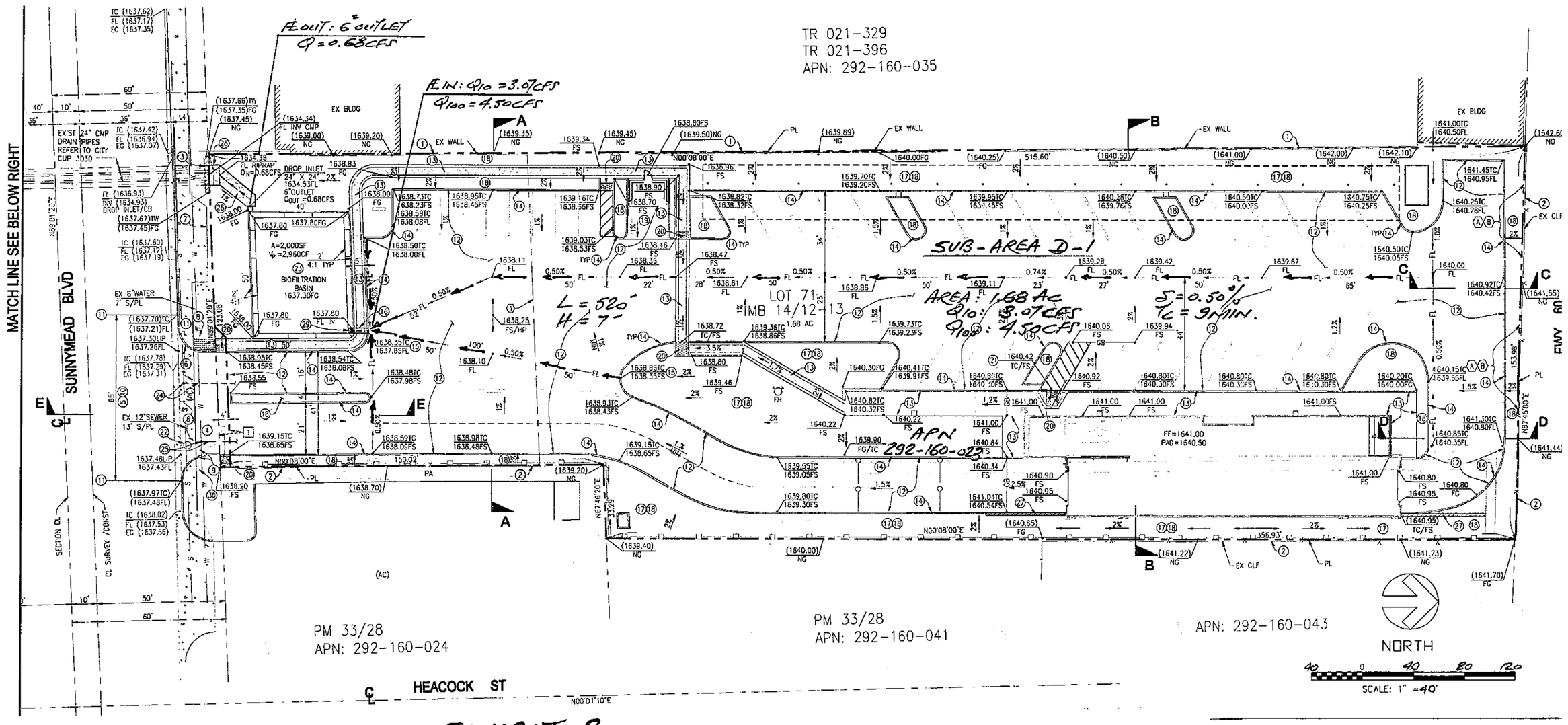


EXHIBIT-B

IMPROVEMENT SITE PLAN

CAR WASH SITE

PEN16-0113 (PA16-0077)

28/2

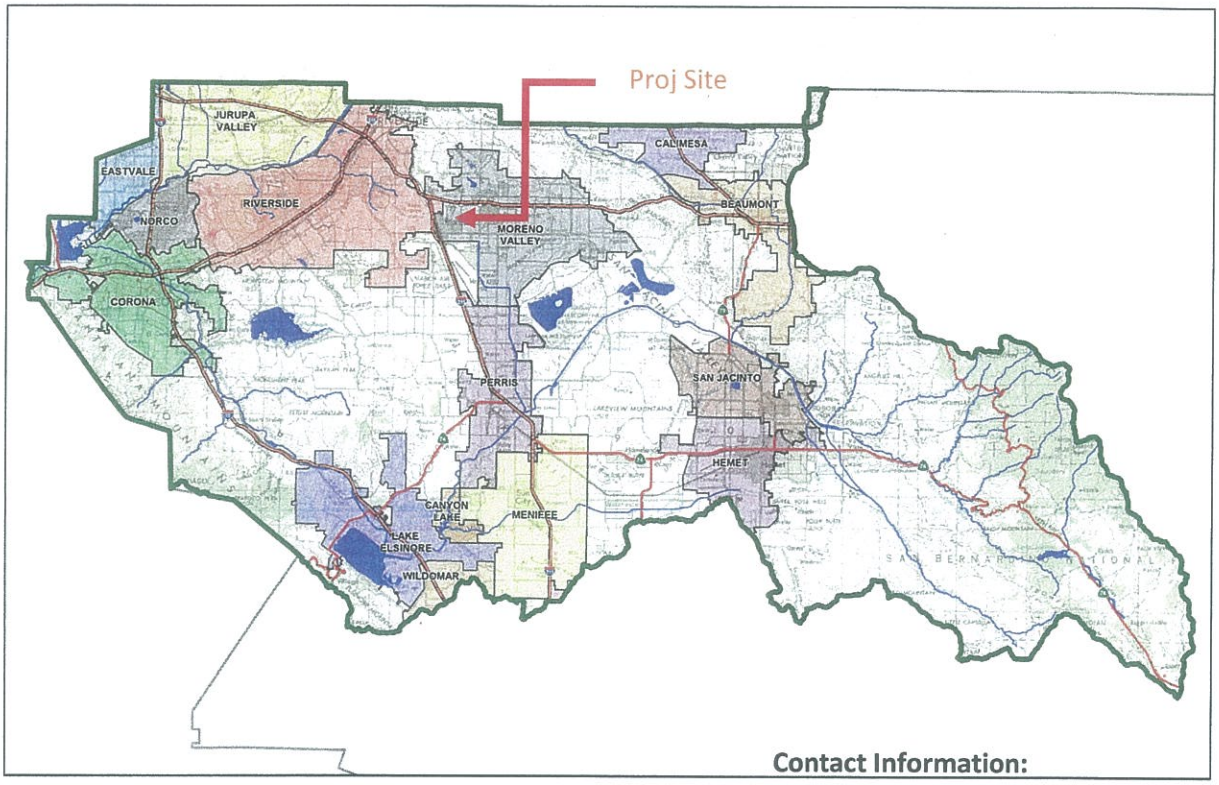
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Proposed Car wash Site Improvement

Development No: PEN16-0113(PA16-0077)

Design Review/Case No: PEN16-0113(PA16-0077)



Contact Information:

Prepared for: Sh-60 at Heacock Street, LLC
C/) Quanah West Management, LLC.
Eric Chess Bronk
Tel: (714)267-2552

☒ **Preliminary**
☐ **Final**

Original Date Prepared: 03-20-2017

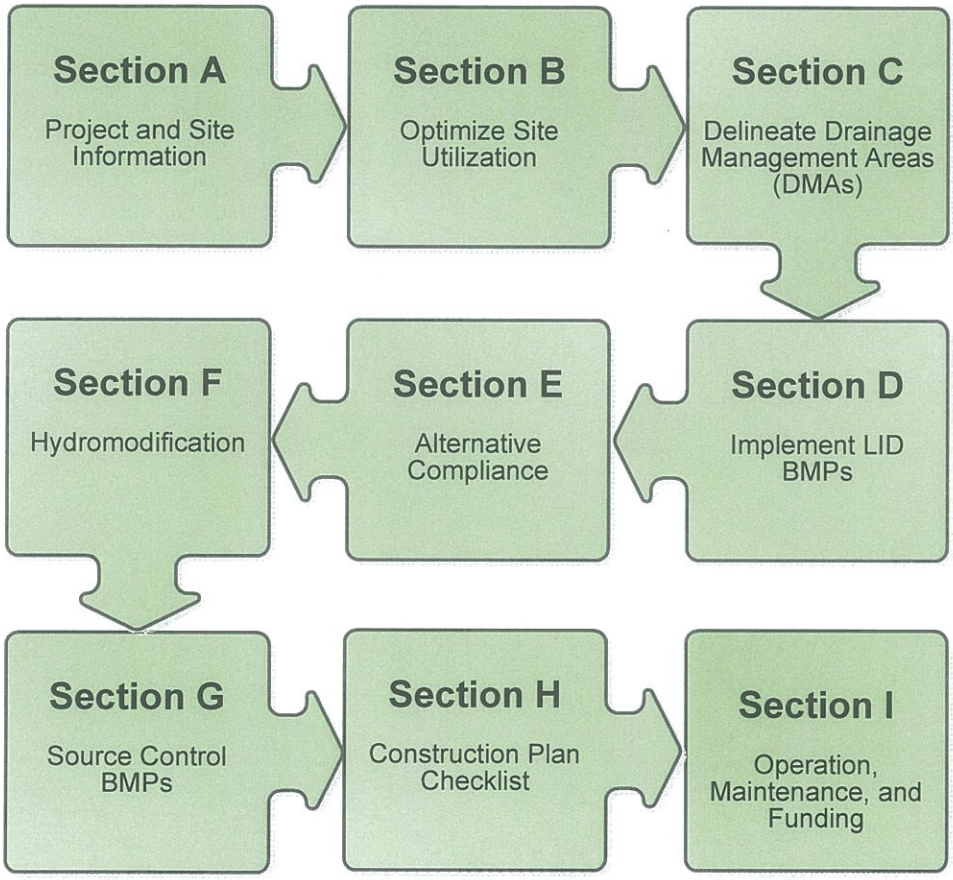
Revision Date(s): 07-10-2017, 10-10-2017, 11-20-2017
11-30-2017

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

Prepared by: Javaid M. Aslam, P.E
Principal In-Charge
Civil Trans Inc.
732 N. Diamond Bar Blvd.
Ste.128, Diamond Bar, CA 91765
Tel: (909)396-1131

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 SH-60 at Heacock Street, LLC. by Javaid M. Aslam, P.E./Civil Trans Inc. for the Proposed Car Wash Site Improvement Project.

This WQMP is intended to comply with the requirements of City of Moreno Valley for Ordinance No. 8.27 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 (Municipal code 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

11-22-2017
Date

BEHZAD BANDARI
Owner's Printed Name

MANAGING MEMBER
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

11/30/2017
Date

Javaid M. Aslam, P.E.
Preparer's Printed Name

Principal/Civil Trans Inc.
Preparer's Title/Position

REGISTERED PROFESSIONAL ENGINEER
JAVAID M. ASLAM
No. 32779
Exp. 06/30/18
CIVIL
STATE OF CALIFORNIA

Preparer's Licensure:

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On November 22, 2017 before me, Elizabeth Gonzalez-Aguirre, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Beinzad Bandari
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

ELIZABETH GONZALEZ-AGUIRRE
Commission # 2072347
Notary Public - California
Los Angeles County
My Comm. Expires Jun 22, 2018

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: _____ Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name:	Signer's Name:
☐ Corporate Officer — Title(s):	☐ Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other:	☐ Other:
Signer Is Representing:	Signer Is Representing:

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On November 22, 2017 before me, Elizabeth Gonzalez-Aguirre, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Behzad Bandari,
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

ELIZABETH GONZALEZ-AGUIRRE
Commission # 2072347
Notary Public - California
Los Angeles County
My Comm. Expires Jun 22, 2018

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

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☐ Corporate Officer — Title(s):	☐ Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other:	☐ Other:
Signer Is Representing:	Signer Is Representing:

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List of Appendices

Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Commercial
Planning Area:	SP 204
Community Name:	N/A
Development Name:	Car Wash Site Improvement
PROJECT LOCATION	
Latitude & Longitude (DMS): 33.943922; -177.24461	
Project Watershed and Sub-Watershed: Sunnymead, ADP Line G-2, Perris Valley, Storm Drain, San Jacinto reaches 2 & 3, Santa Ana River basin	
APN(s): 292-160-023-9	
Map Book and Page No.: MB 014/012-013	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial
Proposed or Potential SIC Code(s)	7542
Area of Impervious Project Footprint (SF)	56,107 (BLDG)
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	56,107
Does the project consist of offsite road improvements?	☐ Y ☒ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the project limits (SF)	120
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	Type B
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
CMP Drain-Cup 3030	N/A	N/A	N/A
Lines G1, G2	N/A	N/A	N/A
Line G	N/A	N/A	N/A
Line B	N/A	N/A	N/A
Line A	N/A	N/A	N/A
Perris Valley Storm Drain	N/A	N/A	N/A
San Jacinto River Reach 3	None	AGR, GWR, MUN, REC1 ,REC 2, WARM, WILD	N/A
San Jacinto River Reach 2, Canyon Lake	Nutrients, Pathogens	AGR, GWR, MUN REC1 ,REC 2, WARM, WILD	N/A

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	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
City Fire Dept. Approval	☒ Y	☐ N
City Building and Safety Grading Permit	☒ Y	☐ 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?

Yes, Existing site survey was used to identify existing drainage pattern and the proposed improvements were designed by keeping the same flow patterns.

Did you identify and protect existing vegetation? If so, how? If not, why?

No, existing site is undeveloped land with no existing vegetation.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes, the site natural infiltration capacity was obtained from field percolation tests, 0.14 to 0.24 inches/hr. which is less than 1.6inches/hr. as required. So DMAs mitigation by infiltration cannot be used.

Did you identify and minimize impervious area? If so, how? If not, why?

The site is a carwash facility requiring impervious driveway and parking areas, so maximum available pervious landscape areas are provided as best as possible.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes, wherever possible pervious landscape areas are utilized to disperse runoff.

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
A/1	Ornamental Landscaping	4,600	A
A/2	Ornamental Landscaping	5,430	A
A/3	Ornamental Landscaping	750	A
A/4	Ornamental Landscaping	1,590	A
A/5	Ornamental Landscaping	4,178	A
D/1	Roof	5,490	D
D/2	Concrete	2,400	D
D/3	Mixed Surface Types	4,295	D
D/4	Concrete	24,210	D
D/5	Concrete	17,232	D
D/6	Mixed Surface Types	2,480	D

[1]Reference 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)
A/1	4,600	LANDSCAPE	N/A
A/2	5,430	LANDSCAPE	N/A
A/3	7S0	LANDSCAPE	N/A
A/4	1,590	LANDSCAPE	N/A
A/5	4,178	LANDSCAPE	N/A

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) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet) [A]	Post-project surface type	Runoff factor [B]	Product [C] = [A] x [B]	DMA name /ID	Area (square feet) [D]	Ratio [C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
D/1: Roof	Bio-Infiltration Basin: LID BMP1
D/2: Concrete	Same
D/3: Mixed Surface Types	Same
D/4: Concrete	Same
D/5: Concrete	Same
D/6: Mixed Surface Types	Same

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 Copermittee 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?		X
If Yes, list affected DMAs:		
...have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
...have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
...have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs:		
...have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
...geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

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 storm water 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.

The total irrigated landscape area: 16,548 SF

Type of Landscaping: 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: 1.29 Acres

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: 1.35 Acres

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)
1.35 Acres	0.38 Acres

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting storm water 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: 10

Project Type: Commercial

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: 1.29 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: 141

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: 182

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).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
182	10

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:

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: N/A

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: N/A

Step 5: Determine if harvesting storm water 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)**
N/A	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 Bio retention and Bio treatment, 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	
D/1	☐	☐	☒	☐	☐
D/2	☐	☐	☒	☐	☐
D/3	☐	☐	☒	☐	☐
D/4	☐	☐	☒	☐	☐
D/5	☐	☐	☒	☐	☐
D/6	☐	☐	☒	☐	☐

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.

Insert narrative description here.

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.3A DCV Calculations for LID BMP 1

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]			
D/1	*5,490*	*Roof*	*1.00*	*0.89*	*4,886.1*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
D/2	*2,400*	*Concrete*	*1.00*	*0.89*	*2,136.0*			
D/3	*4,295*	*Mixed Surface Types*	*0.60*	*0.41*	*1,761.0*			
D/4	*24,210*	*Concrete*	*1.00*	*0.89*	*21,546.9*			
D/5	*17,232*	*Concrete*	*1.00*	*0.89*	*15,336.5*			
D/6	*2,480*	*Mixed Surface Types*	*0.60*	*0.41*	*1,016.8*			
	=56,107 $A_T = \Sigma[A]$				46,683.3 $\Sigma = [D]$	[E] 0.65	$[F] = \frac{[D]x[E]}{12}$ Vbmp = 2,528.7	[G] Vu = 2,960

[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 Copermittee). 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.

List DMAs here.

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
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☐ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft²)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft²)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft²)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☐	☐	☐	☐	☐	☐	☐

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]
N/A	
Total Credit Percentage[1]	

[1]Cannot Exceed 50%

[2]Obtain 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) [A]	Post-Project Surface Type	Effective Impervious Fraction, I_f [B]	DMA Runoff Factor [C]	DMA Area x Runoff Factor [A] x [C]		*Enter BMP Name / Identifier Here*		
N/A						*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 = Σ[A]			Σ= [D]		[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (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 Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A		

[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 Copermittee 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 concentration[1] 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.

HCOC criteria is mitigated by analyzing the pre-development and post-development hydrographs for a 2-year return frequency storm and limiting the post-development site stormwater discharge to a flow rate not more than 110% of the pre-development 2-year peak flow. Hence, HCOC criteria is satisfied by meeting the condition (c) above by limiting post-development discharge to maximum 110% of pre-development discharge for Q-2year peak flow.

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

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)
BMP 1	Bio-Filtration Basin	C-3 and C-4

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:

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

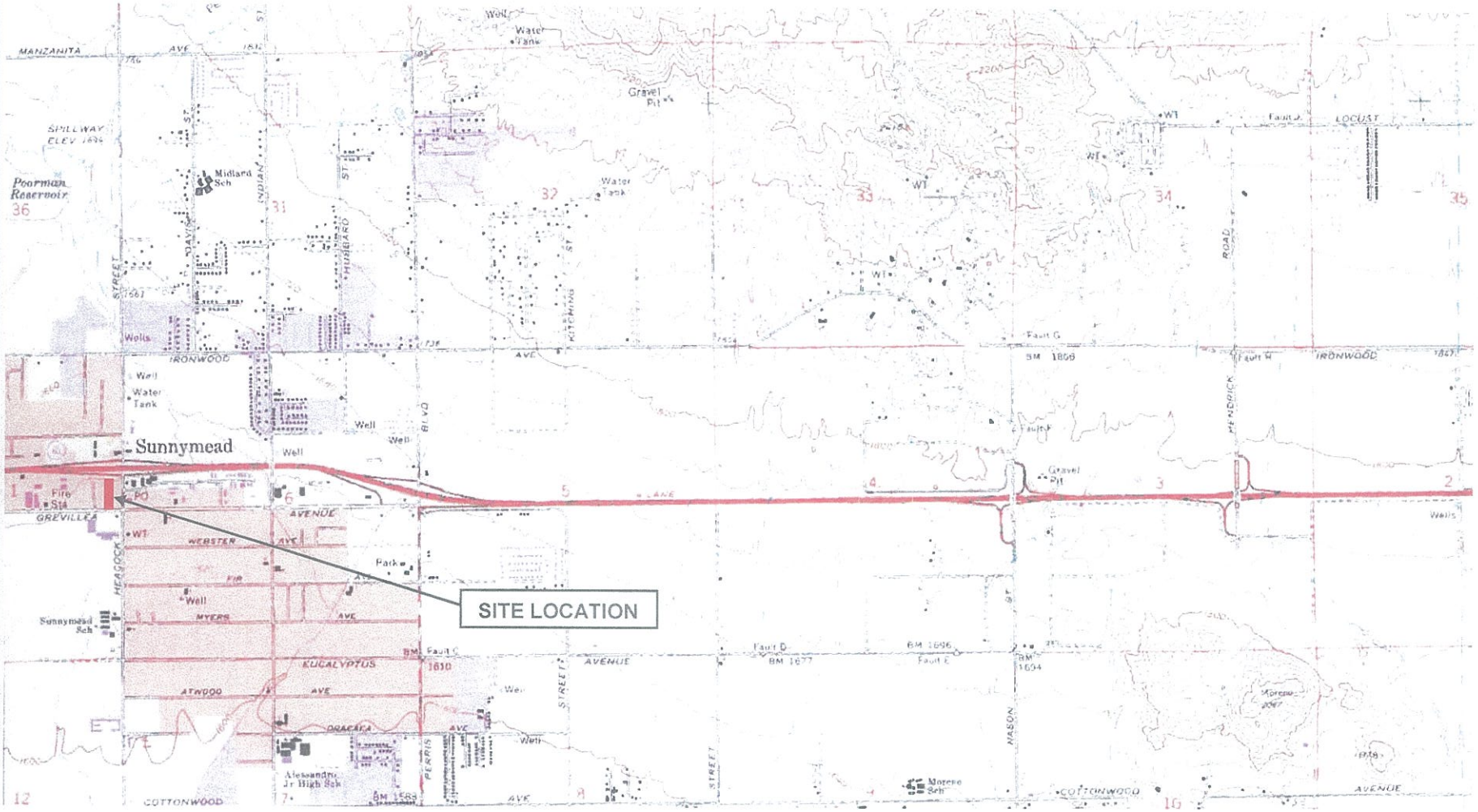
☒ Y ☐ N

Property owner SH-60 at Heacock Street, LLC/Mr. Eric Bronk will be maintaining the proposed BMPs. Business revenues will be allocated to fund the ongoing maintenance and repairs of proposed BMP.

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 Woters Map

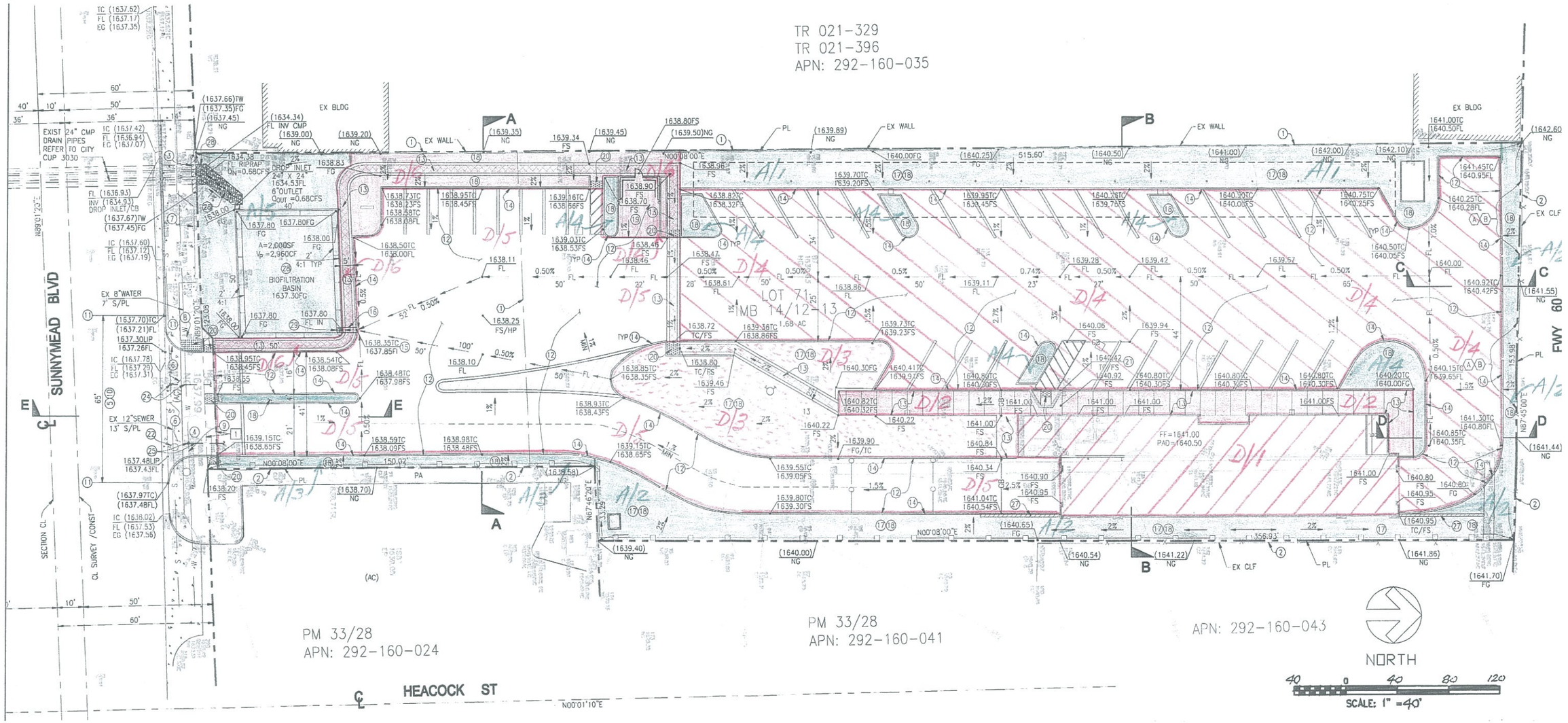


Source Image: U.S. Geological Survey, Sunnymead, Calif. 3117-H-2-TF-024, 1967 (Photorevised 1980)

VICINITY MAP

GEOTECHNICAL ENGINEERING INVESTIGATION
Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, California

SCALE:	DATE:
NOT TO SCALE	10/2016
DRAWN BY:	APPROVED BY:
II	CJ
PROJECT NO.	FIGURE NO.
3-216-1097	1

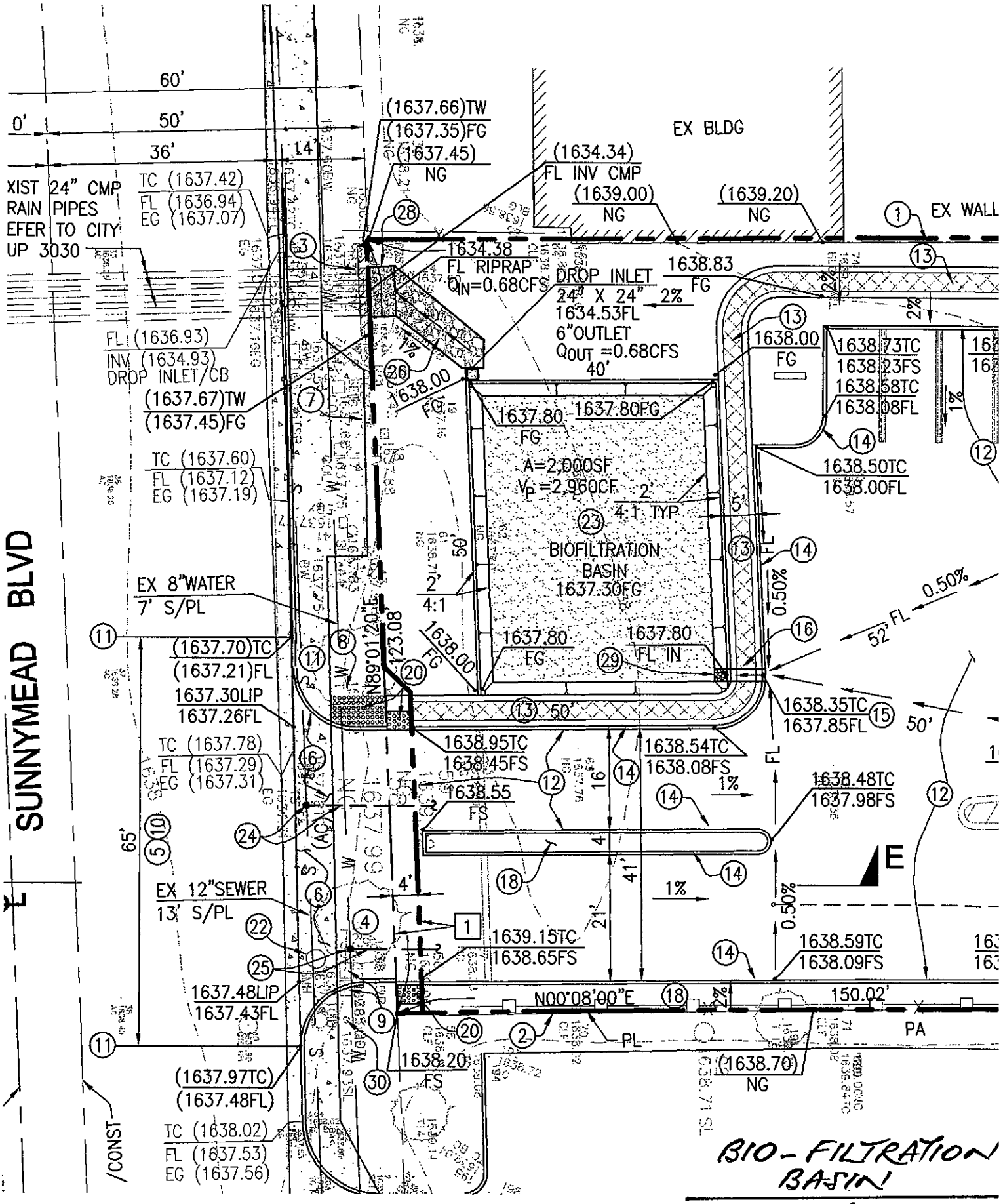


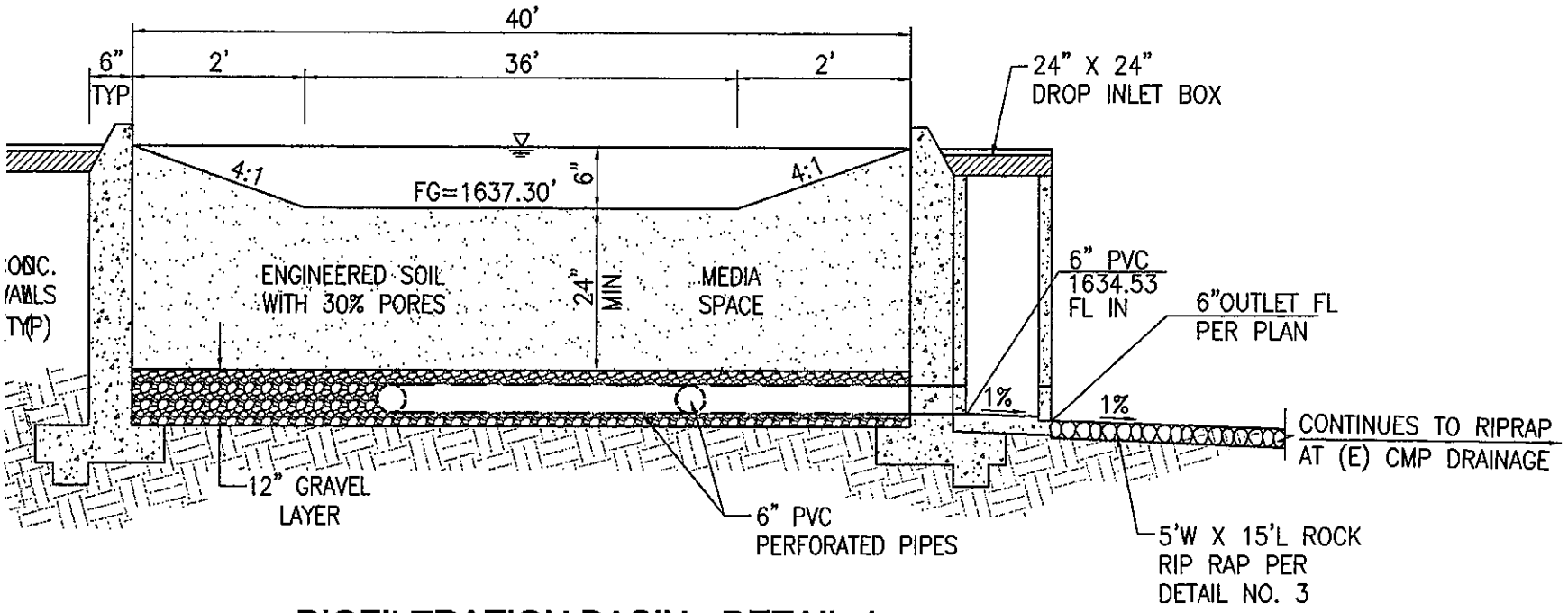
LEGEND

TYPE "A": SELF-TREATING AREAS: 16,548 SF

TYPE "D": AREAS DRAINING TO BMP: 56,107 SF

WQMP SITE
DMA LOCATIONS





BIOFILTRATION BASIN - DETAIL 4

NOT TO SCALE

The graphical and tabular information shown on this document may be derived from a variety of public agency and/or private commercial sources such as Riverside County Transportation and Land Management Agency, Thomas Brothers Mapping, the Stephen P. Teale Data Center, GIS Technology Center, State of California, the United States Geologic Survey and the United States National Atlas. These sources may possess varying levels of accuracy and precision and this product is meant only as a guide to the relative position and scale of the depicted features. This GIS document is in no case to be interpreted as fundamental or decisive for purposes of land surveying, field engineering, plan drafting, code enforcement, land boundary determination and/or land acquisition.

NPDES MUNICIPAL PERMIT
SANTA ANA RIVER WATERSHED
EXHIBIT SA-4
(MORENO VALLEY, PERRIS, CALIMESA, BEAUMONT, SAN JACINTO AREAS)

- CITY MS4 FACILITIES
- COUNTY MS4 FACILITIES
- RCFC&WCD MS4 FACILITIES
- SANTA ANA RIVER WATERSHED BOUNDARY
- BLUE LINE STREAMS
- RIVERSIDE COUNTY BOUNDARY
- INCORPORATED AREAS
- FREEWAYS/HIGHWAYS
- PRIMARY STREETS

N

0 0.5 1 1.5 2 MILES

CREATED: JULY 16, 2014
AUTHOR: MICHAEL PHIPPS

CALIMESA
MORENO VALLEY
BEAUMONT
PERRIS
SAN JACINTO

PROJ SITE
CMP-PIPES
EMWY DRAIN
LINE G
LINE B
LINE B
LINE A
PERRIS VALLEY STORM DRAIN
TO SAN JACINTO RIVER-REACHES 2 AND 3

CASE NO: PEN16-0113

RECEIVING WATERS MAP

Appendix 2: Construction Plans

Grading and Drainage Plans

PRELIMINARY GRADING PLAN
SUNNYMEAD BLVD.
A.P.N. 292-160-023

STANDARD GRADING NOTES

1. ALL WORK SHALL CONFORM TO THE CITY OF MORENO VALLEY GRADING REGULATIONS, THE ADOPTED CALIFORNIA BUILDING CODE, AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES OR STRUCTURES ABOVE OR BELOW GROUND, SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE TO ANY UTILITIES OR STRUCTURES CAUSED BY HIS/HER OPERATION.
3. ADJACENT STREETS ARE TO BE CLEANED DAILY OF ALL DIRT AND DEBRIS THAT ARE THE RESULT OF OPERATION.
4. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
5. HOURS OF OPERATION ARE 7 AM – 6 PM MONDAY–FRIDAY SATURDAYS, BY PRIOR APPOINTMENT ONLY, 7:00 AM–3:00 PM (INDUSTRIAL/COMMERCIAL), 8:00 AM–4:00 PM (RESIDENTIAL). NO WORK ON SUNDAY OR PUBLIC HOLIDAYS WITHOUT PRIOR CITY APPROVAL.
6. THE CITY PUBLIC WORKS DEPARTMENT SHALL BE CONTACTED AT (951) 413–3120 TO SCHEDULE A PRE–GRADING MEETING 48 HOURS PRIOR TO BEGINNING OF GRADING.
7. ALL GRADING SHALL BE COMPLETED UNDER THE SUPERVISION OF A REGISTERED SOILS ENGINEER OF RECORD IN CONFORMANCE WITH RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION BY SALEM ENGINEERING GROUP DATED OCT. 24, 2016 .
8. TWO SETS OF THE FINAL SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF A BUILDING PERMIT. THE SOILS REPORT SHALL REFLECT THE FACT THAT THE COMPACTION HAS BEEN OBTAINED NOT ONLY IN THE BUILDING PAD LOCATIONS, BUT IN THE REMAINDER OF THE SITE, INCLUDING THE SLOPES. FINAL SOILS GRADING CERTIFICATION SHALL BE SUBMITTED BY THE SOILS ENGINEER OF RECORD THAT THE FINAL GRADING CONFORMS TO APPENDIX J OF THE CALIFORNIA BUILDING CODE (CBC) AND THE APPROVED GRADING PLAN.
9. ALL SLOPES SHALL BE A MAXIMUM OF 2:1, CUT OR FILL, UNLESS OTHERWISE RECOMMENDED BY REGISTERED SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER.
10. ALL PADS AND SWALES SHALL SLOPE A MINIMUM OF 1% TO STREETS OR DRIVES.
11. ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY THE SOILS ENGINEER OF RECORD TO NOT LESS THAN 90% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557. THE TOP 1.5 FT. OF SUBGRADE BELOW THE STREET PAVEMENT STRUCTURAL SECTION SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
12. SEPARATE PERMITS SHALL BE REQUIRED FOR ANY IMPROVEMENT WORK WITHIN THE PUBLIC RIGHT–OF–WAY.
13. CUT SLOPES GREATER THAN 5 FEET IN VERTICAL HEIGHT, AND FILL SLOPES GREATER THAN 3 FEET IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED GROUND COVER OR OTHER APPROVED SLOPE EROSION CONTROL METHOD TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY IN ACCORDANCE WITH THE GRADING REGULATIONS.
14. SEPARATE PERMITS FROM THE BUILDING DEPARTMENT SHALL BE REQUIRED FOR ALL WALLS AND FENCES.
15. ALL SLOPES ADJACENT TO THE PUBLIC RIGHT–OF–WAY SHALL BE SET BACK 2 FEET IF HEIGHT IS LESS THAN 10 FEET, AND 3 FEET IF HEIGHT IS GREATER THAN 10 FEET.
16. DAMAGED OR ALTERED PUBLIC IMPROVEMENTS SHALL BE REPAIRED OR REPLACED AS REQUIRED BY THE CITY ENGINEER.
17. AN "AS–BUILT" GRADING PLAN SHALL BE SUBMITTED AT THE COMPLETION OF WORK, AND PRIOR TO THE ISSUANCE OF THE OCCUPANCY PERMIT.
18. CERTIFICATION BY THE RCE OF RECORD THAT THE ROUGH GRADING SOIL COMPACTION HAS BEEN COMPLETED PER ITEMS 7, 8 AND 11 AND THAT SITE CONFORMS TO THIS PLAN AS TO LINE AND GRADE SHALL BE REQUIRED PRIOR TO ISSUANCE OF BUILDING PERMIT.
19. THE RCE OF RECORD SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE R.C.E. OF RECORD SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY ENGINEER.
20. ALL IMPORTED SOIL SHALL HAVE A CERTIFICATE GIVEN TO THE CITY ENGINEER STATING THAT THE SOIL IS FREE FROM CONTAMINANTS BEFORE SOIL IS UNLOADED.

I HEREBY STATE THAT THIS PLAN WAS PREPARED UNDER MY SUPERVISION AND THAT IT CONFORMS TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE (C.B.C.) AS MODIFIED BY CITY OF MORENO VALLEY ORDINANCES, THE INTERIM GUIDELINES, AND THE PRELIMINARY SOILS REPORT PREPARED FOR THIS PROJECT.

11-10-2017
JAVAD M. ASLAN — DATE
R.C.E. #32779 EXPIRES 06.30.2018

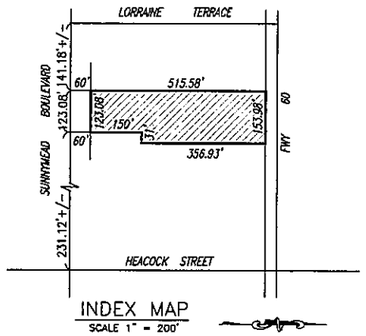
DECLARATION OF ENGINEER OF RECORD

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARD AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY THE CITY OF MORENO VALLEY IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THE PLANS COMPLY WITH CITY PROCEDURES, APPLICABLE POLICIES AND ORDINANCES. THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT, THEREFORE, RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS. AS ENGINEER OF RECORD (E.O.R.), I AGREE TO INDEMNIFY AND HOLD THE CITY OF MORENO VALLEY, THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY (RDA), AND THE MORENO VALLEY COMMUNITY SERVICE DISTRICT (CSD), ITS OFFICERS, AGENTS AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY OF CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD. I HAVE READ AND INFORMED THE PROJECT APPLICANT/DEVELOPER THAT APPROVAL OF THESE PLANS DO NOT RELIEVE THEM FROM THE REQUIREMENTS OF THE CONDITIONS OF APPROVAL (ATTACHED HEREIN OR IN OTHER APPROVED IMPROVEMENT PLANS).

I ALSO HEREBY DECLARE THAT I HAVE COMPARED THESE PLANS WITH ALL APPLICABLE ADA TITLE II AND TITLE 24 REQUIREMENTS FOR DISABILITY ACCESS FOR THIS PROJECT, AND THESE PLANS ARE IN FULL COMPLIANCE WITH THOSE REQUIREMENTS

ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OF STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.



INDEX MAP
SCALE 1" = 200'

LEGEND

	DECORATIVE PAVING
	CONCRETE SURFACE
	BLOCK WALL
	CHAIN LINK FENCE
	PROPERTY LINE
	PARKING EASEMENT LINE
	TOP OF CURB
	ADJACENT LOT LINE
	CENTER LINE
	FLOW LINE
PA	PLANTER AREA
	EXISTING TREE
(0.0)	EXISTING ELEVATIONS
0.0	NEW ELEVATIONS
TP	TOP OF PAVEMENT
TC	TOP OF CURB
FL	FLOW LINE
CL	CENTER LINE
BW	BACK OF WALK
TW	TOP OF WALL
FS	FINISHED SURFACE
FF	FINISHED FLOOR
TG	TOP OF GRATE
WV	WATER VALVE
SMH	SEWER MANHOLE
00	EXISTING CONTOURS
GS	GAS METER
WM	WATER METER
FH	FIRE HYDRANT
TF	TOP OF FOOTING
SD	STORM DRAIN
TG	TOP OF GRATE
S	SEWER MAIN
W	WATER MAIN
ST	STREET
INV	INVERT
LT	LIGHT
BLK	BLOCK
PP	POWER POLE
CLF	CHAINLINK FENCE
CB	CATCH BASIN
MH	MAN HOLE
EX	EXISTING
FG	FINISH GRADE
NG	NATURAL GROUND
HP	HIGH POINT
TYP	TYPICAL
S	SEWER
DWY	DRIVEWAY
LID	LOW IMPACT DEVELOPMENT
BMP	BEST MANAGEMENT PRACTICE
	CENTER LINE
PL	PROPERTY LINE
RW	RIGHT OF WAY

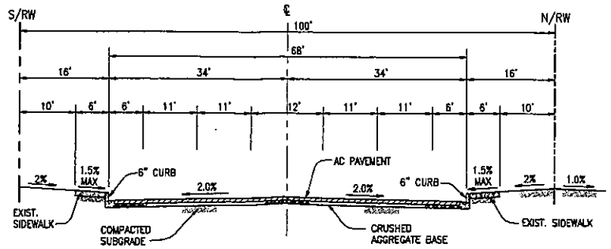
CONSTRUCTION NOTES

		QUANTITY
1	PROTECT EXISTING WALL IN PLACE	—
2	PROTECT EXISTING CHAINLINK FENCE IN PLACE	—
3	PROTECT EXISTING DRAIN SYSTEM WALL & PIPES IN PLACE	—
4	REMOVE EXISTING TREE PER CITY GUIDELINES	1 EA
5	SAWCUT AND REMOVE EXISTING CURB AND GUTTER AS SHOWN PER PLAN	65 LF
6	SAWCUT AND REMOVE EXISTING SIDEWALK AS SHOWN PER PLAN	320 SF
7	PROTECT EXISTING BUS STOP AND POSTS IN PLACE	—
8	CONSTRUCT 4" THICK CONCRETE SIDEWALK PER CITY STANDARD PLAN NO. MVSI-115A-0	80 SF
9	ADJUST UTILITY BOXES PER CITY STANDARDS AND UTILITY COMPANY STANDARDS	2 EA
10	CONSTRUCT CONCRETE DRIVEWAY APPROACH AT LOCATION SHOWN PER CITY STANDARD PLAN NO. MVSI-112C-0 W=40', R=12'	850 SF
11	MATCH TO JOIN WITH EXIST ELEVATION	—
12	CONSTRUCT CONCRETE PAVEMENT WITH CONTROL JOINTS PER PLAN AND DETAIL NO. 1 AS SHOWN ON SHEET C-4	43,280 SF
13	CONSTRUCT 4" CONCRETE WALKWAY PER ARCHITECTURAL PLANS.	—
14	CONSTRUCT 6" CONCRETE CURB PER CITY STANDARD NO. MVSI-121A-0	—
* 15	PROVIDE 1' WIDE CURB OPENING FOR OVERFLOW DRAINAGE AS SHOWN ON DETAIL NO. 2 ON SHEET C-4	1 EA
16	INSTALL 5'Lx2'Wx0.5'D METAL DRAIN UNDER WALKWAY	1 EA
17	GRADE AREA TO DRAIN MIN. 2% SLOPE	—
* 18	LANDSCAPE AREA AS SHOWN	LS
19	TRASH ENCLOSURE PER SITE PLAN	—
20	INSTALL DETECTABLE WARNING STRIP AT LOCATIONS SHOWN. ARMOR-TILE OR EQUAL, 4'W X 3'L MIN.	6 EA
21	CONSTRUCT HC RAMP AS SHOWN PER APWA STD. PLAN 111-5, CASE A, TYPE 2.	1 EA
22	ADJUST SEWER MANHOLE TO GRADE PER EMWD STANDARD	1 EA
23	CONSTRUCT BIOFILTRATION BASIN WITH 24" X 24" DROP INLET CATCH BASIN AS SHOWN PER PLAN AND DETAIL NO. 4 ON SHEET C-4	1 EA
24	P.O.C. 6" SEWER LATERAL CONNECTION PER EMWD REQUIREMENTS	1 EA
25	P.O.C. MIN. 3" WATER SERVICE CONNECTION PER EMWD REQUIREMENTS	1 EA
* 26	CONSTRUCT 5' X 6' X 15'L ROCK RIP RAP AS SHOWN PER PLAN AND DETAIL NO. 3 ON SHEET C-4	1 EA
27	CONSTRUCT SOUND WALL PER ARCH AND STRUCTURAL PLANS	60 LF
28	CONSTRUCT ROCK RIP-RAP AT PIPES ENTRANCE AS SHOWN PER DETAIL NO. 5 ON SHEET C-4	1 EA
* 29	PLACE 6"-8" DIAMETER ROCKS AT BIOFILTER SLOPE AREA FOR RUNOFF INFLOW EROSION CONTROL, MIN. 2' X 2' AREA	1 EA
30	PROTECT EXISTING STREET LIGHT POLE IN PLACE	1 EA

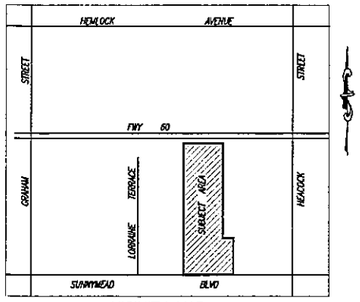
* LID/BMP USED

STANDARD GENERAL IMPROVEMENT NOTES:

1. ALL WORK CALLED FOR ON THE PLANS SHALL BE IN COMPLIANCE WITH CURRENT CITY STANDARD PLANS ADOPTED BY THE CITY COUNCIL.
2. A CONSTRUCTION PERMIT MUST BE OBTAINED FROM THE LAND DEVELOPMENT DIVISION COUNTER BY THE CONTRACTOR PRIOR TO GRADING AND/OR CONSTRUCTION WORK OF ANY TYPE WITHIN THE PUBLIC RIGHT-OF-WAY.
3. AN ENCROACHMENT PERMIT IS REQUIRED IN ALL CASES WHERE WORK WILL INTERFERE WITH EITHER VEHICULAR OR PEDESTRIAN TRAFFIC.
4. CITY INSPECTION OF THE WORK CALLED FOR ON THE PLANS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR AND/OR THE DEVELOPER OF THEIR OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH THE PLANS.
5. ANY ALTERATIONS OR VARIANCES FROM THE PLANS, EXCEPT MINOR ADJUSTMENTS IN THE FIELD TO MEET EXISTING CONDITIONS, SHALL BE REQUESTED IN WRITING AND MAY NOT BE INSTITUTED UNTIL APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE ACTING SPECIFICALLY ON HIS/HER INSTRUCTIONS.
6. THE GRADING AND/OR IMPROVEMENT PLANS ARE APPROVED FOR A PERIOD OF TWO (2) YEARS FROM THE DATE SIGNED BY THE CITY ENGINEER. AFTER THE TWO (2) YEAR PERIOD HAS LAPSED, THE ENGINEER OF RECORD MAY BE REQUIRED TO SUBMIT AND PROCESS FOR THE CITY ENGINEER APPROVAL, UPDATED PLANS THAT COMPLY WITH THE MOST CURRENT CITY STANDARDS, PRACTICES AND POLICIES.
7. ALL ELEVATIONS SHOWN ON THE PLAN ARE ESTABLISHED BY LOCAL BENCH MARK. SURVEY MONUMENTS SHALL BE PROTECTED IN PLACE.
8. QUANTITIES AS SHOWN ON THE PLAN ARE ESTIMATED AND THE CONTRACTOR IS ADVISED THAT ALL FINAL QUANTITIES OF MATERIAL AND WORK IN PLACE MAYBE SOMEWHAT GREATER OR LESS THAN THOSE INDICATED ON THE PLANS.
9. CONCRETE GUTTERS, ALLEY APPROACHES, DRIVEWAYS AND OTHER CONCRETE ITEMS SUBJECT TO VEHICULAR TRAFFIC SHALL BE BARRICADED WITH NO VEHICULAR TRAFFIC PERMITTED FOR A PERIOD NO LESS THAN SEVEN DAYS FOLLOWING THE PLACEMENT OF SAID CONCRETE ITEM(S), WHEN THE GENERAL PROVISIONS CALL FOR THE USE OF SAID CONCRETE ITEM(S) FOR VEHICULAR TRAFFIC EARLIER THAN THE SEVEN DAY FOR CONVENIENCE OF OPERATION OR WHEN THE CONTRACTOR SO DESIRES. CONCRETE CONTAINING EIGHT SACKS OF CEMENT PER CUBIC YARD SHALL BE USED UNDER THE DIRECTION OF THE CITY ENGINEER TO ALLOW TRAFFIC AFTER 72 HOURS OF PLACEMENT OF CONCRETE.
10. IRRIGATION LINE WITHIN ANY CITY STREET SHALL HAVE A THIRTY INCH MINIMUM COVER FROM FINISH SURFACE UNLESS SAID IRRIGATION LINE IS ENCASED IN CONCRETE OR BEDDED IN A SPECIAL CONCRETE CRADLE.
11. THE CONTRACTOR SHALL OPERATE IN A MANNER COMPLIANT WITH ALL APPLICABLE SECTIONS OF THE MUNICIPAL CODE AND COMPLIANT WITH ALL APPLICABLE CITY COUNCIL RESOLUTIONS.
12. THE LOCATION OF UNDERGROUND UTILITY OR IRRIGATION LINES AS SHOWN ON THE PLANS, IS APPROXIMATE, AND SINCE THE ACTUAL LOCATION MAY BE SOMEWHAT DIFFERENT FROM THAT SHOWN, THE CONTRACTOR IS REQUIRED TO CONTACT THE INTERESTED UTILITY OR WATER COMPANY BEFORE EXCAVATING IN THE VICINITY OF ANY SUCH LINES.
13. PARKWAY TREES INSTALLED BY THE DEVELOPER SHALL BE PLANTED AND MAINTAINED IN COMPLIANCE WITH THE APPROPRIATE CITY STANDARD.
14. ALL STREET NAME AND TRAFFIC REGULATORY SIGNS INDICATED ON THE PLANS WILL BE INSTALLED BY THE DEVELOPER IN ACCORDANCE WITH THE APPROPRIATE CITY STANDARDS.
15. IF THE STREETS LIGHTS INDICATED ON THE PLANS ARE SERVICED BY SOUTHERN CALIFORNIA EDISON (SCE), THE STREET LIGHTS SHALL BE INSTALLED BY SCE. IF THE STREET LIGHTS INDICATED ON THE PLANS ARE SERVICED BY MORENO VALLEY UTILITY (MVU), THE STREET LIGHTS SHALL BE INSTALLED BY THE DEVELOPER. THE DEVELOPER SHALL WORK DIRECTLY WITH THE CORRESPONDING UTILITY PURVEYOR WHEN THE LIGHTS ARE TO BE SERVED FROM AN UNDERGROUND SYSTEM.
16. AN APPROVED WEED KILLER SHALL BE APPLIED TO THE PREPARED BASE PRIOR TO ASPHALT PAVING IN ALL AREAS WHERE THERE IS ANY EVIDENCE OF HUMUS OR ORGANIC MATERIAL PRESENT IN THE BASE (EITHER NATIVE OR IMPORTED) MATERIAL. ALL WEED KILLERS SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
17. PROVISIONS SHALL BE MADE BY THE CONTRACTOR FOR CONTRIBUTORY DRAINAGE AT ALL TIMES.
18. WHEN APPLICABLE, ALL ANTI-GRAFFITI COATING SHALL BE NITROCEM HI-BUILD GRAFFITI GLAZED COATING FOR CONCRETE BLOCK OR AN EQUAL APPROVED BY THE CITY ENGINEER.
19. HOURS OF OPERATION ARE 7:00 AM – 7:00 PM MONDAY – FRIDAY, SATURDAY 8:00 AM – 4:00 PM. NO WORK ON SUNDAY OR PUBLIC HOLIDAYS WITHOUT PRIOR CITY APPROVAL.



SUNNYMEAD BLVD. - TYPICAL SECTION
PER CITY STD. PLAN MVSI-104D-0
(GRAHAM ST. TO HEACOCK ST.)
N.T.S.



VICINITY MAP
NO SCALE

UTILITY COMPANIES / EMERGENCY NUMBERS

TELEPHONE	VERIZON	(800) 483-4000
	AT&T	(800)310-2355
TELEPHONE	VERIZON	(800) 922-0204
WIRELESS	AT&T	(800) 331-0500
	T-MOBILE	(800) 746-0909
	SPRINT	(800) 211-4727
SEWER	E.M.W.D.	(951) 928-3777
WATER	E.M.W.D.	(951) 928-3777
ELECTRICITY	M.V.E.U.	(800) 341-6469
	S.C.E.	(800) 684-8123
GAS	THE GAS COM.	(800) 427-2200
TRASH	WATER MGMT. OF INLAND VALLEY	(800) 423-9986

PUBLIC SCHOOL DISTRICTS

1. MORENO VALLEY UNIFIED SCHOOL DISTRICT
   TEL: (951) 571–7500
2. VAL VERDE UNIFIED SCHOOL DISTRICT
   TEL: (951) 940–6100

THIS GRADING PLAN HAS BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AS OUTLINED IN THE FOLLOWING SOILS AND GEOLOGICAL REPORT FOR THIS PROJECT.

SOIL REPORT FOR PROPOSED WATER DROPS CARWASH

ENTITLED: GEOTECHNICAL ENG. INVESTIGATION
DATE: OCT. 24, 2016
FIRM NAME: SALEM ENG. GROUP
BY: ..... GEOTECHNICAL ENGINEER DATE
OR
BY: ..... ENGINEERING GEOLOGIST DATE

PRELIMINARY EARTHWORK

CUT 2,798 CY
FILL 400 CY
EXPORT 2,398 CY

LEGAL DESCRIPTION

A PORTION OF LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT IN CITY OF MORENO VALLEY, AS PER MB 014/012–013 RECORDS OF RIVERSIDE COUNTY, CA SEE SHEET C–2 FOR COMPLETE DESCRIPTION

AREA = 1.68 ACRES
DISTURBED AREA: 1.68 ACRES

CURRENT ZONING: SP204CC

FEMA FLOOD ZONE DESIGNATION

FLOOD ZONE: X
MAP NO. 06065C0753G
AREA DETERMINED TO BE OUTSIDE 500 YEAR FLOOD CONTROL

TOPOGRAPHIC SOURCE

SURVEY BY: CIVIL TRANS INC.
DATE: 07/10/2016
REFER TO SHEET 2 FOR EXISTING SURVEY SITE

PROJECT OWNER

COMPANY NAME: SH–60–AT HEACOCK STREET, LLC
CONTACT NAME: BIJAN SHAHMORADI
ADDRESS: 8730 WILSHIRE BLVD, SUITE 202 BEVERLY HILLS, CA 90211
PHONE: (310)433–6815
EMAIL: BIJAN@3MIL.COM

PRELIMINARY GRADING PLAN

INDEX

PEN16-0113 (PREV. PA16-0077)

CIVIL TRANS INC
ENGINEERING, PLANNING, SURVEYING
732 NO. Diamond Bar Blvd., Suite 128
Diamond Bar, California 91765
(909) 396–1131
EMAIL: CTRANS@VERIZON.NET

REGISTERED PROFESSIONAL ENGINEER — JAVAD M. ASLAN — NO. 32779 — EXP. 06/30/2018 — CIVIL — STATE OF CALIFORNIA

revision	date

printing date

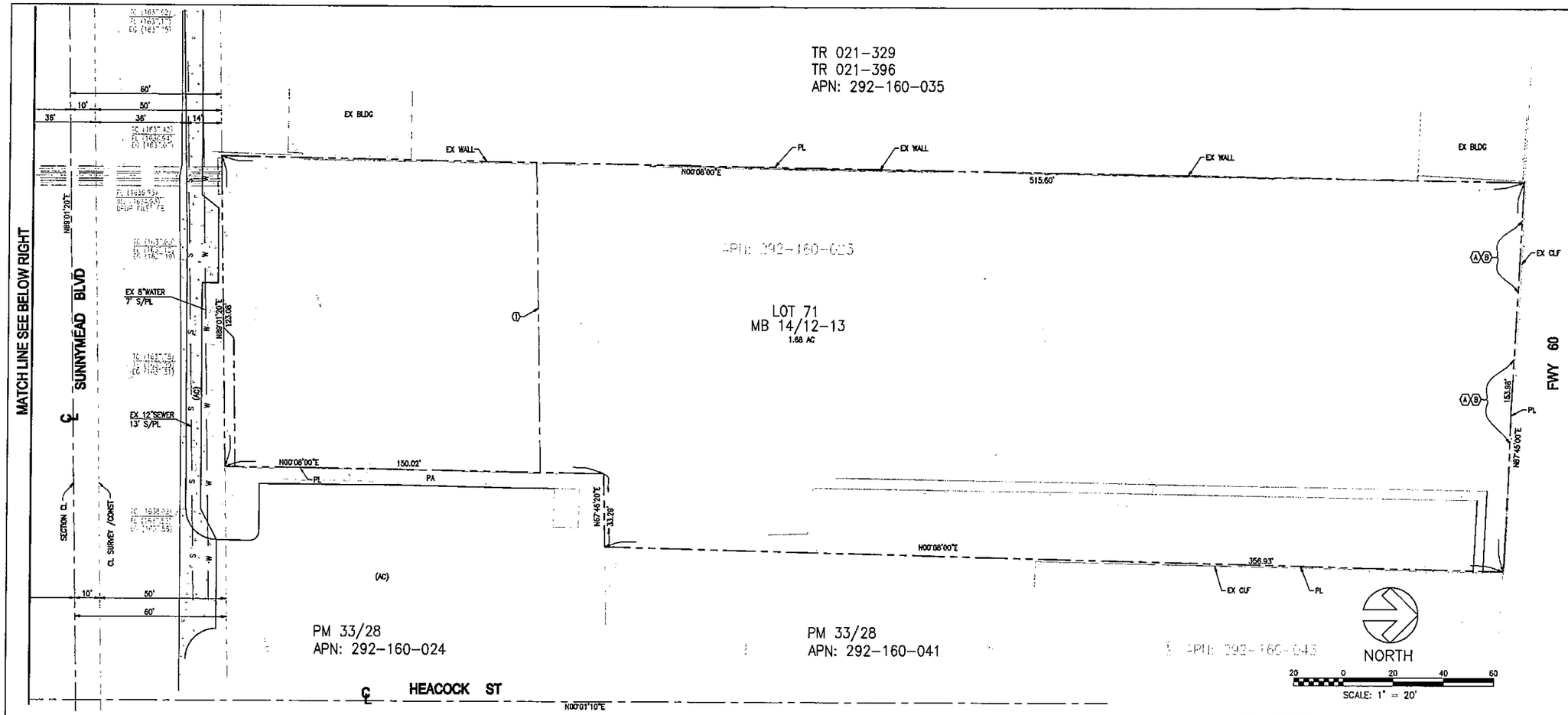
project
LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT RIVERSIDE COUNTY, CA APN: 292-160-023-9

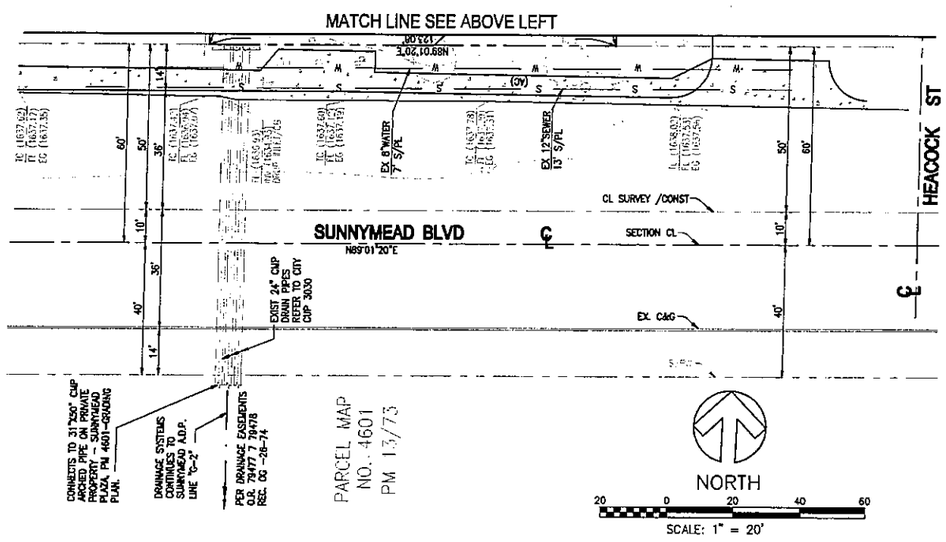
owner
SH-60-AT HEACOCK STREET, LLC
C/O P&N CONSTRUCTION
8730 WILSHIRE BLVD STE 202
BEVERLY HILLS, CA 90211
TEL : (310) 433-6815
FAX : (310) 657-7962
EMAIL: BIJAN@3MIL.COM

project no.	450–269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

sheet title
TITLE SHEET

sheet no.
C-1





LEGEND:

- DECORATIVE PAVING
- CONCRETE SURFACE
- BLOCK WALL
- CHAIN LINK FENCE
- PROPERTY LINE
- PARKING EASEMENT LINE
- TOP OF CURB
- ADJACENT LOT LINE
- CENTER LINE
- FLOW LINE
- PA PLANTER AREA
- EXISTING TREE

BENCH MARK:

CHARACTER OF MARK: BRASS DISK TOP OF CONCRETE HEADWALL
STAMPED: M-58 RESET 1985
ESTABLISHED BY: RIV. CO. SURVEY DEPT
DATE: 3/4/85

DETAILED DESCRIPTION: ON THE W'LY SIDE OF HEACOCK STREET, 325' N'LY FROM THE INTERSECTION OF HEACOCK STREET AND SUNNYMEAD BLVD; 255' S'LY FROM THE EASTBOUND OFFRAMP OF U.S. HIGHWAY 60; 2' E'LY OF A 3.5' X 5.5' CONCRETE WALLED GTE UNDERGROUND CABLE BOX; 2.5 FEET W'LY OF THE FACE OF CURB; 3' S'LY OF A WATER METER. SET A 10" DIAMETER CONCRETE POST WITH ALUMINUM DISK (2.5" DIAMETER) STAMPED AS ABOVE AND RIVERSIDE COUNTY BENCHMARK.

ELEVATION (FEET): 1538.95

EASEMENT NOTES:

(1) CENTER LINE EASEMENT FOR POLE LINES, CONDUITS AND PIPES INSTALLATION & MAINTENANCE PURPOSES IN FAVOR OF CALIFORNIA ELECTRIC POWER COMPANY PER DEED RECORDED MAY 4, 1956 PER INST. NO. 31948 O.R. OF RIVERSIDE COUNTY, CALIFORNIA

(2) MAINTENANCE AND CONSTRUCTION EASEMENT FOR PIPELINES IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT PER INST. NO. 115832, RECORDED NOV. 12, 1969, O.R. OF RIVERSIDE COUNTY, CALIFORNIA. THE EXACT LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD.

(3) EASEMENT FOR THE INSTALLATION AND MAINTENANCE OF PIPELINES, POLES OR OTHER NECESSARY EQUIPMENT IN FAVOR OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, PER DEED RECORDED JULY 18, 1934 IN BOOK 183, PAGE 284 OF OFFICIAL RECORDS, RIVERSIDE COUNTY, CALIFORNIA.

THIS EASEMENT AFFECTED THE REAR 5 FEET OF ORIGINAL LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT WHICH IS NOW A PORTION OF FWY 60.

(4) ALL EASEMENTS, OFFERS AND DEDICATIONS AS SHOWN ON THE OFFICIAL MAP, SUNNYMEAD ORCHARD FARM TRACT MAP. BASED ON MAP REVISION, LOT 71 DOES NOT SHOW ANY EASEMENTS, OFFERS, OR DEDICATIONS.

LEGAL DESCRIPTION:

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT, AS SHOWN BY MAP ON FILE IN BOOK 14, PAGE 12 AND 13 OF MAPS, RIVERSIDE COUNTY RECORDS, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

EXCEPTING THEREFROM THE SOUTH 20 FEET GRANTED TO THE STATE OF CALIFORNIA FOR HIGHWAY PURPOSES, BY DEED RECORDED JULY 18, 1936 IN BOOK 288, PAGE 594 OF OFFICIAL RECORDS, RIVERSIDE COUNTY, RECORDS,

ALSO EXCEPTING THEREFROM THAT PORTION TO THE STATE OF CALIFORNIA FOR HIGHWAY PURPOSES BY DEED RECORDED OCTOBER 9, 1953 AS INSTRUMENT NO. 48889, OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 71; THENCE ALONG THE EAST LINE OF SAID LOT 71, SOUTH 00°00'31" EAST 27.58 FEET; THENCE NORTH 84°17'28" WEST, 154.64 FEET TO THE WEST LINE OF SAID LOT, DISTANT ALONG SAID WEST LINE SOUTH 0°00'33" EAST, 9.15 FEET FROM THE NORTHWEST CORNER OF SAID LOT; THENCE ALONG SAID WEST LINE NORTH 0°00'33" WEST, 9.15 FEET TO SAID NORTHWEST CORNER; THENCE ALONG THE NORTH LINE OF SAID LOT, NORTH 88°51'57" EAST, 153.90 FEET TO THE POINT OF BEGINNING;

ALSO EXCEPTING THEREFROM THAT PORTION GRANTED TO THE STATE OF CALIFORNIA FOR HIGHWAY PURPOSES BY DEED RECORDED SEPTEMBER 18, 1959 AS INSTRUMENT NO. 80290, OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND, AS CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED OCTOBER 9, 1953 IN BOOK 1515, PAGE 310 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE ALONG THE EAST LINE OF SAID LOT 71, SOUTH 0°00'31" EAST 65.52 FEET; THENCE NORTH 87°49'46" WEST 153.98 FEET TO THE WEST LINE OF SAID LOT 71; THENCE ALONG SAID WEST LINE NORTH 0°00'33" WEST 75.07 FEET TO THE SOUTHERLY LINE OF SAID STATE OF CALIFORNIA PARCEL OF LAND; THENCE ALONG SAID SOUTHERLY LINE SOUTH 84°17'28" EAST 154.64 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM THAT PORTION OF SAID LAND BY DEED RECORDED JANUARY 5, 1979 AS INSTRUMENT NO. 3560, OFFICIAL RECORDS.

APN: 292-160-023-9

FLOOD ZONE:
UNSHADED X

NO ACCESS RIGHTS:

(A) THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET HIGHWAY, OR FREEWAY ABUTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY DOC. NO. 48889 IN BOOK 1515, PAGE 310, RECORDED OCT. 9, 1953, O.R. OF RIVERSIDE COUNTY, CALIFORNIA

(B) THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OF FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVE BEEN RELINQUISHED BY DOC. NO. 80290 IN BOOK 2547, PAGE 564, RECORDED SEPT. 18, 1959, O.R. OF RIVERSIDE COUNTY, CALIFORNIA

PEN16-0113 (PREV. PA16-0077)

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REGISTERED PROFESSIONAL ENGINEER
JAMES M. ARMSTRONG
NO. 32778
EXP. 09/30/2018
CIVIL
STATE OF CALIFORNIA

revision	date

printing date

project

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT RIVERSIDE COUNTY, CA APN: 292-160-023-9

owner

SH-80-AT HEACOCK STREET, LLC
C/O P&N CONSTRUCTION
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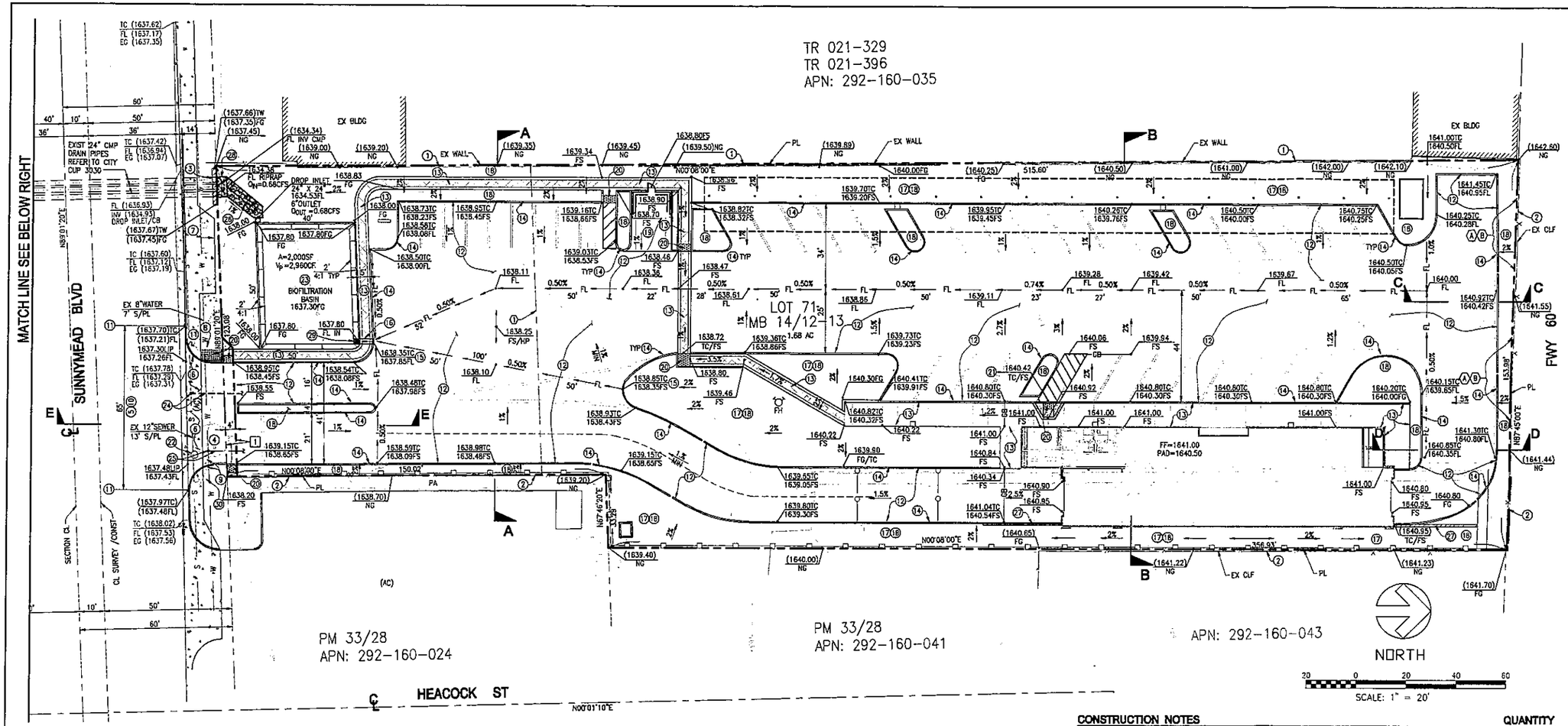
project no.	450-269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

sheet title

EXISTING SITE SURVEY

sheet no.

C-2



CONSTRUCTION NOTES

		QUANTITY
①	PROTECT EXISTING WALL IN PLACE	—
②	PROTECT EXISTING CHAINLINK FENCE IN PLACE	—
③	PROTECT EXISTING DRAIN SYSTEM WALL & PIPES IN PLACE	—
④	REMOVE EXISTING TREE PER CITY GUIDELINES	1 EA
⑤	SAWCUT AND REMOVE EXISTING CURB AND GUTTER AS SHOWN PER PLAN	65 LF
⑥	SAWCUT AND REMOVE EXISTING SIDEWALK AS SHOWN PER PLAN	320 SF
⑦	PROTECT EXISTING BUS STOP AND POSTS IN PLACE	—
⑧	CONSTRUCT 4" THICK CONCRETE SIDEWALK PER CITY STANDARD PLAN NO. MVSI-115A-0	60 SF
⑨	ADJUST UTILITY BOXES PER CITY STANDARDS AND UTILITY COMPANY STANDARDS	2 EA
⑩	CONSTRUCT CONCRETE DRIVEWAY APPROACH AT LOCATION SHOWN PER CITY STANDARD PLAN NO. MVSI-112C-0 W=40', R=12'	850 SF
⑪	MATCH TO JOIN WITH EXIST ELEVATION	—
⑫	CONSTRUCT CONCRETE PAVEMENT WITH CONTROL JOINTS PER PLAN AND DETAIL NO. 1 AS SHOWN ON C-4	43,280 SF
⑬	CONSTRUCT 4" CONCRETE WALKWAY PER ARCHITECTURAL PLANS.	—
⑭	CONSTRUCT 6" CONCRETE CURB PER CITY STANDARD NO. MVSI-121A-0	—
* ⑮	PROVIDE 1' WIDE CURB OPENING FOR OVERFLOW DRAINAGE AS SHOWN ON DETAIL NO. 2 ON SHEET C-4	1 EA
⑯	INSTALL 5'Lx2'Wx0.5'D METAL DRAIN UNDER WALKWAY	1 EA
⑰	GRADE AREA TO DRAIN MIN. 2% SLOPE	—
* ⑱	LANDSCAPE AREA AS SHOWN	LS
⑲	TRASH ENCLOSURE PER SITE PLAN	—
⑳	INSTALL DETECTABLE WARNING STRIP AT LOCATIONS SHOWN. ARMOR-TILE OR EQUAL, 4'W X 3'L MIN.	6 EA
㉑	CONSTRUCT HC RAMP AS SHOWN PER APWA STD. PLAN 111-5, CASE A, TYPE 2.	1 EA
㉒	ADJUST SEWER MANHOLE TO GRADE PER EMWD STANDARD	1 EA
㉓	CONSTRUCT BIOFILTRATION BASIN with 24" X 24" DROP INLET CATCH BASIN AS SHOWN PER PLAN AND DETAIL NO. 4 ON SHEET C-4	1 EA
㉔	P.O.C. 6" SEWER LATERAL CONNECTION PER EMWD REQUIREMENTS	1 EA
㉕	P.O.C. MIN. 3" WATER SERVICE CONNECTION PER EMWD REQUIREMENTS	1 EA
* ㉖	CONSTRUCT 5' X 6' X 15'L ROCK RIP RAP AS SHOWN PER PLAN AND DETAIL NO. 3 ON SHEET C-4	1 EA
㉗	CONSTRUCT SOUND WALL PER ARCH AND STRUCTURAL PLANS	60 LF
㉘	CONSTRUCT ROCK RIP-RAP AT PIPES ENTRANCE AS SHOWN PER DETAIL NO. 5 ON SHEET C-4	1 EA
* ㉙	PLACE 6"-8" DIAMETER ROCKS AT BIOFILTER SLOPE AREA FOR RUNOFF INFLOW EROSION CONTROL, MIN. 2' X 2' AREA	1 EA
㉚	PROTECT EXISTING STREET LIGHT POLE IN PLACE	1 EA

* LID/BMP USED

PEN16-0113 (PREV. PA16-0077)

DEDICATION NOTE:

[1] 4' WIDE DEDICATION AT DRIVEWAY PER CITY STANDARD PLAN NO. MVSI-112C-0

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REGISTERED PROFESSIONAL ENGINEER — No. 33778 — EXP. 09/30/2018 — CIVIL — STATE OF CALIFORNIA

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project

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT
RIVERSIDE COUNTY, CA
APN: 292-160-023-9

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scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

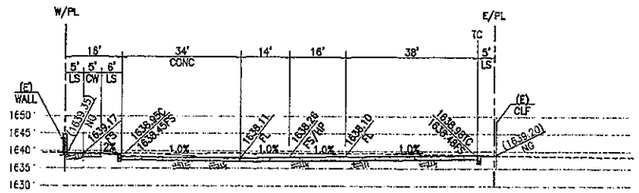
sheet title

PRELIMINARY GRADING PLAN

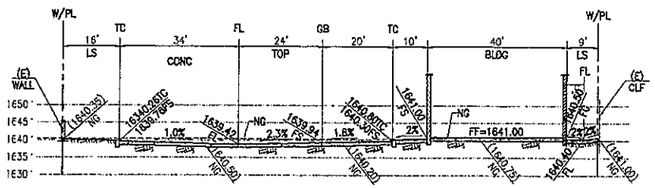
sheet no.

C-3

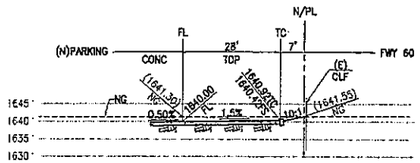
Attachment: P-WQMP [Revision 2] (2913 : PEN16-0113 Plot Plan)



SECTION A-A
HORIZ.: 1"=20'
VERT.: 1"=20'



SECTION B-B
HORIZ.: 1"=20'
VERT.: 1"=20'



SECTION C-C
HORIZ.: 1"=20'
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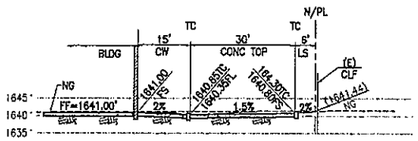
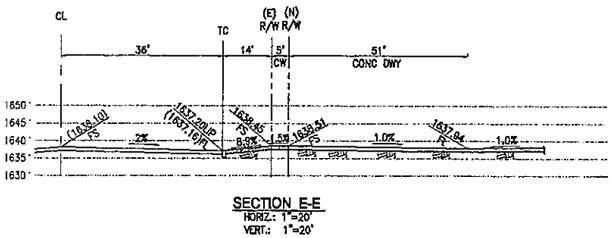


SECTION D-D
HORIZ.: 1"=20'
VERT.: 1"=20'



SECTION E-E
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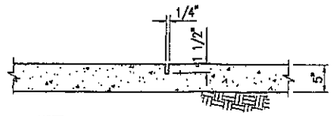
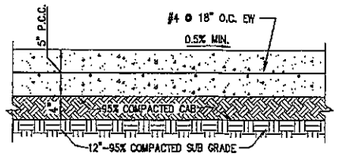
VERT.: 1"=20'



NOTE:
WEAKENED PLAN JOINTS IN CONCRETE PAVEMENT SHALL BE SAWED JOINTS AND SHALL HAVE 10' MAXIMUM SPACING.

CONTROL JOINT OR CONTRACTION JOINT
(TRANSVERSE OR LONGITUDINAL)
TYPICAL DETAIL



CONCRETE PAVEMENT DETAIL 1
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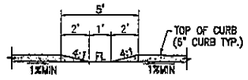
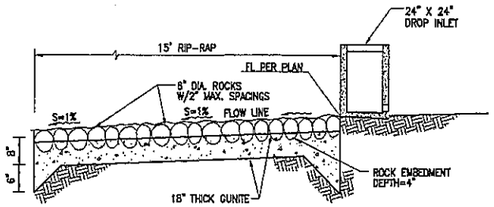
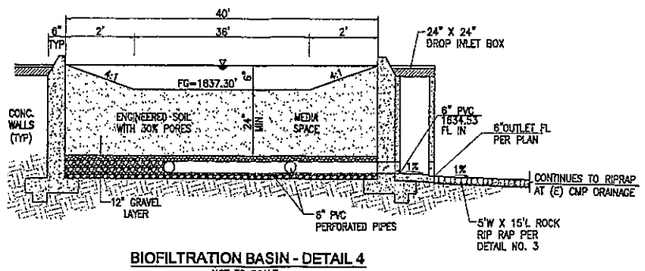


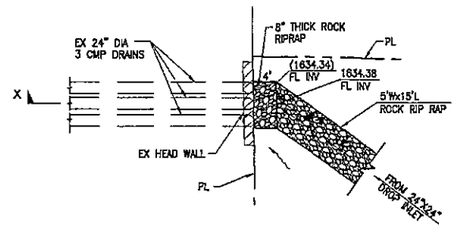
CURB OPENING OUTLET - DETAIL 2
NOT TO SCALE



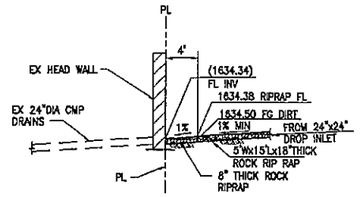
5' WIDE ROCK RIP-RAP
DETAIL NO. 3
N.T.S.



BIOFILTRATION BASIN - DETAIL 4
NOT TO SCALE



PLAN
SCALE: 1"=1'



SECTION X-X
SCALE: 1"=1'

RIP-RAP AT PIPE ENTRANCE - DETAIL 5
SCALE AS SHOWN

CIVIL TRANS INC
ENGINEERING, PLANNING, SURVEYING
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REGISTERED PROFESSIONAL ENGINEER
JAMES M. ANDA
No. 39779
EXP. 06/30/2018
CIVIL
STATE OF CALIFORNIA

revision	date

printing date

project
LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT
RIVERSIDE COUNTY, CA
APN: 292-160-023-9

owner
SH-60-AT HEACOCK STREET, LLC
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project no.	450-269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

sheet title
SECTIONS & DETAILS

sheet no.
C-4

PEN16-0113 (PREV. PA16-0077)

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

SALEM engineering group, inc.

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GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED WATER DROPS CARWASH
NEAR SUNNYMEAD BOULEVARD & HEACOCK STREET
APN 292-160-023
MORENO VALLEY, CALIFORNIA

1. PURPOSE AND SCOPE

This report presents the results of our Geotechnical Engineering Investigation for the Proposed Water Drops Carwash to be located near the intersection of Sunnymead Boulevard and Heacock Street in Moreno Valley, California (see Figure 1, Vicinity Map).

The purpose of our geotechnical engineering investigation was to observe and sample the subsurface conditions encountered at the site, and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed.

The scope of this investigation included a field exploration, laboratory testing, engineering analysis and the preparation of this report. Our field exploration was performed on October 10, 2016 and included the drilling of five (5) small-diameter soil borings to a maximum depth of 36 feet at the site. Additionally, two (2) percolation tests were performed on October 11, 2016 at depths of approximately 10 to 20 feet below existing grade for determination of the percolation rate. The locations of the soil borings and percolation tests are depicted on Figure 2, Site Plan. A detailed discussion of our field investigation, exploratory boring logs and percolation test results are presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to evaluate pertinent physical properties for engineering analyses. Appendix B presents the laboratory test results in tabular and graphic format.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions.

If project details vary significantly from those described herein, SALEM should be contacted to determine the necessity for review and possible revision of this report. Earthwork and Pavement Specifications are presented in Appendix C. If text of the report conflict with the specifications in Appendix C, the recommendations in the text of the report have precedence.

2. PROJECT DESCRIPTION

Based on information provided to us, we understand that the proposed development of the site will include construction of a carwash facility on a vacant undeveloped land. The facility will include a carwash tunnel building, a vacuum canopy, automated cashier pay stations, and a trash enclosure. On-

site parking and landscaping are planned to be associated with the development. Maximum wall load is expected to be on the order of 2.5 kips per linear foot. Maximum column load is expected to be on the order of 50 kips. Floor slab soil bearing pressure is expected to be on the order of 150 psf.

Concrete and asphaltic concrete pavement for parking area, customers travel lanes, and truck lane are to be designed for standard duty and heavy-duty traffic loading based on an Equivalent Single Axle Load (ESAL) of 18 kips, a maximum load of 60,000 ESAL and a design life of 20 years. The pavement design recommendations provided herein are based on the State of California Department (CALTRANS) design manual.

A site grading plan was not available at the time of preparation of this proposal. As the existing project area is essentially level, we anticipate that cuts and fills during the earthwork will be minimal and limited to providing a level building pad and positive site drainage. In the event that changes occur in the nature or design of the project, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions of our report are modified. The site configuration and locations of proposed improvements are shown on the Site Plan, Figure 1.

3. SITE LOCATION AND DESCRIPTION

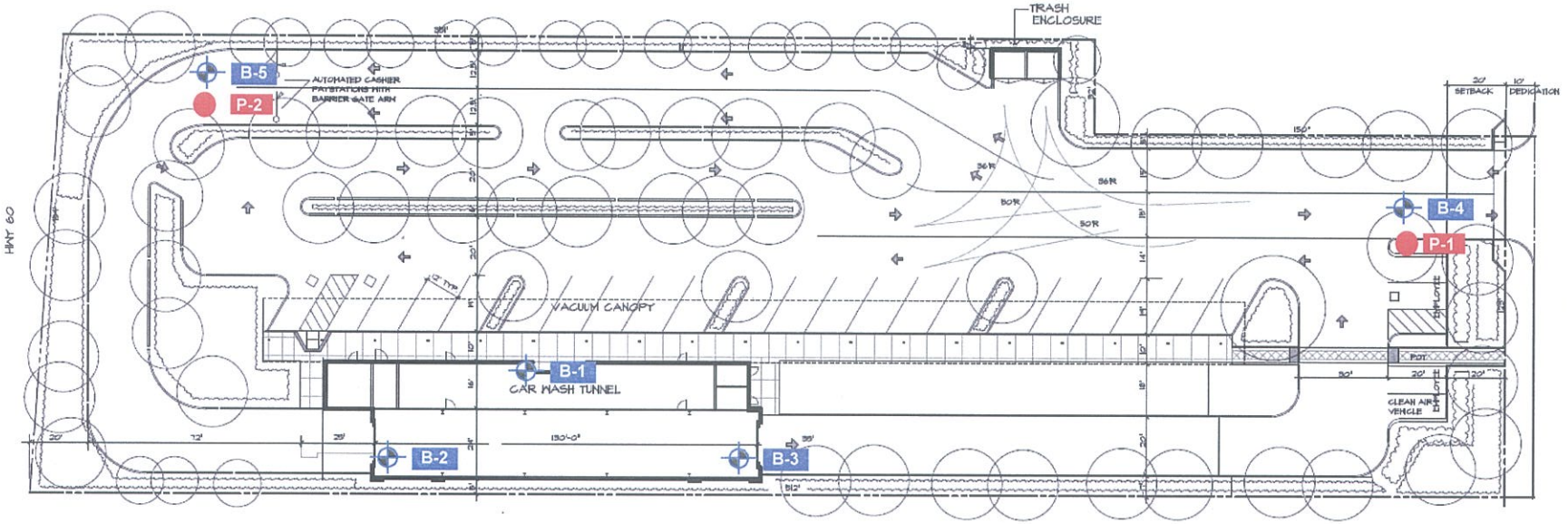
The site is rectangular in shape and encompasses approximately 1.68 acres. The subject site is located near the intersection of Sunnymead Boulevard and Heacock Street in the City of Moreno Valley, California (see Vicinity Map, Figure 1). The site is currently vacant with sparse vegetation and debris. The site is predominantly surrounded by commercial and residential developments. The site is relatively flat with no major changes in grade. The average elevation of the site is approximately 1,644 feet above mean sea level (AMSL), based on Google Earth Imagery.

4. FIELD EXPLORATION

Our field exploration consisted of site surface reconnaissance and subsurface exploration. The exploratory test borings (B-1 through B-5) were drilled on October 10, 2016 in the area shown on the Site Plan, Figure 2. The test borings were advanced with an 8-inch diameter hollow stem auger and a 4-inch diameter solid-flight auger rotated by a truck-mounted CME-45C drill rig. The test borings were advanced to a maximum depth of 36 feet below existing grade. Drilling was limited due to auger refusal on the dense soil.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer and stratification lines were approximated on the basis of observations made at the time of drilling. Visual classification of the materials encountered in the test borings were generally made in accordance with the Unified Soil Classification System (ASTM D2487). A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix "A." The logs of the test borings are presented in Appendix "A." The Boring Logs include the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The location of the test borings were determined by measuring from features shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants. The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Logs in Appendix "A" should be consulted.

MAXIMUM NO. OF EMPLOYEES.....5
PARKING REQUIRED.....10 + (2X3= 6) = 16 STALLS
TOTAL PARKING REQUIRED.....26 STALLS
REQUIRED CLEAN AIR STALLS.....26 X .08 = 2 STALLS
TOTAL CLEAN AIR STALLS PROVIDED.....2 STALLS



SITE PLAN

GEOTECHNICAL ENGINEERING INVESTIGATION
Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, California

SCALE:	DATE:
NOT TO SCALE	10/2016
DRAWN BY:	APPROVED BY:
II	CJ
PROJECT NO.	FIGURE NO.
3-216-1097	2

LEGEND:
B-1 Soil Boring Locations
P-1 Perc Test Locations
All Locations Approximate

SALEM engineering group, inc.

Soil samples were obtained from the test borings at the depths shown on the logs of borings. The MCS samples were recovered and capped at both ends to preserve the samples at their natural moisture content; SPT samples were recovered and placed in a sealed bag to preserve their natural moisture content. The borings were backfilled with soil cuttings after completion of the drilling.

5. LABORATORY TESTING

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, shear strength, consolidation potential, expansion index, maximum density and optimum moisture determination, and gradation of the materials encountered.

In addition, chemical tests were performed to evaluate the corrosivity of the soils to buried concrete and metal. Details of the laboratory test program and the results of laboratory test are summarized in Appendix "B." This information, along with the field observations, was used to prepare the final boring logs in Appendix "A."

6. GEOLOGIC SETTING

The subject site is located within the Peninsular Range Geomorphic Province, an area characterized by active northeast trending strike slip faults, including the San Jacinto to the northwest, and the Elsinore to the southwest. The project site is situated between the Santa Rosa Mountains and the San Jacinto Mountains to the east; and Santa Ana Mountains to the west and south. The near-surface deposits in the vicinity of the subject site are comprised of recent alluvium consisting of unconsolidated sands, silt, and clays derived from erosion of local mountain ranges. Deposits encountered on the subject site during exploratory drilling are discussed in detail in this report.

7. GEOLOGIC HAZARDS

7.1 Faulting and Seismicity

The Peninsular Range has historically been a province of relatively high seismic activity. The nearest faults to the project site are associated with the San Jacinto Fault system located approximately 4.2 miles from the site. There are no known active fault traces in the project vicinity. Based on mapping and historical seismicity, the seismicity of the Peninsular Range has been generally considered high by the scientific community.

The project area is not within an Alquist-Priolo Earthquake Fault (Special Studies) Zone and will not require a special site investigation by an Engineering Geologist. Soils on site are classified as Site Class D in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, we used the United States Geological Survey (USGS) web-based application *2008 National Seismic Hazard Maps - Fault Parameters*. Site latitude is 33.9402° North; site longitude is -117.2450° West. The ten closest active faults are summarized below in Table 7.1.

TABLE 7.1
REGIONAL FAULT SUMMARY

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
San Jacinto; SBV+SJV+A+CC+B+SM	4.2	7.9
San Jacinto; SBV	5.3	7.1
San Jacinto; A+CC+B+SM	8.5	7.6
S. San Andreas; PK+CH+CC+BB+NM+SM+NSB+SSB+BG+CO	13.7	8.2
S. San Andreas; PK+CH+CC+BB+NM+SM+NSB	14.5	8.0
Elsinore; W+GI+T+J+CM	18.4	7.8
Cucamonga	20.1	6.7
Chino, alt 2	20.1	6.8
Elsinore; T+J+CM	20.5	7.6

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

7.2 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

7.3 Ground Shaking

We used the USGS web-based application *US Seismic Design Maps* to estimate the peak ground acceleration adjusted for site class effects (PGA_M). Because of the proximity to the subject site and the maximum probable events for these faults, it appears that a maximum probable event along the fault zones could produce a peak horizontal acceleration of approximately 0.647g (2% probability of being exceeded in 50 years). While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site.

7.4 Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. However, liquefaction has occurred in soils other than clean sand.

The soils encountered within the depth of 50 feet on the project site consisted predominately of silty sand with varying amounts of clay, silty sand/sandy silt with trace clay, and sandy silt with varying

amounts of clay. The depth of groundwater within the vicinity of the site is estimated to be at a depth of approximately between 70 to 90 feet below ground surface according to the State Water Resources Control Board Geotracker website (http://geotracker.waterboards.ca.gov) records of Fastrip #13 (T0606500482) leaking underground storage tank (LUST) site, located at 23991 Sunnymead Boulevard, which is located approximately 150 south of subject site, and on the south side of Sunnymead Boulevard. The Riverside County Office of Information Technology GIS website: http://mmc.rivcoit.org/MMC_Public/ Viewer.html?Viewer=MMC_Public does not show the subject site to be in a high or moderate liquefaction potential area.

Low to very low cohesion strength is commonly associated with the sandy soil profile at the site. A seismic hazard, which could cause damage to the proposed development during seismic shaking, is the post-liquefaction settlement of liquefied sands. The site was evaluated for liquefaction potential. The liquefaction analysis indicated that the soils had a low potential for liquefaction under seismic conditions, therefore no mitigation measures are warranted.

7.5 Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography and low liquefaction potential, we judge the likelihood of lateral spreading to be low.

7.6 Landslides

There are no known landslides at the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

7.7 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site. Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

8. SOIL AND GROUNDWATER CONDITIONS

8.1 Subsurface Conditions

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils within the depth of exploration consisted of alluvium deposits of medium dense to very dense silty sand with varying amounts of clay, medium dense to very dense silty sand/sandy silt with trace clay, and stiff to hard sandy silt.

Fill materials may be present onsite beyond our boring location. Undocumented fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspect the bottom of the excavation to verify the fill condition.

The soils were classified in the field during the drilling and sampling operations. The stratification lines were approximated by the field engineer on the basis of observations made at the time of drilling. The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Logs in Appendix "A" should be consulted. The Boring Logs include the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The locations of the test borings were determined by measuring from feature shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants.

8.2 Groundwater

The test boring locations were checked for the presence of groundwater during and after the drilling operations. Free groundwater was not encountered during this investigation. The depth of groundwater within the vicinity of the site is estimated to be at a depth of approximately between 70 to 90 feet below ground surface according to the State Water Resources Control Board Geotracker website (http://geotracker.waterboards.ca.gov) records of Fastrip #13 (T0606500482) leaking underground storage tank (LUST) site, located at 23991 Sunnymead Boulevard, which is located approximately 150 south of the subject site.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, localized pumping, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

8.3 Soil Corrosion Screening

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. The 2011 Edition of ACI 318 (ACI 318) has established criteria for evaluation of sulfate and chloride levels and how they relate to cement reactivity with soil and/or water.

A soil sample was obtained from the project site and was tested for the evaluation of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts and soluble chloride. The water-soluble sulfate concentration in the saturation extract from the soil sample was detected to be 145 mg/kg. ACI 318 Tables 4.2.1 and 4.3.1 outline exposure categories, classes, and concrete requirements by exposure class. ACI 318 requirements for site concrete based upon soluble sulfate are summarized in Table 8.3 below.

TABLE 8.3
WATER SOLUBLE SULFATE EXPOSURE REQUIREMENTS

Water Soluble Sulfate (SO_4) in Soil, Percentage by Weight	Exposure Severity	Exposure Class	Maximum w/cm Ratio	Minimum Concrete Compressive Strength	Cementations Materials Type
0.0145	Not Applicable	S0	N/A	2,500 psi	No Restriction

The water-soluble chloride concentration detected in saturation extract from the soil samples was 166 mg/kg. This level of chloride concentration is not considered severely corrosive. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, applicable manufacturer's recommendations for corrosion protection of buried metal pipe be closely followed.

8.4 Percolation Testing

Two percolation tests (P-1 and P-2) were performed within assumed infiltration areas and were conducted in accordance with in accordance with the guidelines established by the County of Riverside. The approximate locations of the percolation tests are shown on the attached Site Plan, Figure 2.

Eight-inch diameter boreholes were advanced to the depths shown on the percolation test worksheets. The holes were pre-saturated a minimum of 18 hours and maximum of 24 hours before percolation testing commenced. Percolation rates were measured by filling the test holes with clean water and measuring the water drops at a certain time interval.

The percolation rate data are presented in tabular format at the end of this Report. The difference in the percolation rates are reflected by the varied type of soil materials at the bottom of the test holes. The test results are shown on the table below.

Test No.	Depth (feet)	Measured Percolation Rate (min/inch)	Tested Infiltration Rate* (inch/hour)	Soil Type
P-1	10	31.3	0.14	Silty SAND /Sandy SILT (SM/ML) with clay
P-2	20	20.8	0.24	Silty SAND (SM) with clay

* Tested infiltration Rate = $(\Delta H\ 60\ r) / (\Delta t(r + 2H_{avg}))$

The soil infiltration or percolation rates are based on tests conducted with clear water. The infiltration/percolation rates may vary with time as a result of soil clogging from water impurities. The infiltration/percolation rates will deteriorate over time due to the soil conditions and an appropriate factor of safety (FS) may be applied. The owner or civil engineer may elect to use a lower FS for the design; however, more frequent maintenance will be expected. The soils may also become less permeable to impermeable if the soil is compacted. Thus, periodic maintenance consisting of clearing the bottom of the drainage system of clogged soils should be expected.

The infiltration/percolation rate may become slower if the surrounding soil is wet or saturated due to prolonged rainfalls. Additional percolation tests may be conducted at bottom of the drainage system during construction to verify the infiltration/percolation rate. Groundwater, if closer to the bottom of the drainage system, will also reduce the infiltration/percolation rate.

The scope of our services did not include a groundwater study and was limited to the performance of percolation testing and soil profile description, and the submitted data only. Our services did not include those associated with septic system design. Neither did services include an Environmental Site

Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands.

Any statements, or absence of statements, in this report or on any boring logs regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices. The work conducted through the course of this investigation, including the preparation of this report, has been performed in accordance with the generally accepted standards of geotechnical engineering practice, which existed in the geographic area at the time the report was written. No other warranty, express or implied, is made.

Please be advised that when performing percolation testing services in relatively small diameter borings, that the testing may not fully model the actual full scale long term performance of a given site. This is particularly true where percolation test data is to be used in the design of large infiltration system such as may be proposed for the site.

The measured percolation rate includes dispersion of the water at the sidewalls of the boring as well as into the underlying soils. Subsurface conditions, including percolation rates, can change over time as fine-grained soils migrate. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction of improvements at the site as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

9.1.2 The primary geotechnical constraints identified in our investigation is the presence of potentially compressible material at the site. Recommendations to mitigate the effects of these soils are provided in this report.

9.1.3 Fill materials may be present onsite beyond our boring location. The fill materials consisted of loose to medium dense silty sand. Undocumented fill materials are not suitable to support any future structures and should be replaced with Engineered Fill. The extent and consistency of the fills should be verified during site construction. Prior to fill placement, Salem Engineering Group, Inc. should inspect the bottom of the excavation to verify the fill condition.

APPENDIX A
FIELD EXPLORATION

Fieldwork for our investigation (drilling) was conducted on October 10, 2016 and included a site visit, subsurface exploration, and soil sampling. Percolation tests were performed on October 11, 2016. The locations of the exploratory borings and percolation tests are shown on the Site Plan, Figure 2. Boring logs for our exploration are presented in figures following the text in this appendix. Borings were located in the field using existing reference points. Therefore, actual boring locations may deviate slightly.

In general, our borings were performed using a truck-mounted CME 45C drill rig equipped with an 8-inch dimeter hollow-stem augers and a 4-inch solid flight auger. Sampling in the borings was accomplished using a hydraulic 140-pound hammer with a 30-inch drop. Samples were obtained with a 3-inch outside-diameter (OD), split spoon (California Modified) sampler, and a 2-inch OD, Standard Penetration Test (SPT) sampler. The number of blows required to drive the sampler the last 12 inches (or fraction thereof) of the 18-inch sampling interval were recorded on the boring logs. The blow counts shown on the boring logs should not be interpreted as standard SPT "N" values; corrections have not been applied. Upon completion, the borings were backfilled with drill cuttings.

Subsurface conditions encountered in the exploratory borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, drill rig penetration rates, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

Unified Soil Classification System

Major Divisions			Letter	Symbol	Description
Coarse-grained Soils More than ½ retained on the No. 200 Sieve	**Gravels** More than ½ coarse fraction retained on the No. 4 sieve	Clean Gravels	GW		Well-graded gravels and gravel-sand mixtures, little or no fines.
			GP		Poorly-graded gravels and gravel-sand mixtures, little or no fines.
		Gravels With Fines	GM		Silty gravels, gravel-sand-silt mixtures.
			GC		Clayey gravels, gravel-sand-clay mixtures.
	Sands More than ½ passing through the No. 4 sieve	Clean Sands	SW		Well-graded sands and gravelly sands, little or no fines.
			SP		Poorly-graded sands and gravelly sands, little or no fines.
		Sands With Fines	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sandy-clay mixtures.
Fine-grained Soils More than ½ passing through the No. 200 Sieve	**Silts and Clays** Liquid Limit less than 50%		ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL		Organic clays of medium to high plasticity.
	Silts and Clays Liquid Limit greater than 50%		MH		Inorganic silts, micaceous or diatomaceous fines sands or silts, elastic silts.
			CH		Inorganic clays of high plasticity, fat clays.
			OH		Organic clays of medium to high plasticity.
Highly Organic Soils			PT		Peat, muck, and other highly organic soils.

Consistency Classification

Granular Soils			*Cohesive Soils*		
Description - Blows Per Foot (Corrected)			Description - Blows Per Foot (Corrected)		
	MCS	SPT		MCS	SPT
Very loose	<5	<4	Very soft	<3	<2
Loose	5 - 15	4 - 10	Soft	3 - 5	2 - 4
Medium dense	16 - 40	11 - 30	Firm	6 - 10	5 - 8
Dense	41 - 65	31 - 50	Stiff	11 - 20	9 - 15
Very dense	>65	>50	Very Stiff	21 - 40	16 - 30
			Hard	>40	>30

MCS = Modified California Sampler SPT = Standard Penetration Test Sampler

Boring No. B-1

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-1
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
		SUBSURFACE PROFILE	**SAMPLE**				
0		Ground Surface					
		Silty SAND (SM) Dense; slightly moist; brown; fine-medium grained; with trace clay.	116.5	3.3	MCS	■	57
5		Grades as above; very dense; moist.	112.7	8.1	MCS	■	60
10		Grades as above; medium dense; slightly moist.	-	4.3	SPT	■	23
15		Grades as above; dense; moist.	-	7.8	SPT	■	37
		Silty SAND/Sandy SILT (SM/ML) Dense; moist; brown; fine-medium grained; with trace clay.					
20			-	10.9	SPT	■	37
25		Grades as above; medium dense.	-	9.7	SPT	■	24

Penetration Test: 20 40 60 80

Water Level

Drill Method: Hollow Stem Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 2

Drill Date: 10/10/16
Borehole Size: 8 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-1

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-1
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
		Sandy SILT (ML) Stiff; moist; brown; fine-medium grained; with clay.							
30			-	12.8	SPT		14		
35		Grades as above; hard.	-	9.0	SPT		43		
		Auger refusal at 36 feet due to dense soils.							
40									
45									
50									

Drill Method: Hollow Stem Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 2 of 2

Drill Date: 10/10/16
Borehole Size: 8 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-2

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-2
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
0		Ground Surface					
		Silty SAND (SM) Dense; slightly moist; brown; fine-medium grained; with trace clay.	108.7	3.8	MCS		52
5		**Silty SAND/Sandy SILT (SM/ML)** Very dense; moist; brown; fine-medium grained; with trace clay.	109.7	7.7	MCS		50
		Silty SAND (SM) Medium dense; moist; brown; fine-medium grained; with clay.	-	11.3	SPT		20
15		Grades as above; dense.	-	9.2	SPT		43
		Grades as above.					
20		End of Borehole					
25							

Penetration Test: 20 40 60 80

Water Level

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-3

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-3
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count
0		Ground Surface					
		Silty SAND (SM) Medium dense; slightly moist; brown; fine-medium grained; with trace clay.	104.1	4.7	MCS	■	36
5		Grades as above; dense.	105.8	3.6	MCS	■	54
10		Grades as above; medium dense.	-	6.9	SPT	■	19
15		Grades as above; very dense.	-	6.1	SPT	■	51
20		Grades as above.					
		End of Borehole					
25							

Penetration Test: 20 40 60 80

Water Level

Drill Method: Soild Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-4

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-4
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
		Ground Surface							
0		**Silty SAND/Sandy SILT (SM/ML)** Dense; slightly moist; brown; fine-medium grained; with trace clay.	106.0	4.3	MCS		43		
5		Grades as above; medium dense; fine grained.	115.7	10.7	MCS		40		
10		Grades as above.							
		End of Borehole							
15									
20									
25									

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Boring No. B-5

Project: Proposed Water Drops Carwash
Client: P&N Construction, Tri-millennium Properties
Location: Near Sunnymead Boulevard & Heacock Street, Moreno Valley, CA
Grnd. Surf. Elev. (Ft. MSL) N/A

Project No: 3-216-1097
Figure No.: A-5
Logged By: SMG
Initial: None
Depth to Water>
At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture Content (%)	Sampler Type	Penetration	Blow Count	Penetration Test (20 40 60 80)	Water Level
0		Ground Surface							
		Silty SAND (SM) Medium dense; slightly moist; brown; fine-coarse grained; with trace clay.	105.2	4.5	MCS		25		
5		Grades as above; dense.	105.0	3.9	MCS		43		
10		Grades as above. End of Borehole							
15									
20									
25									

Drill Method: Solid Flight Auger
Drill Rig: CME-45C
Driller: Salem Engineering Group, Inc.
Sheet: 1 of 1

Drill Date: 10/10/16
Borehole Size: 4 inches
Hammer Type: Auto Trip.
Weight & Drop: 140lbs./30in.

SALEM

Percolation Test Worksheet

Project: Proposed Water Drops Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, CA

Job No.: 3-216-1097
Date Drilled: 10/10/2016
Soil Classification: Silty Sand/Sandy Silt w/ clay

Hole Radius: 4 in.
Pipe Dia.: 3 in.
Totoal Depth of Hole: 120 in.

Test Hole No.: P-1
Tested by: SK
Drilled Hole Depth: 10 ft.

Presoaking Date: 10/10/2016
Test Date: 10/11/2016

Time Start	Time Finish	Depth of Test Hole (ft)#	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Meas. Perc Rate (min/in)	Initial Height of Water (in)	Final Height of Water (in)	Average Height of Water (in)	Infiltration Rate, It (in/hr)
10:10	10:40	10.0	Y	0:30	6.75	6.94	2.28	30	13.2	39.0	36.7	37.9	0.23
10:40	11:10	10.0	N	0:30	6.94	7.09	1.80	30	16.7	36.7	34.9	35.8	0.19
11:10	11:40	10.0	N	0:30	7.09	7.23	1.68	30	17.9	34.9	33.2	34.1	0.19
11:40	12:10	10.0	N	0:30	7.23	7.36	1.56	30	19.2	33.2	31.7	32.5	0.18
12:10	12:40	10.0	N	0:30	7.36	7.48	1.44	30	20.8	31.7	30.2	31.0	0.17
12:40	13:10	10.0	N	0:30	7.48	7.59	1.32	30	22.7	30.2	28.9	29.6	0.17
13:10	13:40	10.0	N	0:30	7.59	7.69	1.20	30	25.0	28.9	27.7	28.3	0.16
13:40	14:10	10.0	N	0:30	7.69	7.78	1.08	30	27.8	27.7	26.6	27.2	0.15
14:10	14:40	10.0	N	0:30	7.78	7.87	1.08	30	27.8	26.6	25.6	26.1	0.15
14:40	15:10	10.0	N	0:30	7.87	7.95	0.96	30	31.3	25.6	24.6	25.1	0.14
15:10	15:40	10.0	N	0:30	7.95	8.03	0.96	30	31.3	24.6	23.6	24.1	0.15
15:40	16:10	10.0	N	0:30	8.03	8.11	0.96	30	31.3	23.6	22.7	23.2	0.15
Recommended for Design:										**Infiltration Rate**			**0.14**

SALEM engineering group, inc.

Percolation Test Worksheet

Project: Proposed Water Drop Carwash
Near Sunnymead Boulevard & Heacock Street
Moreno Valley, CA

Job No.: 3-216-1097
Date Drilled: 10/10/2016
Soil Classification: Silty Sand with clay

Hole Radius: 4 in.
Pipe Dia.: 3 in.
Totoal Depth of Hole: 240 in.

Test Hole No.: P-2
Tested by: SK
Drilled Hole Depth: 20 ft.

Presoaking Date: 10/10/2016
Test Date: 10/11/2016

Time Start	Time Finish	Depth of Test Hole (ft)#	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Meas. Perc Rate (min/in)	Initial Height of Water (in)	Final Height of Water (in)	Average Height of Water (in)	Infiltration Rate, It (in/hr)
10:00	10:30	20.0	Y	0:30	16.10	16.40	3.60	30	8.3	46.8	43.2	45.0	0.31
10:30	11:00	20.0	N	0:30	16.40	16.64	2.88	30	10.4	43.2	40.3	41.8	0.26
11:00	11:30	20.0	N	0:30	16.64	16.85	2.52	30	11.9	40.3	37.8	39.1	0.25
11:30	12:00	20.0	N	0:30	16.85	17.04	2.28	30	13.2	37.8	35.5	36.7	0.24
12:00	12:30	20.0	N	0:30	17.04	17.22	2.16	30	13.9	35.5	33.4	34.4	0.24
12:30	13:00	20.0	N	0:30	17.22	17.40	2.16	30	13.9	33.4	31.2	32.3	0.25
13:00	13:30	20.0	N	0:30	17.40	17.57	2.04	30	14.7	31.2	29.2	30.2	0.25
13:30	14:00	20.0	N	0:30	17.57	17.73	1.92	30	15.6	29.2	27.2	28.2	0.25
14:00	14:30	20.0	N	0:30	17.73	17.88	1.80	30	16.7	27.2	25.4	26.3	0.25
14:30	15:00	20.0	N	0:30	17.88	18.02	1.68	30	17.9	25.4	23.8	24.6	0.25
15:00	15:30	20.0	N	0:30	18.02	18.15	1.56	30	19.2	23.8	22.2	23.0	0.25
15:30	16:00	20.0	N	0:30	18.15	18.27	1.44	30	20.8	22.2	20.8	21.5	0.25
Recommended for Design:										**Infiltration Rate**			**0.24**

SALEM engineering group, inc.

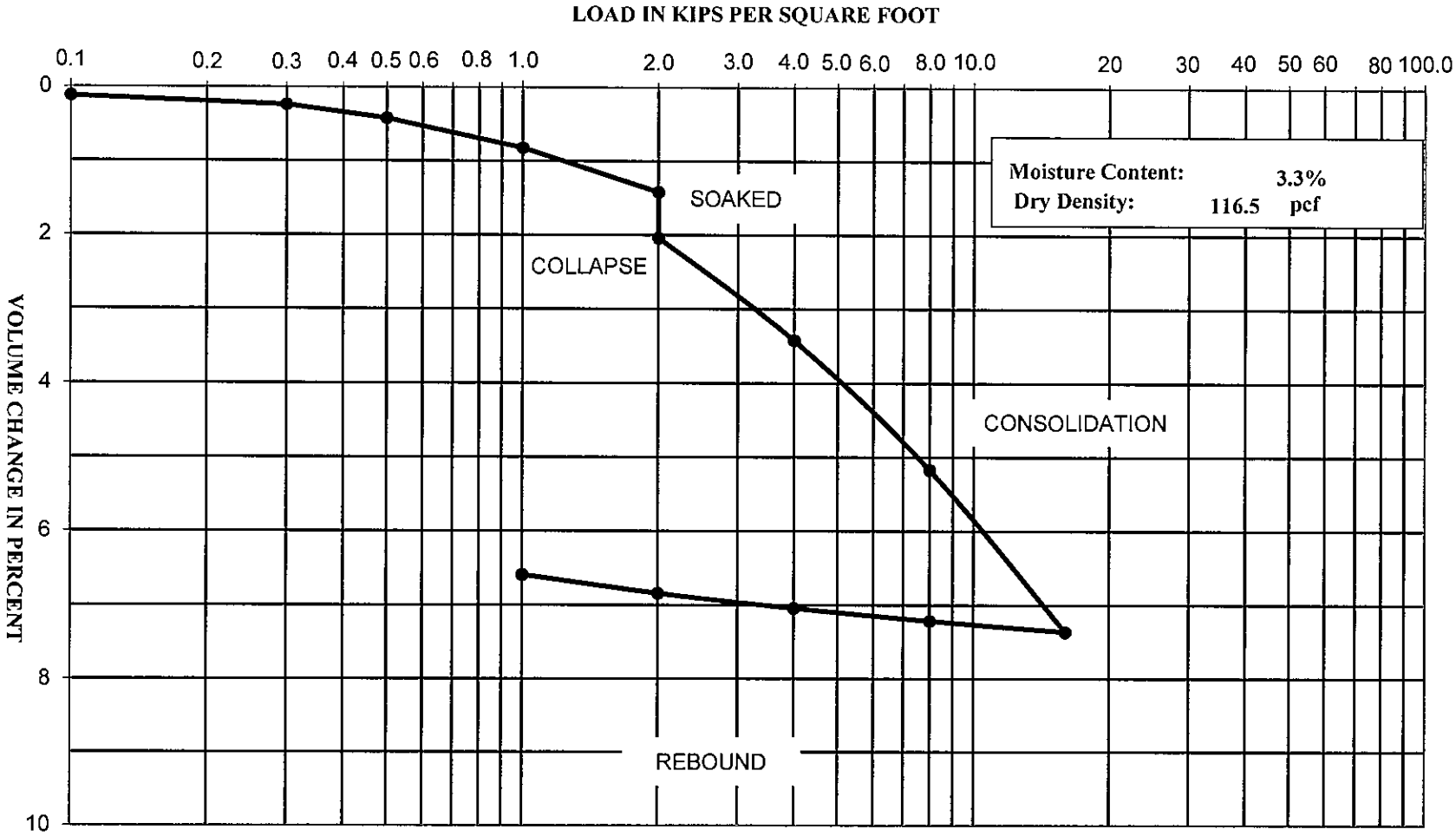
APPENDIX

B

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM), Caltrans, or other suggested procedures. Selected samples were tested for in-situ dry density and moisture content, corrosivity, consolidation, shear strength, expansion index, maximum density and optimum moisture content, and grain size distribution. The results of the laboratory tests are summarized in the following figures.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D 2435



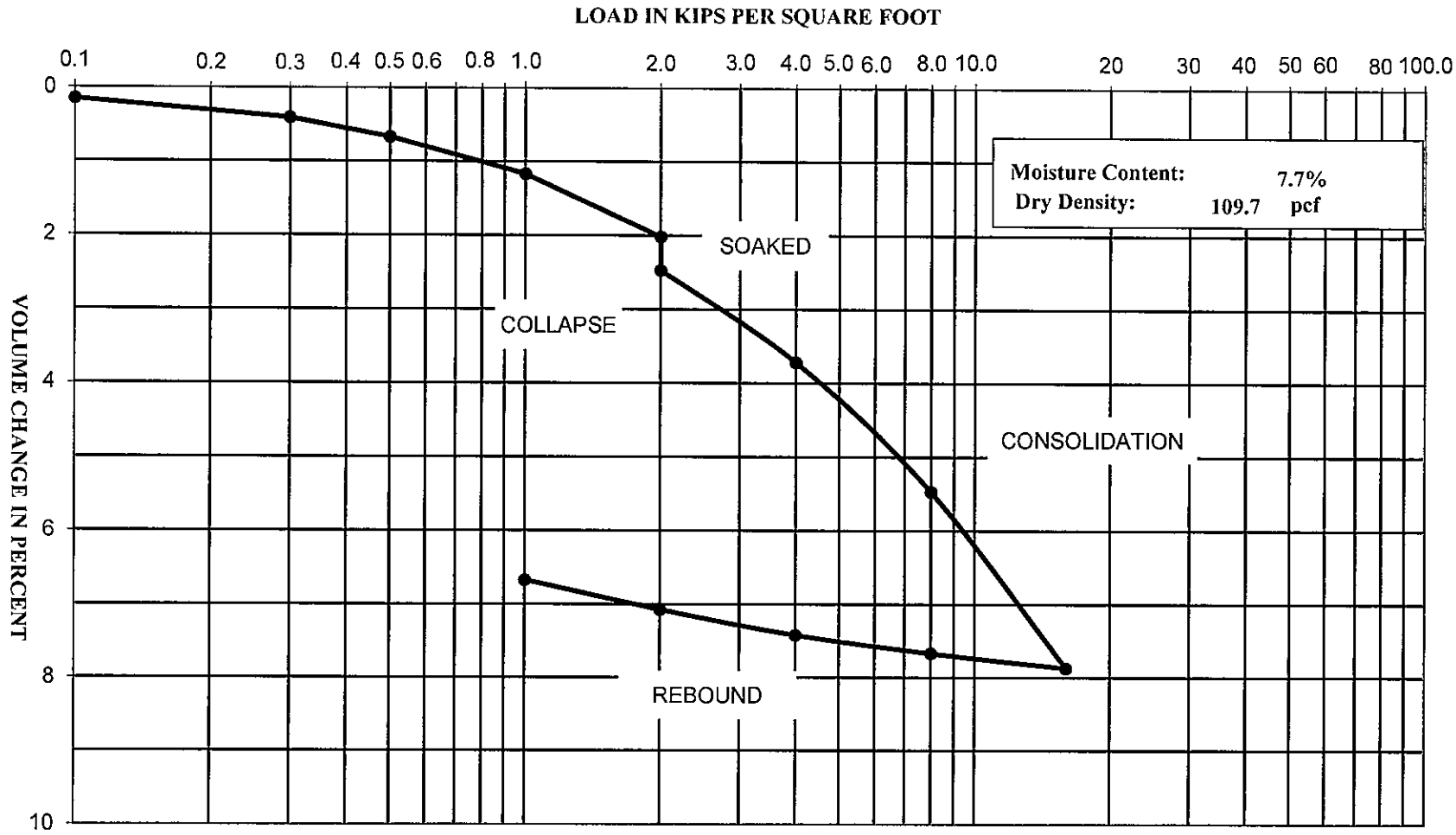
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 2'

SALEM engineering group, inc.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D 2435



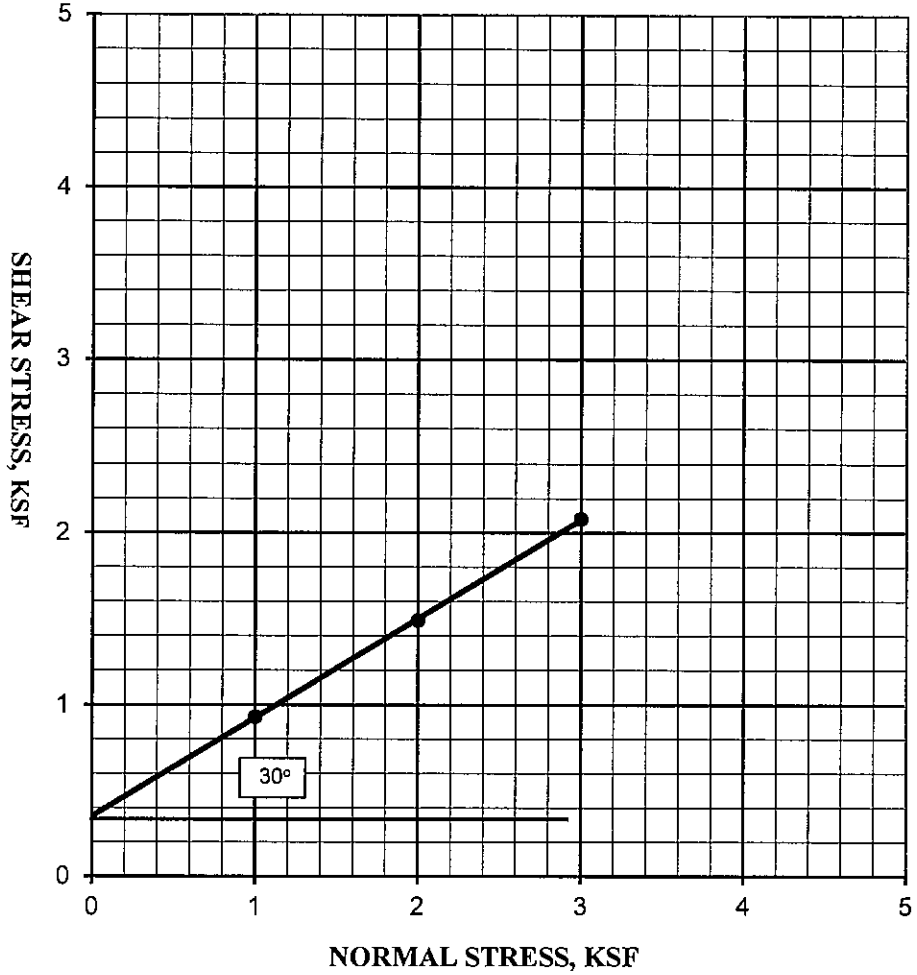
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 5'

SALEM engineering group, inc.

SHEAR STRENGTH DIAGRAM
(DIRECT SHEAR)
ASTM D - 3080



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 5'
Soil Type:

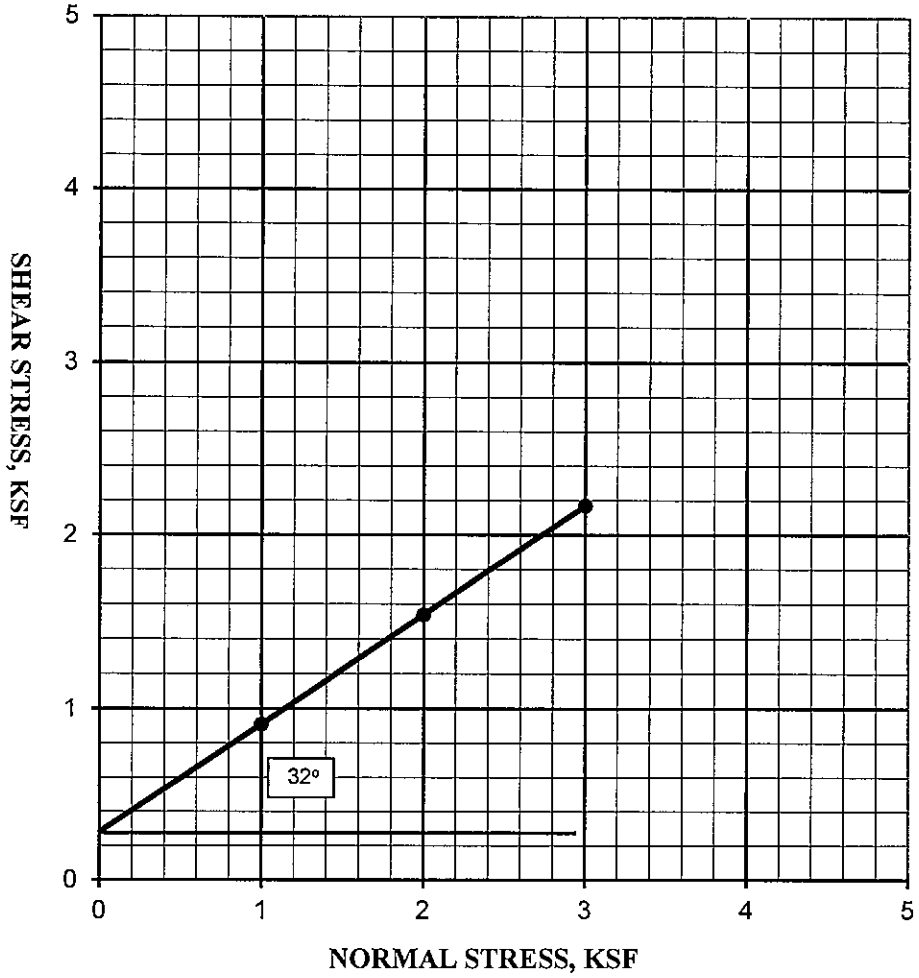
Friction Angle: 30 degrees
Cohesion: 350 psf

Moisture Content 8.1%

Dry Density 112.7 pcf

SALEM
engineering group, inc.

SHEAR STRENGTH DIAGRAM
(DIRECT SHEAR)
ASTM D - 3080



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 2'
Soil Type:

Friction Angle: 32 degrees
Cohesion: 280 psf

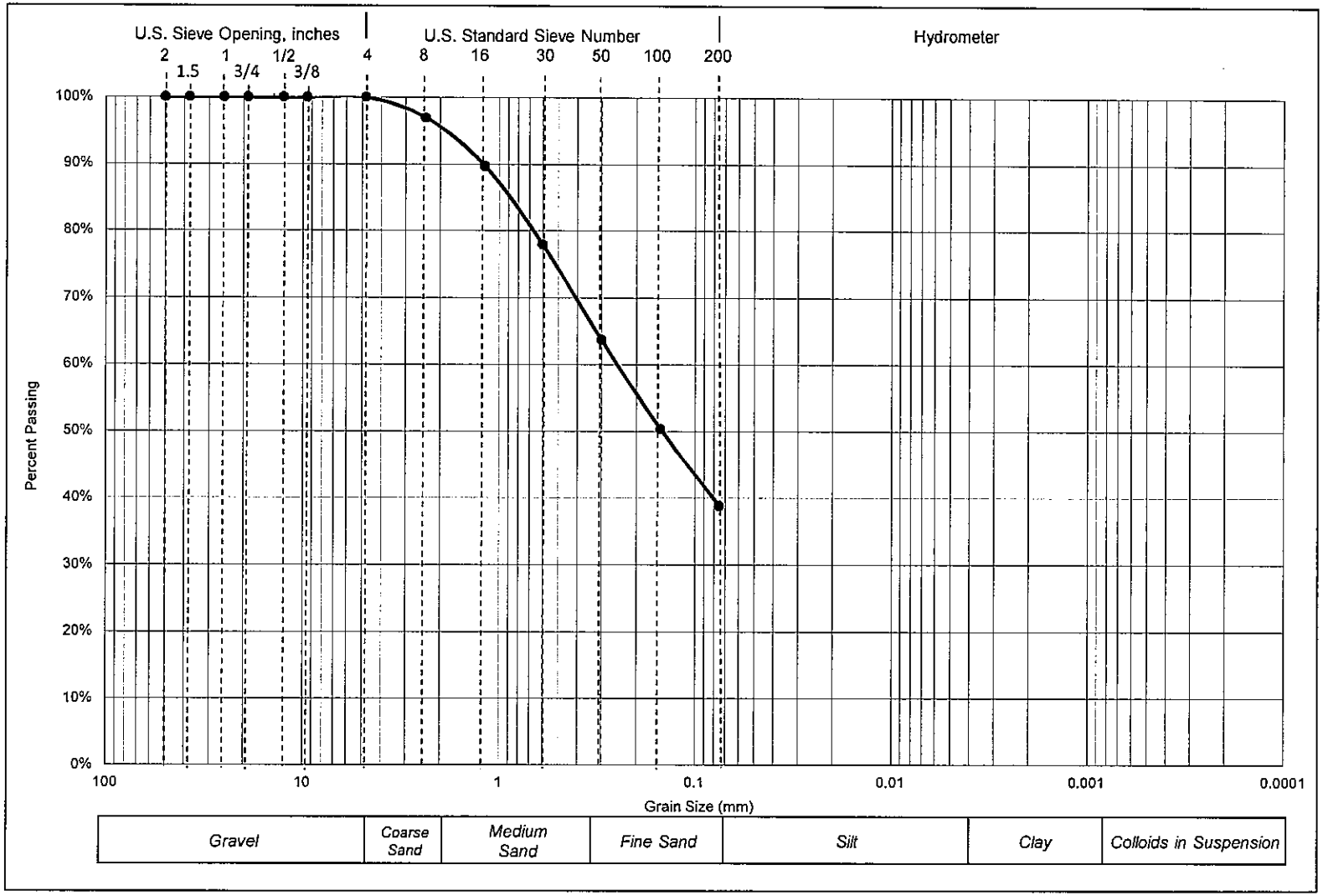
Moisture Content 3.8%

Dry Density 108.7 pcf

SALEM
engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 2'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

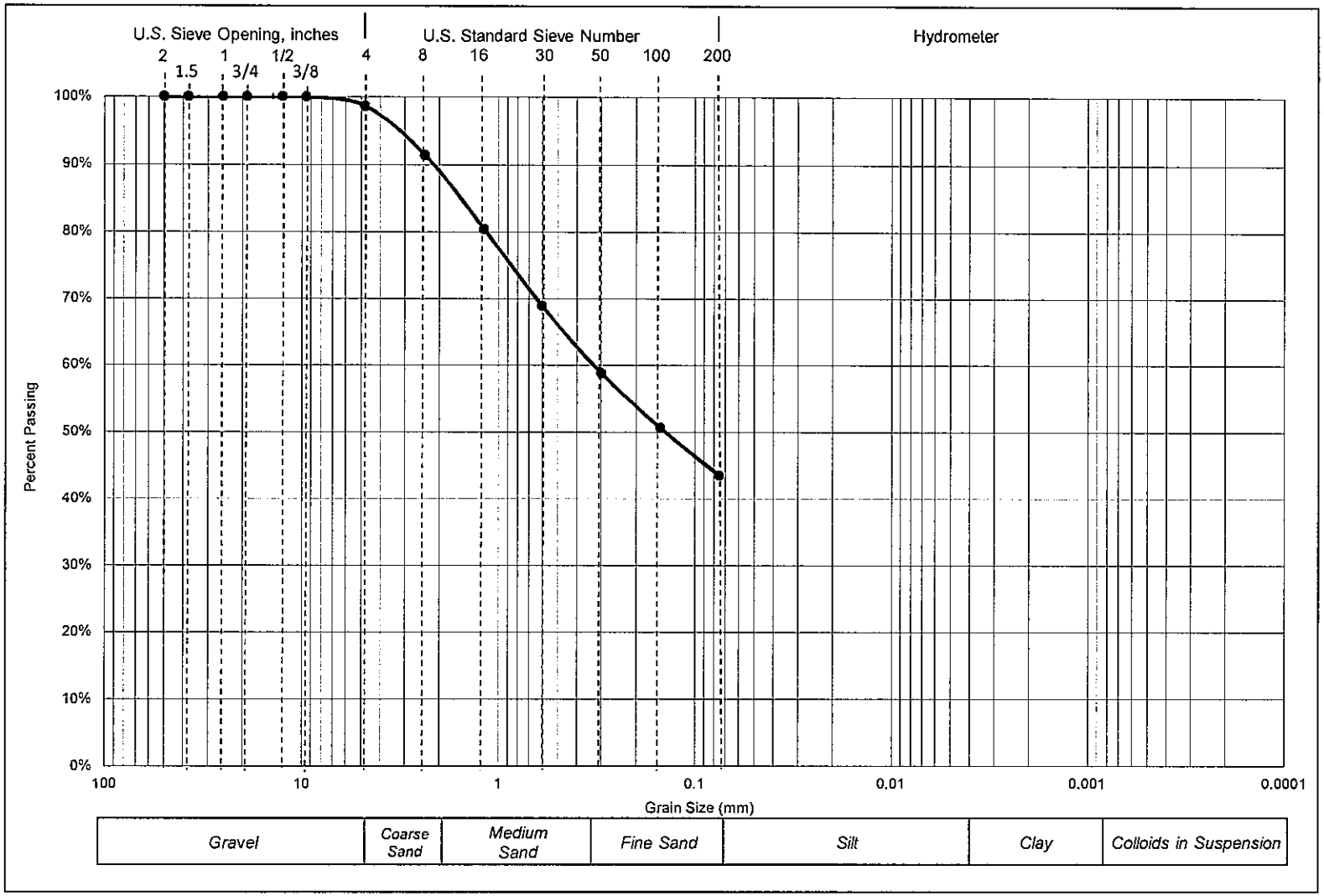
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	100.0%
No. 8	2.36	97.0%
No. 16	1.18	89.7%
No. 30	0.6	78.0%
No. 50	0.3	63.7%
No. 100	0.15	50.3%
No. 200	0.075	38.85%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 5'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

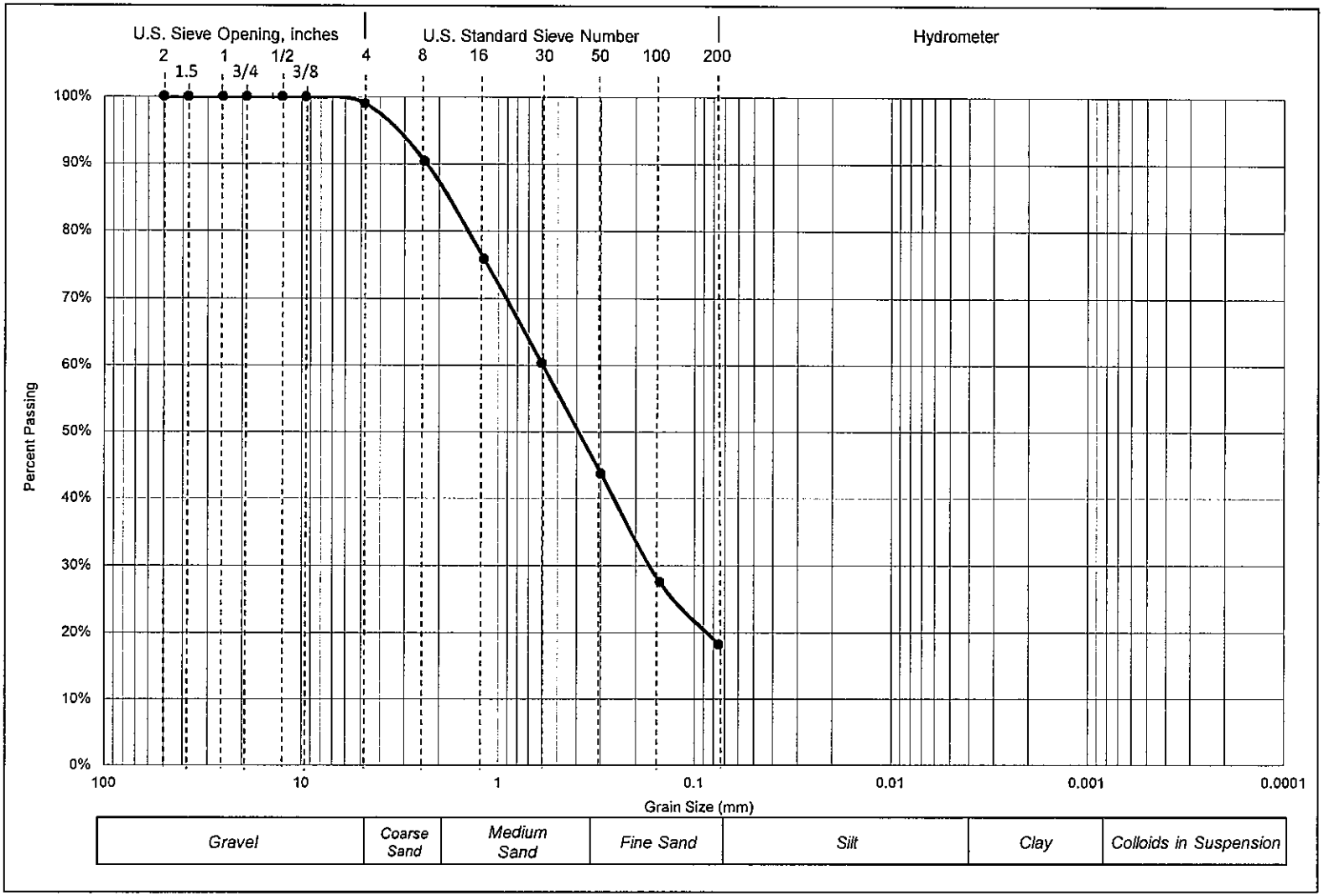
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	98.6%
No. 8	2.36	91.4%
No. 16	1.18	80.4%
No. 30	0.6	68.9%
No. 50	0.3	58.8%
No. 100	0.15	50.6%
No. 200	0.075	43.49%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 10'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

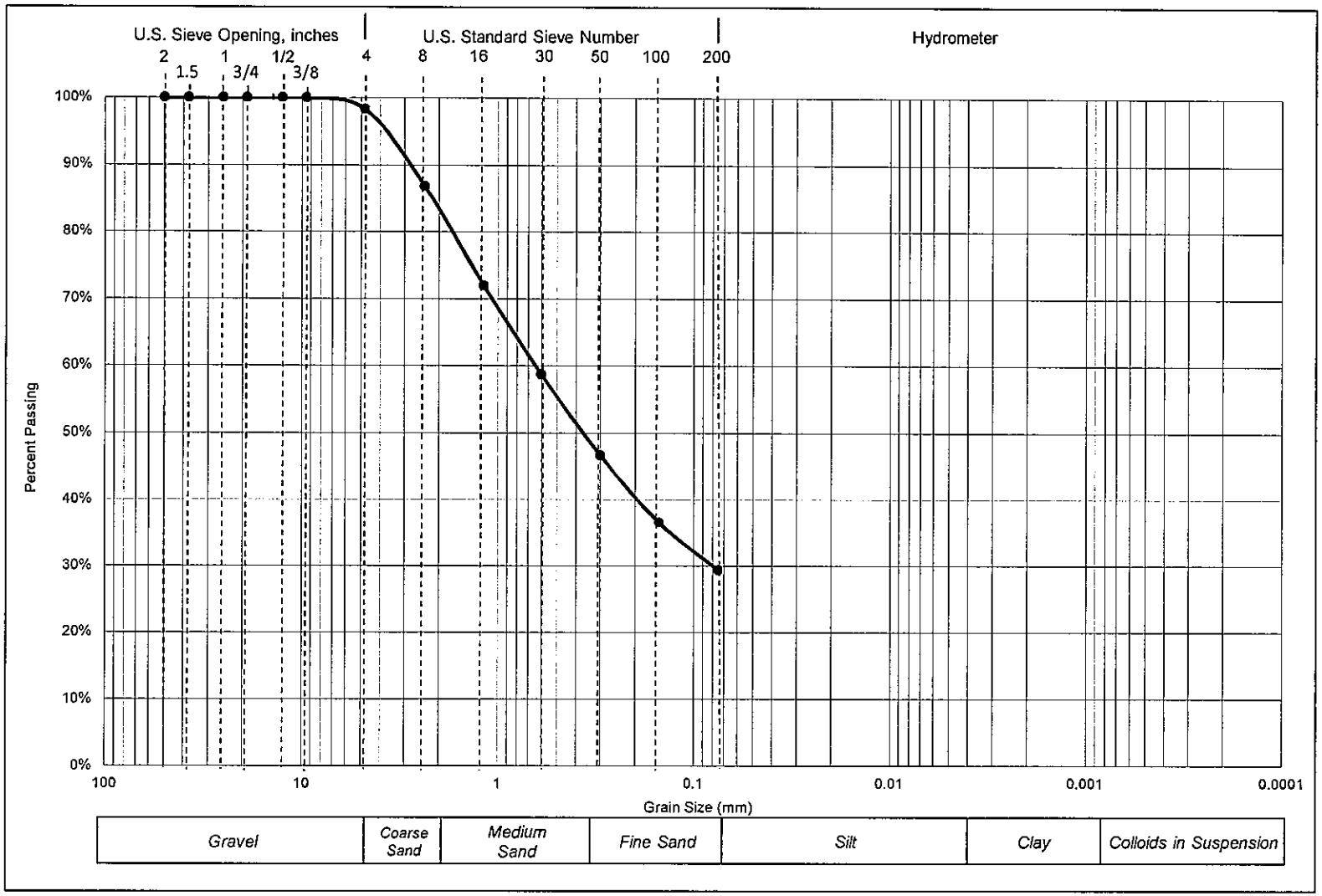
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.0%
No. 8	2.36	90.3%
No. 16	1.18	75.9%
No. 30	0.6	60.3%
No. 50	0.3	43.7%
No. 100	0.15	27.5%
No. 200	0.075	18.19%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 15'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

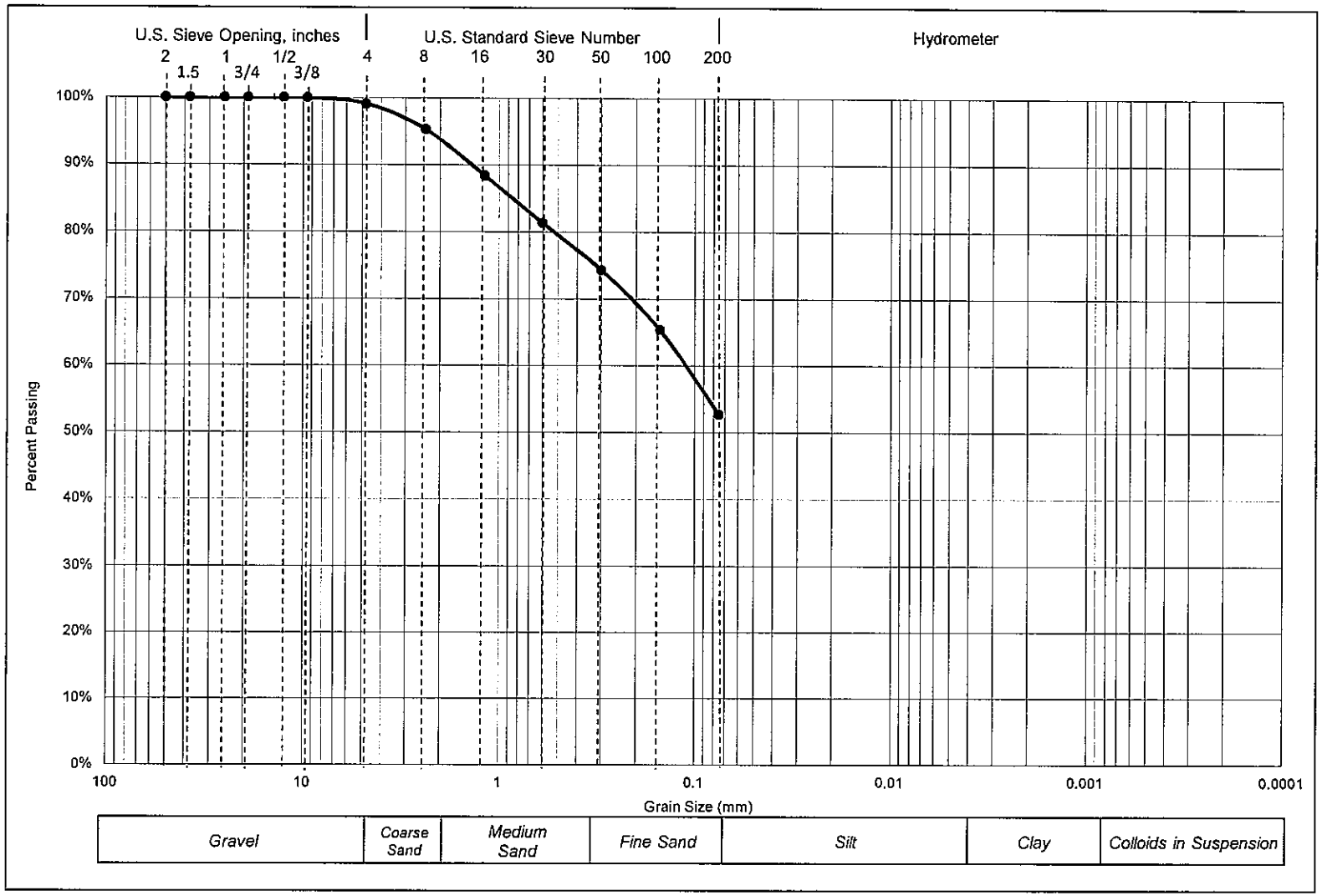
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	98.3%
No. 8	2.36	86.8%
No. 16	1.18	71.9%
No. 30	0.6	58.7%
No. 50	0.3	46.7%
No. 100	0.15	36.6%
No. 200	0.075	29.40%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 15'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 20'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

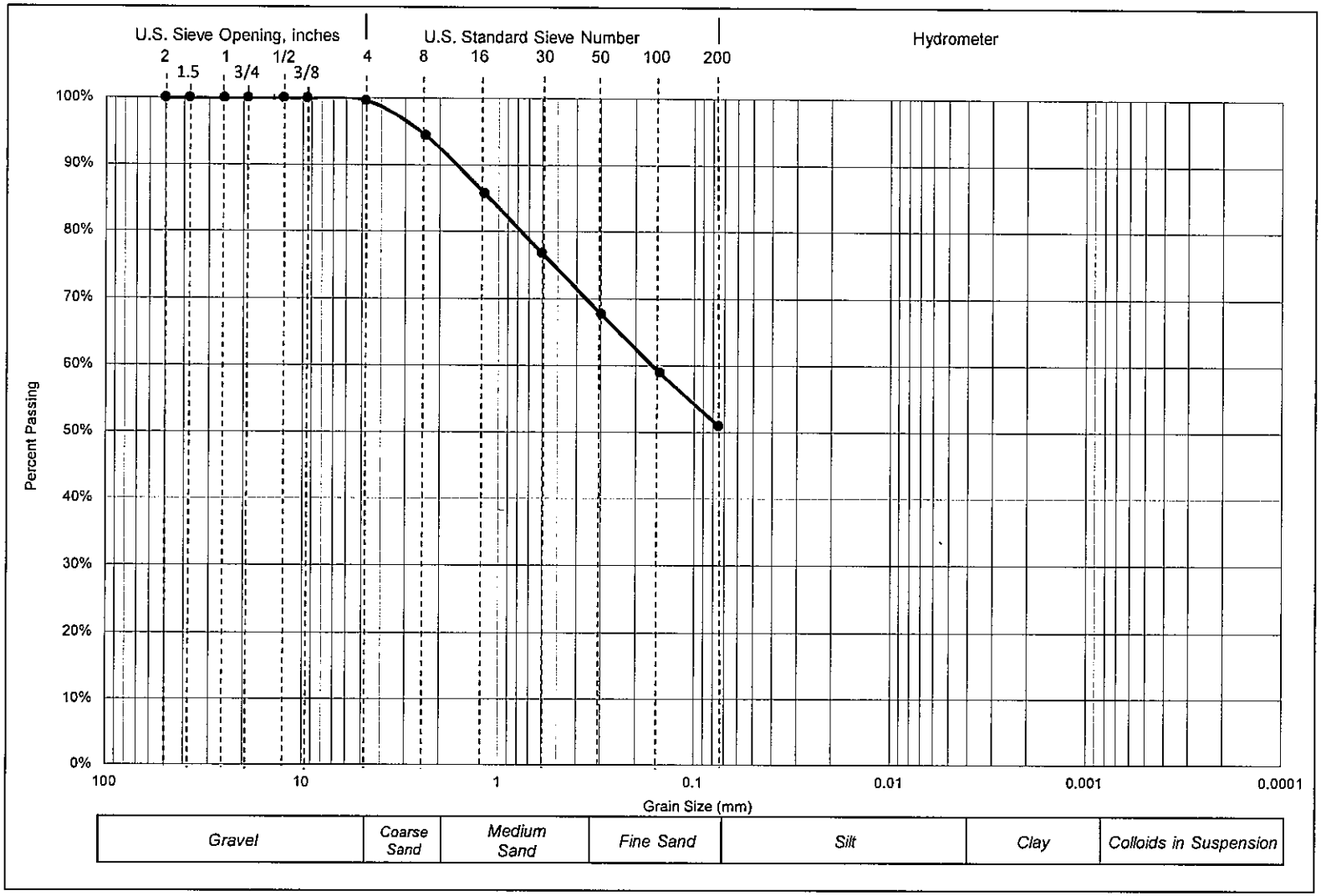
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.1%
No. 8	2.36	95.2%
No. 16	1.18	88.3%
No. 30	0.6	81.4%
No. 50	0.3	74.3%
No. 100	0.15	65.3%
No. 200	0.075	52.68%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 20'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 25'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

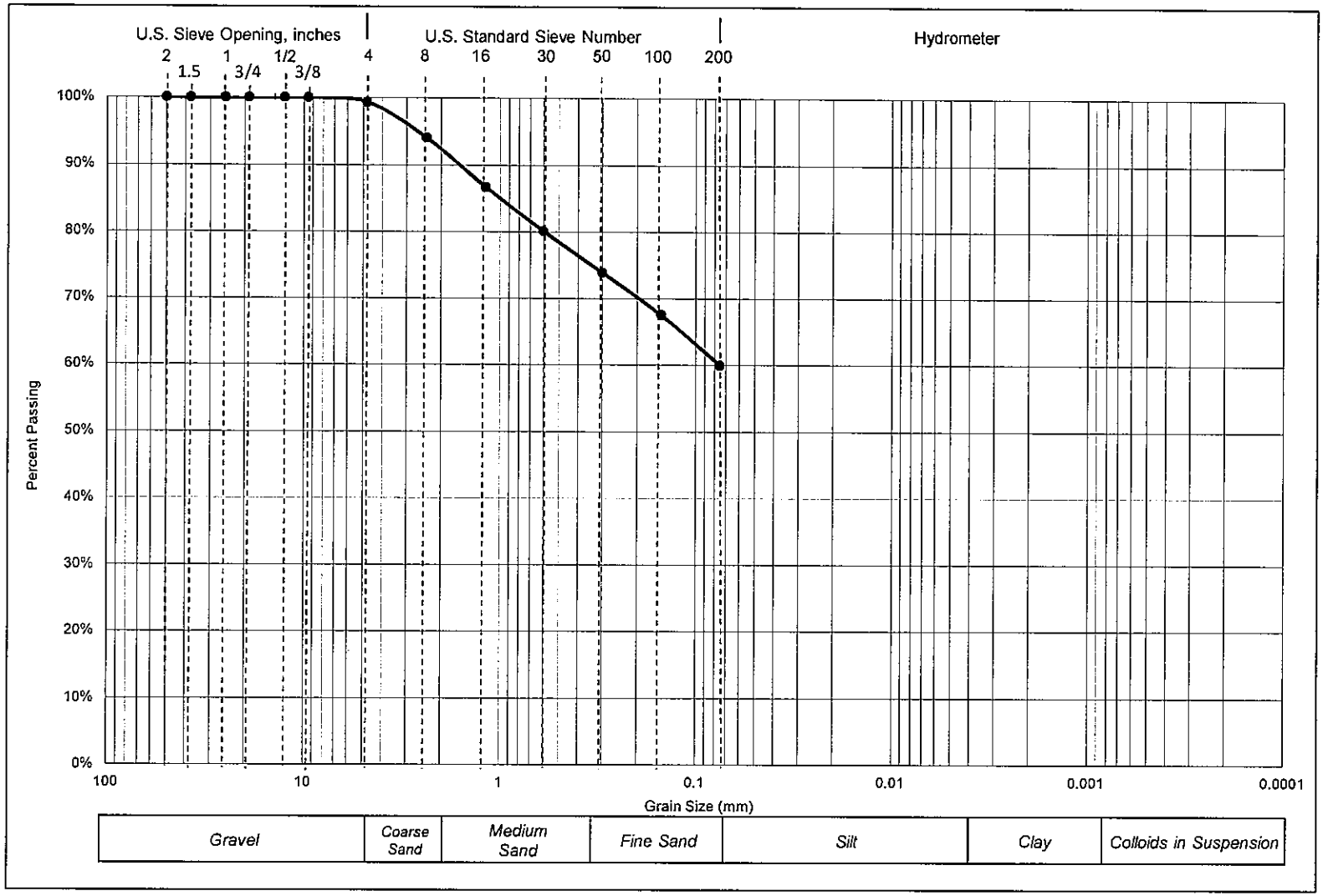
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.6%
No. 8	2.36	94.4%
No. 16	1.18	85.7%
No. 30	0.6	76.8%
No. 50	0.3	67.7%
No. 100	0.15	58.9%
No. 200	0.075	50.96%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 25'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-1 @ 30'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

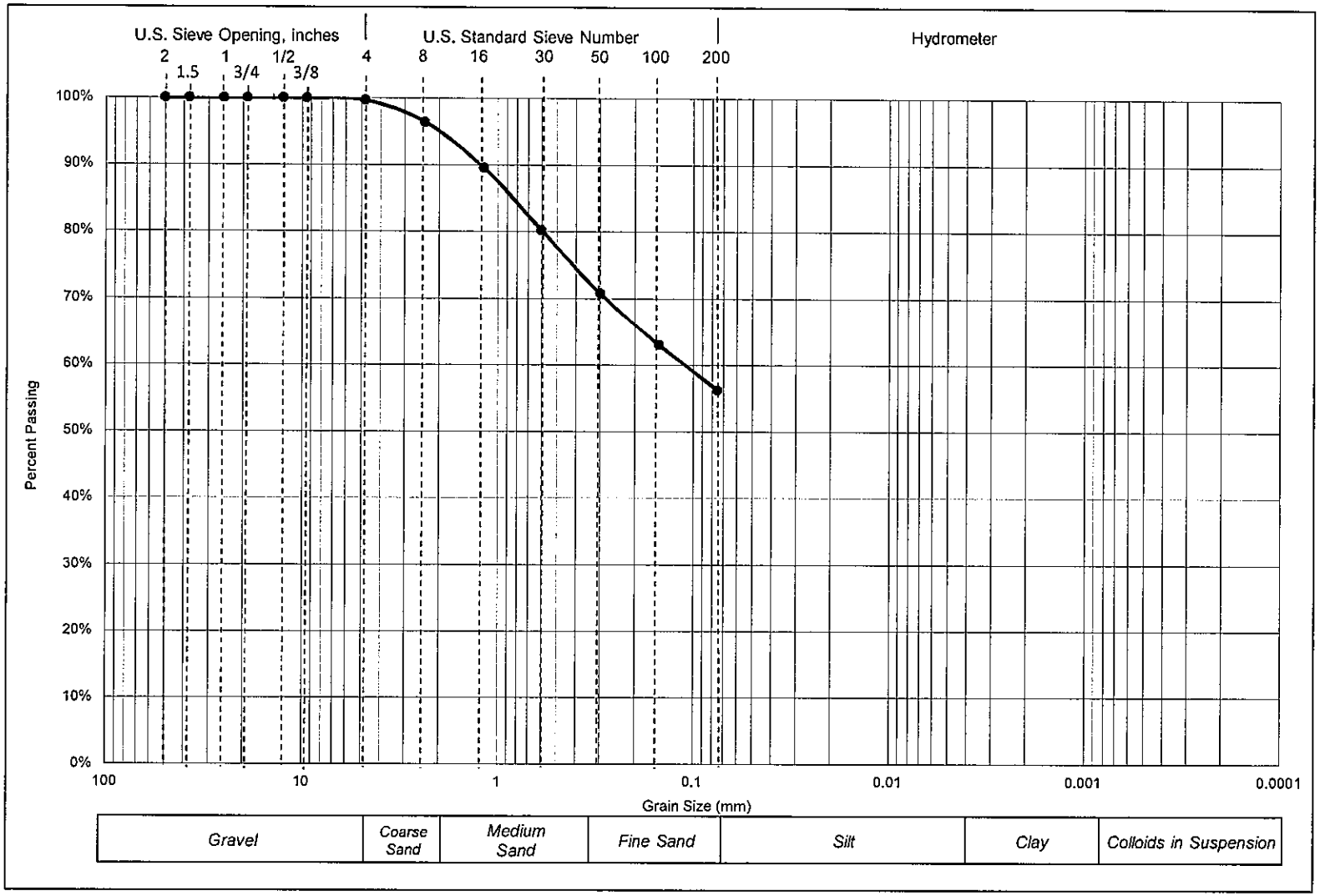
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.4%
No. 8	2.36	94.0%
No. 16	1.18	86.7%
No. 30	0.6	80.1%
No. 50	0.3	73.9%
No. 100	0.15	67.5%
No. 200	0.075	59.93%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-1 @ 30'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

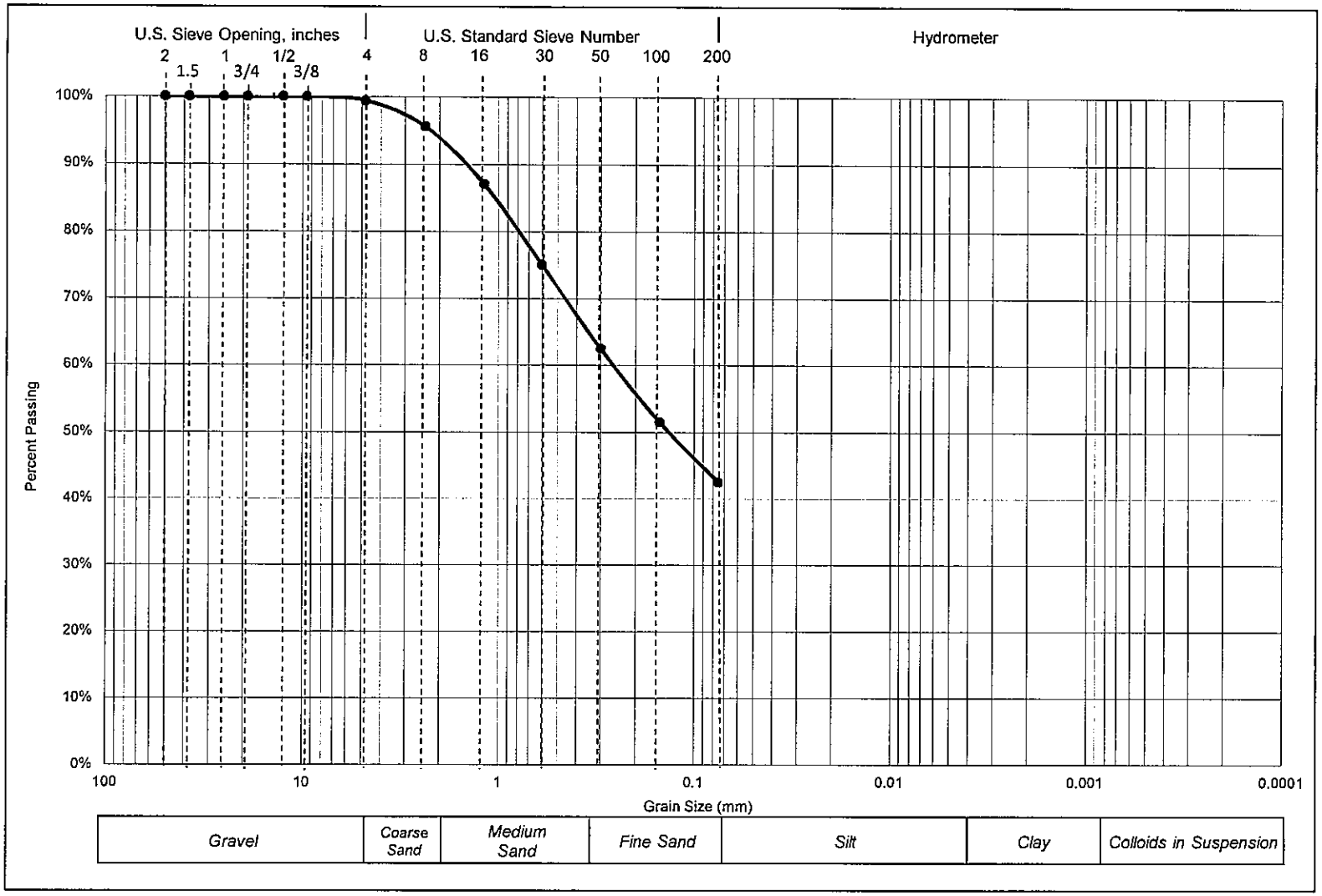
Project Number: 3-216-1097

Boring: B-1 @ 35'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 2'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

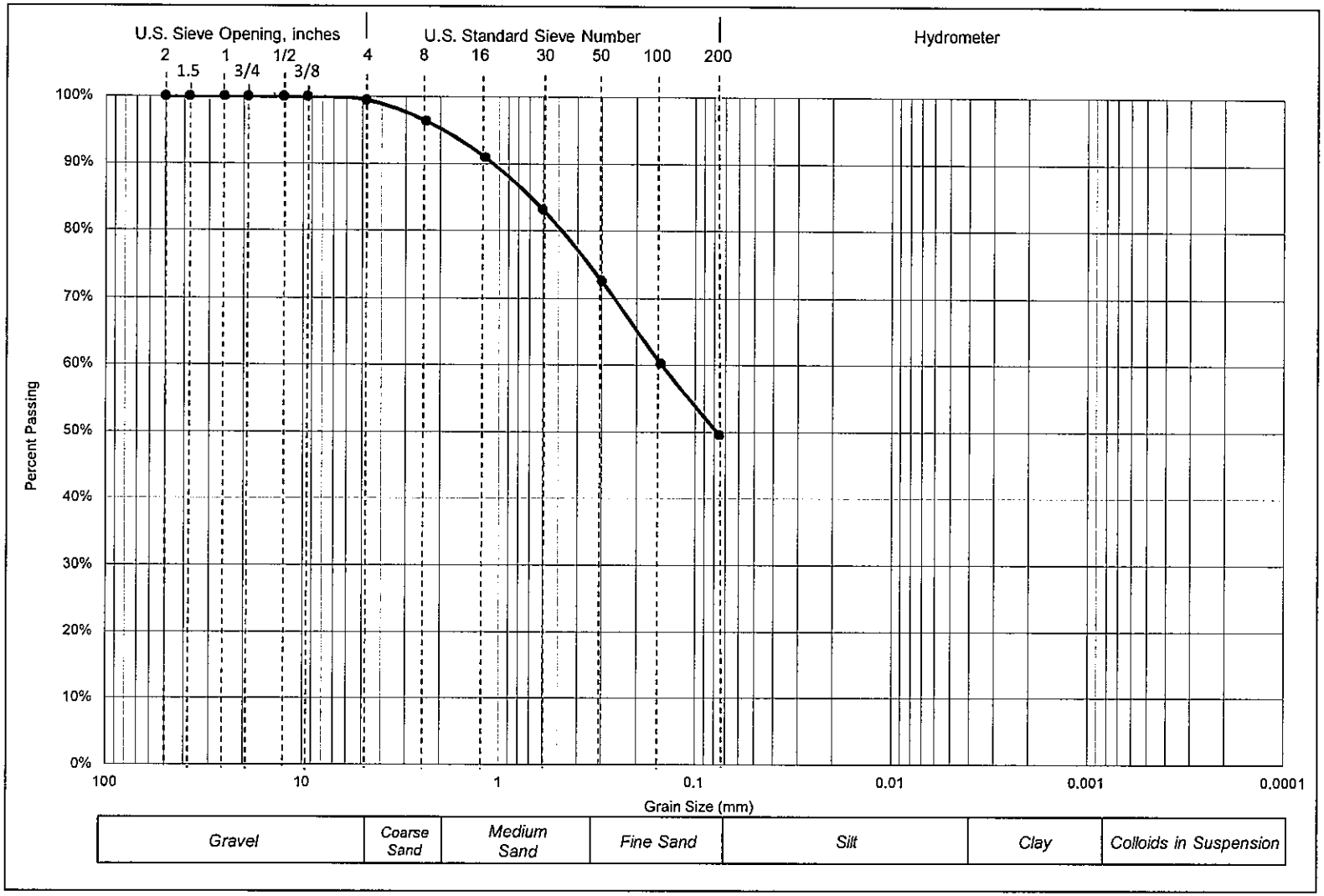
Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.4%
No. 8	2.36	95.6%
No. 16	1.18	87.0%
No. 30	0.6	75.0%
No. 50	0.3	62.4%
No. 100	0.15	51.5%
No. 200	0.075	42.47%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-2 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA

Project Number: 3-216-1097

Boring: B-2 @ 5'

SALEM engineering group, inc.

DRY SIEVE ANALYSIS

ASTM C136 (without Hydrometer)

Sieve Size	Particle Size, mm	Percent Passing
1 1/2-in.	37.5	100.0%
1-in.	25	100.0%
3/4-in.	19	100.0%
1/2-in.	12.5	100.0%
3/8-in.	9.5	100.0%
No. 4	4.75	99.5%
No. 8	2.36	96.4%
No. 16	1.18	90.9%
No. 30	0.6	83.1%
No. 50	0.3	72.5%
No. 100	0.15	60.2%
No. 200	0.075	49.53%

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Boring: B-2 @ 5'

SALEM engineering group, inc.

EXPANSION INDEX TEST
ASTM D 4829 / UBC Std. 29-2

Project Number: 3-216-1097
Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Date: 10/18/2016
Sample location/ Depth: B-1@ 0'-3'
Sample Number: 1
Soil Classification: Silty SAND (SM) with trace clay

Trial #	1	2	3
Weight of Soil & Mold, gms	619.5		
Weight of Mold, gms	186.7		
Weight of Soil, gms	432.8		
Wet Density, Lbs/cu.ft.	130.5		
Weight of Moisture Sample (Wet), gms	300.0		
Weight of Moisture Sample (Dry), gms	279.8		
Moisture Content, %	7.2		
Dry Density, Lbs/cu.ft.	121.7		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	50.8		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	--	--	--	--	0.0110

Expansion Index $_{measured}$ = 11

Expansion Index $_{50}$ = 11.3

Expansion Index = **11**

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering grou

CHEMICAL ANALYSIS

SO_4 - Modified Caltrans 417 & Cl - Modified Caltrans 417/422

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Date: 10/19/2016
Soil Classification: Silty SAND (SM) with trace clay

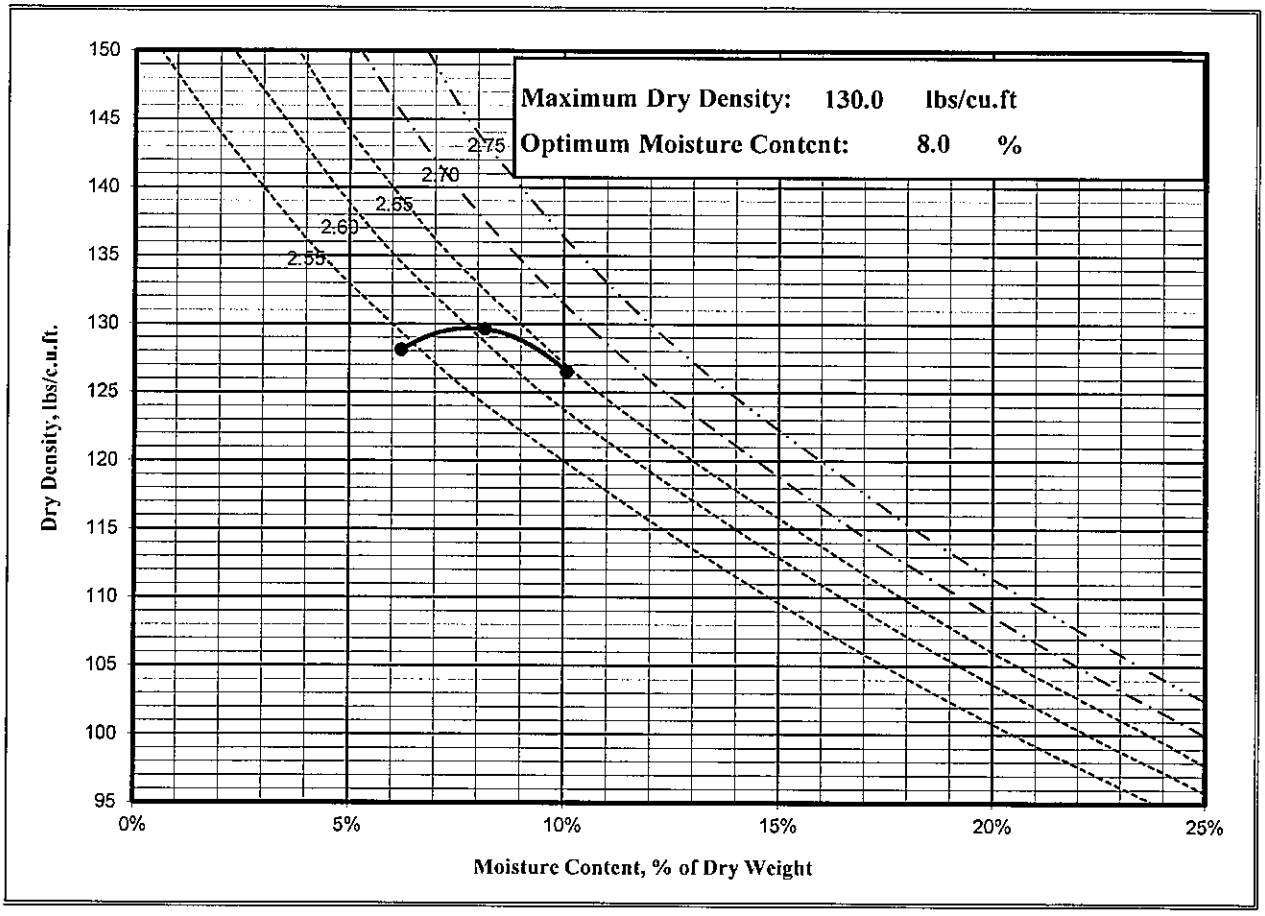
Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-1 @ 0' - 3'	143 mg/Kg	164 mg/Kg	7.2
1b.	B-1 @ 0' - 3'	146 mg/Kg	166 mg/Kg	7.2
1c.	B-1 @ 0' - 3'	146 mg/Kg	167 mg/Kg	7.2
Average:		**145 mg/Kg**	**166 mg/Kg**	7.2

SALEM engineering group, inc.

LABORATORY COMPACTION CURVE
ASTM - D1557, D698

Proposed Water Drops Carwash, Near Sunnymead Blvd. & Heacock St, Moreno Valley,CA
Project Number: 3-216-1097
Date Tested: 10/18/2016
Sample Location: B-1@ 0'-3'
Soil Classification: Silty SAND (SM) with trace clay
Sample/Curve Number: 1
Test Method: 1557 A

	1	2	3
Weight of Moist Specimen & Mold, gm	4360.5	4374.8	4312.3
Weight of Compaction Mold, gm	2257.1	2257.1	2257.1
Weight of Moist Specimen, gm	2103.4	2117.7	2055.2
Volume of mold, cu. ft.	0.0333	0.0333	0.0333
Wet Density, lbs/cu.ft.	139.3	140.2	136.1
Weight of Wet (Moisture) Sample, gm	200.0	200.0	200.0
Weight of Dry (Moisture) Sample, gm	181.7	184.9	188.3
Moisture Content, %	10.1%	8.2%	6.2%
Dry Density, lbs/cu.ft.	126.5	129.6	128.1



SALEM engineering group, inc.

APPENDIX C
GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less that 95 percent of relative compaction (90 percent for fine-grained cohesive soils) based on ASTM D1557 Test Method (latest edition), UBC or CAL-216, or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and recompacted to 95 percent relative compaction (90 percent for fine-grained cohesive soils).

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and recompacted to 95 percent relative compaction (90 percent for fine-grained cohesive soils). All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed. The term "Standard Specifications": hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition) or California Test Method 216 (CAL-216), as applicable.

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent (90 percent for fine-grained cohesive soils) based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class II material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Santa Ana Watershed - BMP Design Volume, V_{BMP}

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: Civil Trans Inc. Date: 11/20/2017

Designed by: Jay Aslam, P.E. Case No: PEN16-0113

Company Project Number/Name: 450-269P1, Water Drops Car Wash Imp

BMP Identification

BMP NAME / ID: Biofiltration Basin/BMP 1

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)
D/1	5,490	Roofs	1	0.89	4897.1			
D/2	2,400	Concrete or Asphalt	1	0.892	2140.8			
D/3	4,295	Mixed Surface Types	0.6	0.40893	1756.3			
D/4	24,210	Concrete or Asphalt	1	0.892	21595.3			
D/5	17232	Concrete or Asphalt	1	0.892	15370.9			
D/6	2,480	Mixed Surface Types	0.6	0.40893	1014.1			
	56107	Total			46774.5	0.65	2533.6	2,960

Notes:

Bioretention Facility - Design Procedure	BMP ID: BMP 1	Legend:	Required Entries / Calculated Cells

Company Name: CIVIL TRANS INC Date: 11/20/2017

Designed by: Jay Aslam, P.E. County/City Case No.: PEN16-0113

Design Volume

Enter the area tributary to this feature A_T = 1.28 acres

Enter V_{BMP} determined from Section 2.1 of this Handbook V_{BMP} = 2,534 ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) 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 = 40.0 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 = 1,710 ft^2

Proposed Surface Area A= 2,000 ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility z = 4 :1

Diameter of Underdrain 6 inches

Longitudinal Slope of Site (3% maximum) 1 %

6" Check Dam Spacing 25 feet

Describe Vegetation: Natural Grasses

Notes: Landscape area per Landscape Plans

Appendix 7: Hydromodification

Supporting Detoil Relating to Hydrologic Conditions of Concern

CIVIL TRANS INC.
732 N. Diamond Bar Blvd.
Suite No. 128
Diamond Bar, CA. 91765
(909) 396-1131 FAX (909) 396-0328

JOB MORENO VALLEY CAR WASH: 450-26 GPI APN: 292-160-023 | 2.m
SHEET NO. 1 OF 10
CALCULATED BY HH DATE 11/12/2017
CHECKED BY JMA DATE 11/12/2017
SCALE

HCOC MITIGATION:

PRE-DEVELOPMENT AND POST-DEVELOPMENT HYDROGRAPHS $Q_{2\text{-YR}}$ PEAK FLOWS ARE PROVIDED ON THE FOLLOWING SHEET. (2 OF 10)

PER CONDITION "C" OF SECTION F.2 HCOC MITIGATION, THE DISCHARGE FLOW RATE FROM THE BIO-FILTRATION BASIN IS LIMITED TO 110% OF THE PRE-DEVELOPMENT $Q_{2\text{-YR}}$ FLOW.

PRE-DEVELOPMENT $Q_{2\text{-YR}}$ FLOW = 0.62 CFS (SHTS 6-10)
POST-DEVELOPMENT $Q_{2\text{-YR}}$ LIMITED DISCHARGE = 110%(0.62) = 0.68 CFS

BIO-FILTRATION BASIN SIZE IS 50'x40' = 2,000 SF [PER Q10/Q2 DRAINAGE MITIGATION]
EFFECTIVE DEPTH = d_E = 1.48'

$V_P = A_P \times d_E$

V_P = 2,000 x 1.48 = 2,960 CF.

V_P = 2,960 CF > V_{POST} = 2,772 CF.

FROM POST-DEV. Q_2 UNIT HYDROGRAPH
V_{POST} = 2,772 CF.

BIO-FILTRATION BASIN OUTFLOW BOX IS PROVIDED WITH 6-INCH DIA. PVC PIPE WHICH HAS THE MAXIMUM FLOW DISCHARGE CAPACITY OF 0.68 CFS AS MENTIONED ABOVE FOR POST-DEV. $Q_{2\text{-YR}}$ LIMITED DISCHARGE. (SHT. 3 OF 10)

BASED ON ABOVE DESCRIBED $Q_{2\text{-YR}}$ HYDROGRAPHS ANALYSIS AND RESPECTIVE CALCULATIONS FOR $Q_{2\text{-YR}}$ POST-DEV. LIMITED OUTFLOW, CONDITION "C" OF SECTION F.2 IS SATISFIED.
HENCE, HCOC CRITERIA IS CONSIDERED MITIGATED

CIVIL TRANS INC.
732 N. Diamond Bar Blvd.
Suite No. 128
Diamond Bar, CA. 91765
(909) 396-1131 FAX (909) 396-0328

JOB MORENO VALLEY CAR WASH : 450 2 GPI APN : 292-160
SHEET NO. 2 OF 10
CALCULATED BY HH DATE 11/12/2017
CHECKED BY JMA DATE 11/12/2017
SCALE

2.m

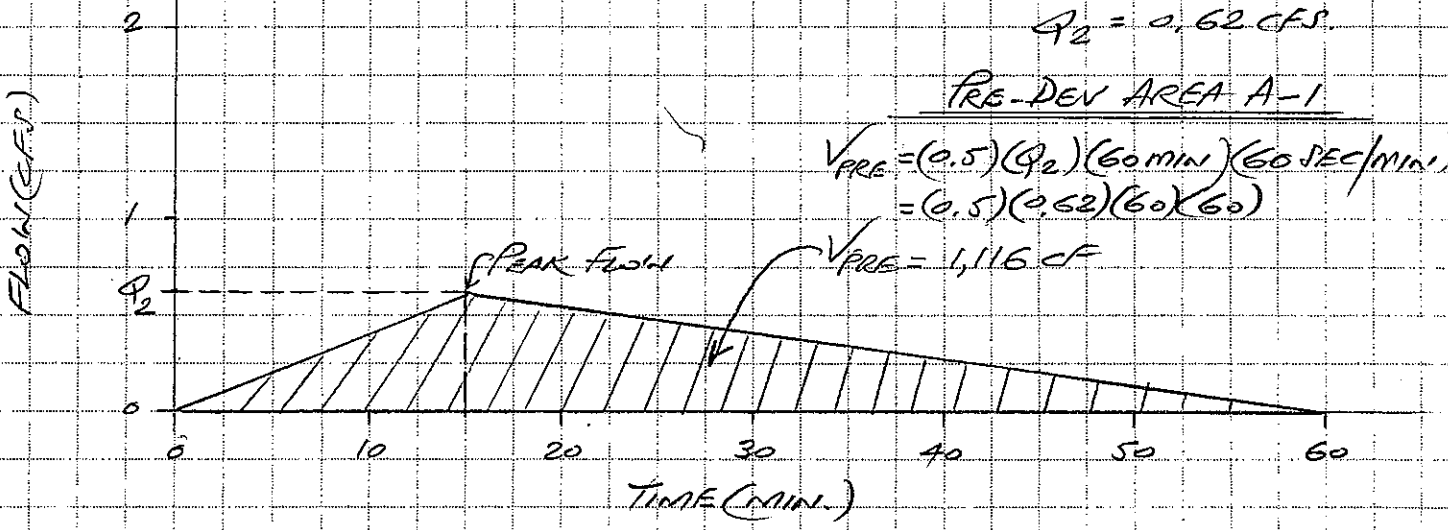
PRE-DEVELOPMENT Q_{2yr} UNIT HYDROGRAPH:

(HYDROLOGY DATA PER SHTS. 6-10)

T_c = 15.0 MIN
Q_2 = 0.62 CFS

PRE-DEV AREA A-1

$V_{PRE} = (0.5)(Q_2)(60\ MIN)(60\ SEC/MIN)$
$= (0.5)(0.62)(60)(60)$



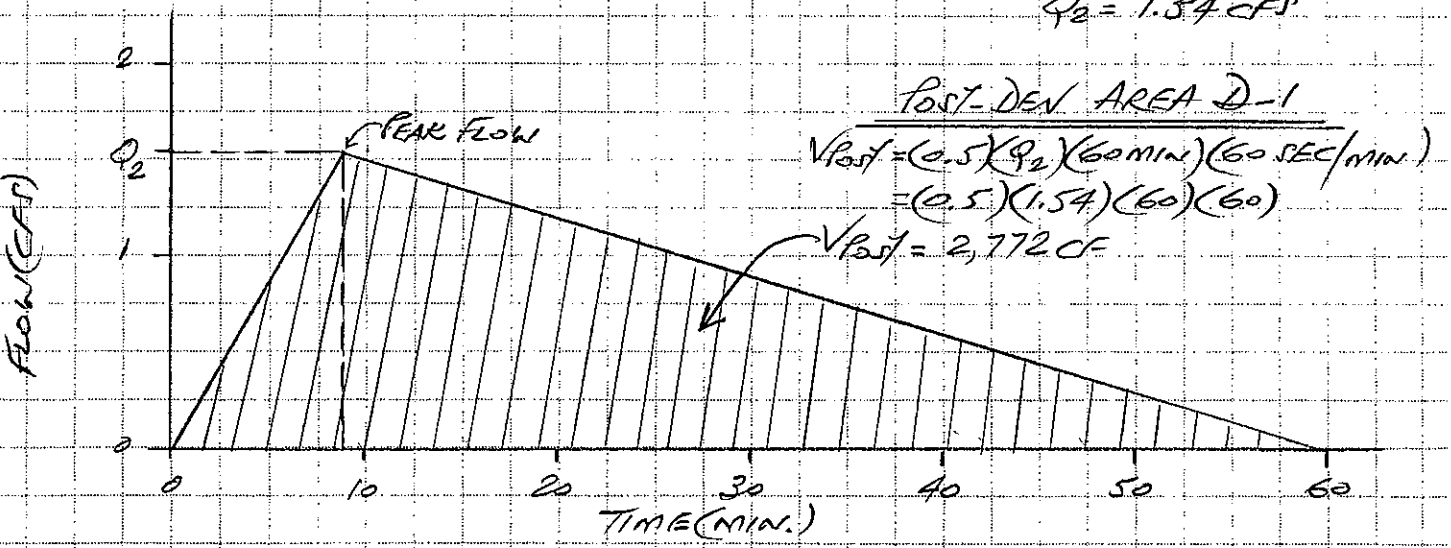
POST-DEVELOPMENT Q_{2yr} UNIT HYDROGRAPH:

(HYDROLOGY DATA PER SHTS. 6-10)

T_c = 9.0 MIN.
Q_2 = 1.54 CFS

POST-DEV AREA D-1

$V_{POST} = (0.5)(Q_2)(60\ MIN)(60\ SEC/MIN)$
$= (0.5)(1.54)(60)(60)$
V_{POST} = 2,772 CF



POST-DEV: Q_2 INCREASE = 1.54 − 0.62 = 0.92 CFS

POST-DEV DISCHARGE LIMITED TO 110% OF PRE-DEV Q_2.
LIMITED DISCHARGE Q_2 = (110%)(0.62 CFS) = 0.68 CFS

3 of 10

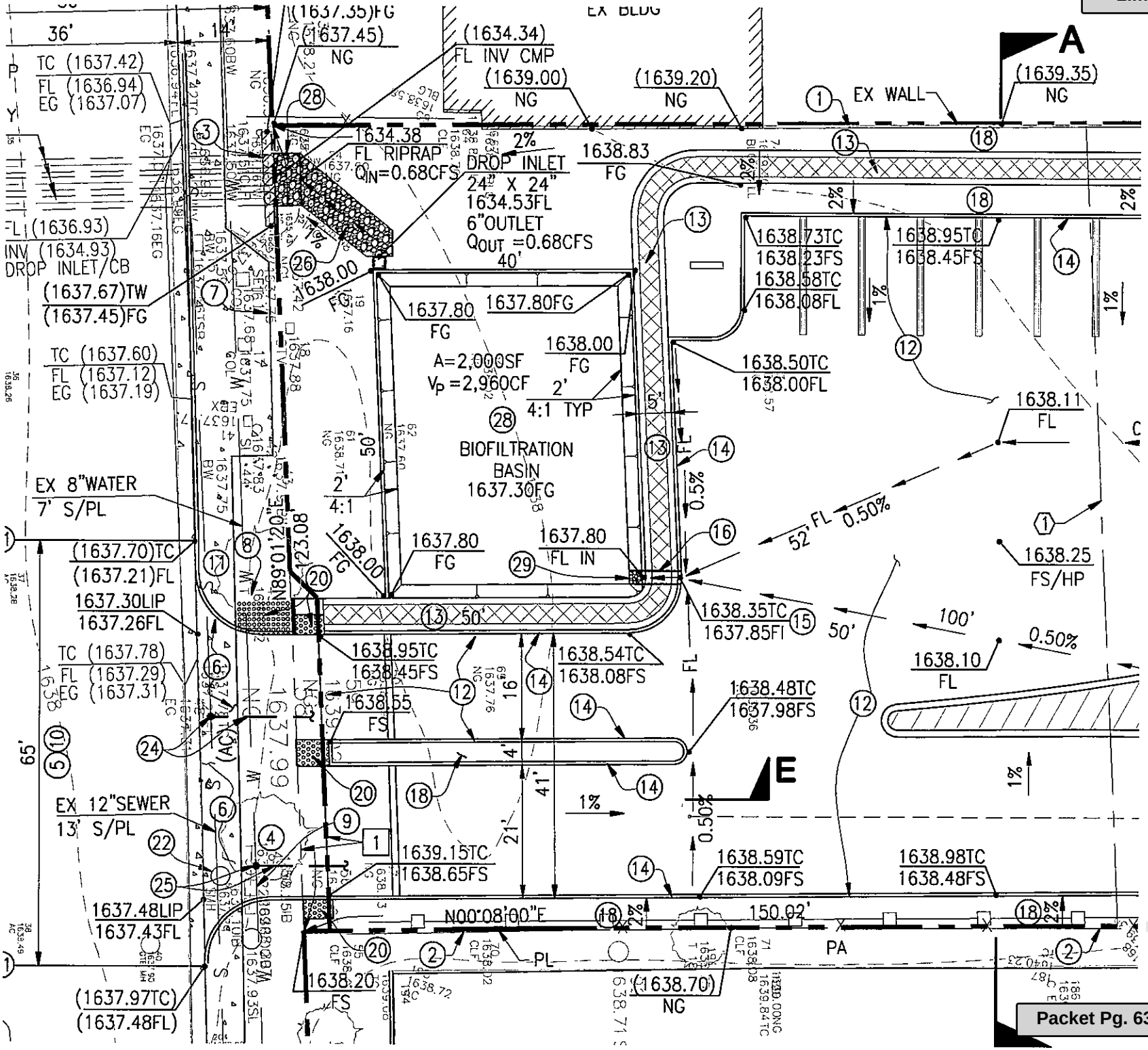
Moreno Valley Carwash

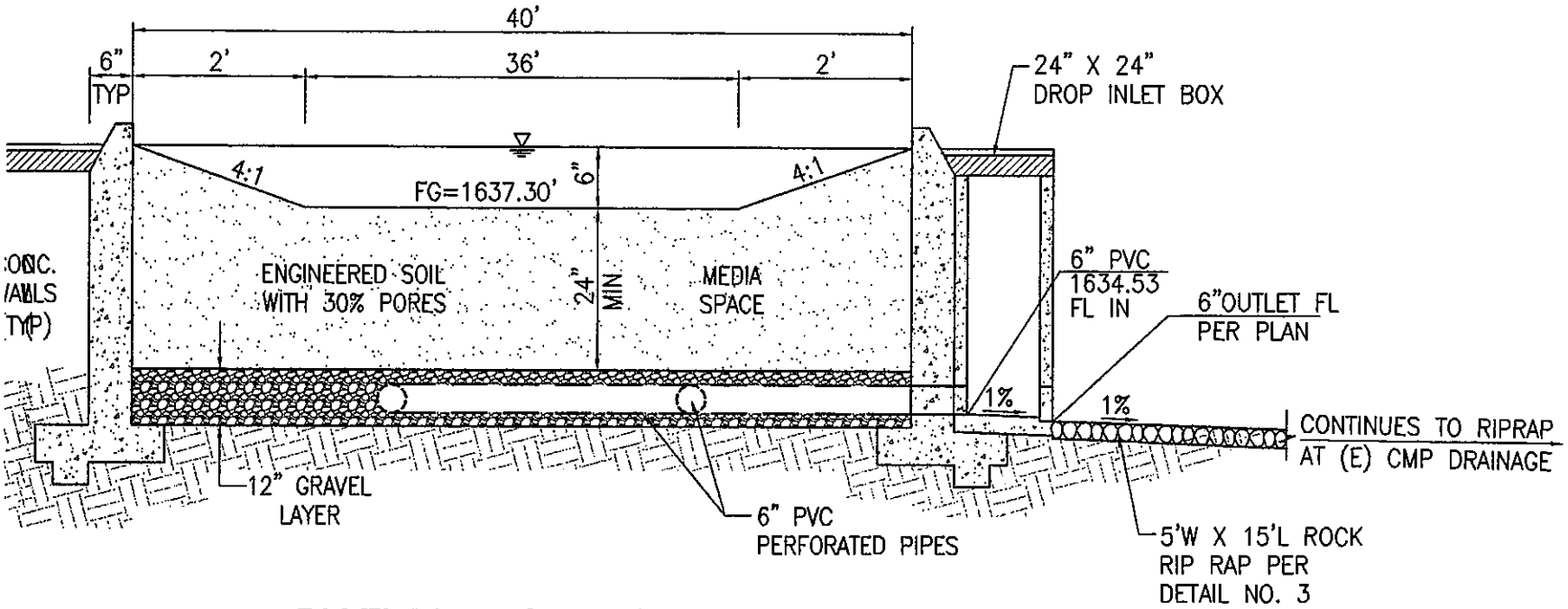
Bio-Filtration Basin Discharge

Sewer Pipes -- English Units

Civil Tools for Windows
(11-13-2017, 18:43:34)

Flowrate (cfs)	Diameter (in)	Friction ()	Slope (%)	Velocity (fps)
0.68	6.10	0.011	1.00	3.40





BIOFILTRATION BASIN - DETAIL 4

NOT TO SCALE

RCFC & WCD HYDROLOGY MANUAL
RATIONAL METHOD CALCULATION FORM

Sheet No. 6 of 10 Sh

PROJECT MORENO VALLEY CAR WASH: APN: 292-160-023

Calculated by HH 11/12/
DATE

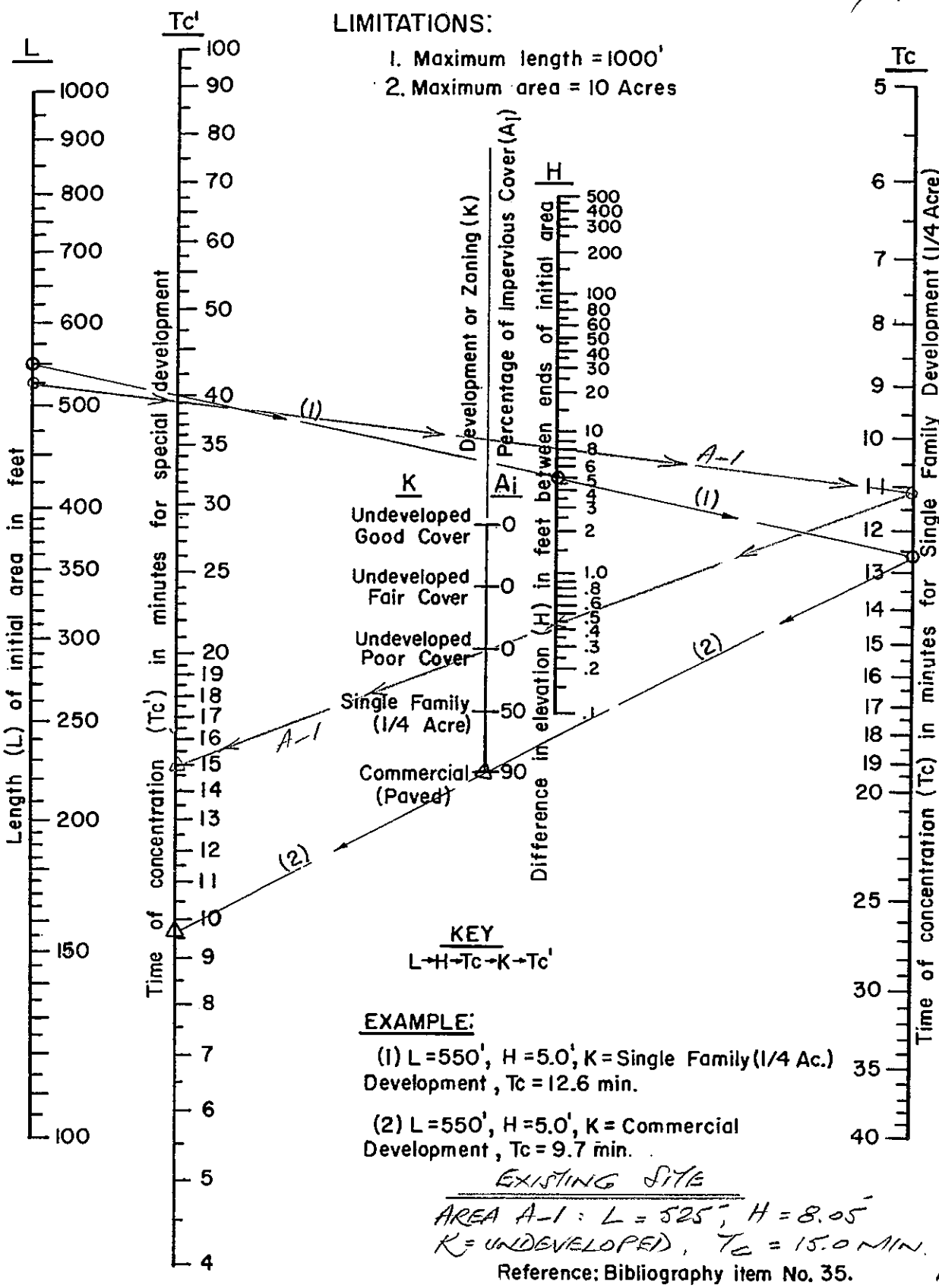
FREQUENCY Q2YR.

Checked by JMA 11/13/
DATE

DRAINAGE AREA	Soil & Development	A Acres	I In/hr.	C	ΔQ CFS	Σ Q CFS	SLOPE	SECTION	v FPS	L FT.	T MIN.	Σ T	REMARKS
	EXISTING SITE												
A-1	B: VACANT LAND	1.68	0.90	0.41	0.62	0.62	0.016	SURFACE FLOW	0.58	525	15.0	15.0	SURFACE FLOW OVER NATURAL GROUND. RUNOFF COLLECTED I (EXIT) 24" CMP AT W'LY PL.
TOTAL EXISTING RUNOFF Q2		1.68			0.62								
	DEVELOPED SITE												
D-1	B: IMPERV.	1.13	1.28	0.86	1.24								SURFACE FLOW OVER IMPERVIOUS CONCRE
	B: PERV.	0.55	1.28	0.42	0.30	1.54	0.010	SURFACE FLOW	1.00	520	9.0	9.0	RUNOFF COLLECTED INTO BIO FILTRATION BASIN WITH CONTROL DISCHARGE Q2 (EXIT
TOTAL DEVELOPED RUNOFF Q2		1.68			1.54								

PLATE D-2

7 OF 10



EXAMPLE:

(1) L = 550', H = 5.0', K = Single Family (1/4 Ac.) Development, Tc = 12.6 min.

(2) L = 550', H = 5.0', K = Commercial Development, Tc = 9.7 min.

EXISTING SITE

AREA A-1 : L = 525', H = 8.05'

K = UNDEVELOPED, Tc = 15.0 MIN.

Reference: Bibliography item No. 35.

12/2

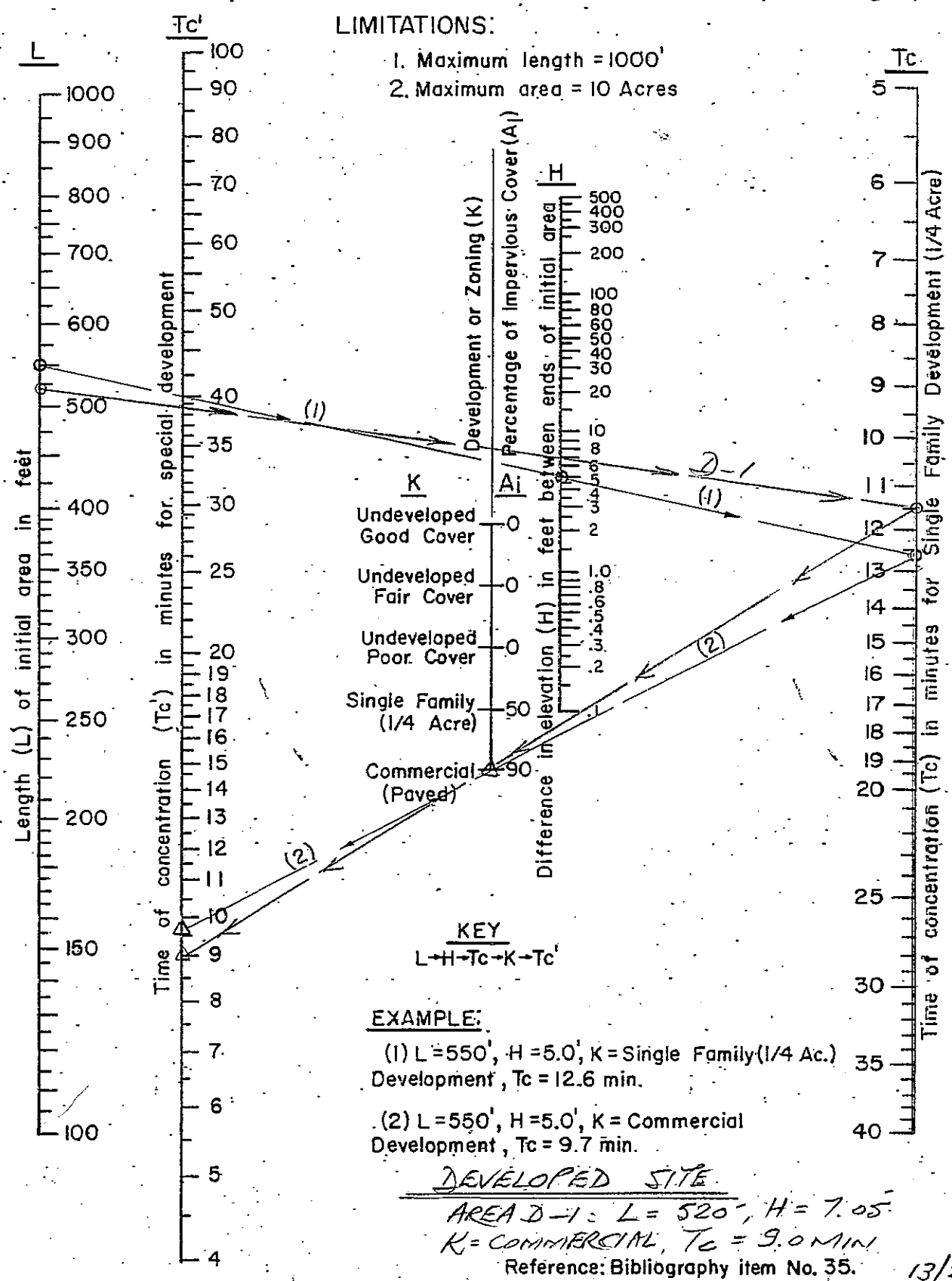
RCFC & WCD

HYDROLOGY MANUAL

TIME OF CONCENTRATION FOR INITIAL SUBAREA

PLATE

8 of 10



DEVELOPED SITE
AREA D-1: L = 520', H = 7.05'
K = COMMERCIAL, Tc = 9.0 MIN

Reference: Bibliography item No. 35.

13/28

RCFC & WCD
HYDROLOGY MANUAL

TIME OF CONCENTRATION FOR INITIAL SUBAREA

PLATE

LOCATION LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT MORENO VALLEY, CA

ONE HOUR PRECIPITATION:

2-YR. 0.55" (PLATE D-4.3)

100-YR. _____ (PLATE D-4.4)

5-YR. _____ (PLATE D-4.5)

10-YR. _____ (PLATE D-4.5)

25-YR. _____ (PLATE D-4.5)

50-YR. _____ (PLATE D-4.5)

SLOPE OF INTENSITY DURATION CURVE 0.50 (PLATE D-4.6)

BY: _____ DATE: _____

CHECKED: _____ DATE: _____

10
7
5
4
3
2
1.5
1
.7
.5
.4
.3

$I_2 = 1.28"$ POST D-1

$I_2 = 0.90"$ EX. AREA A-1

S=.70
S=.60
S=.50
S=.40

5 10 15 20 25 30 40 50 60 80 100 120

STORM DURATION — MINUTES

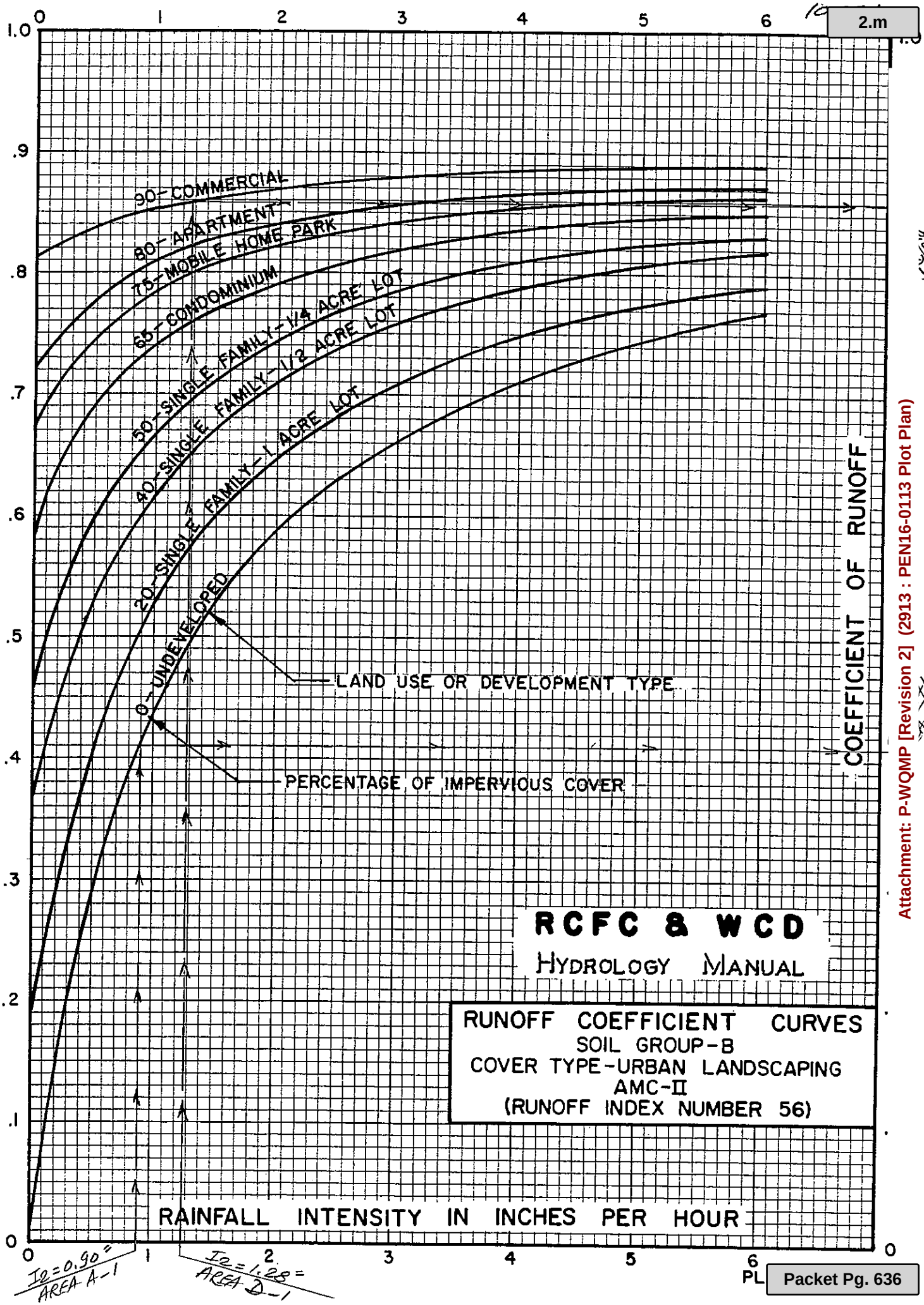
$T_C = 9.0$ MIN. POST DEV SITE D-1

$T_C = 15$ MIN. EX. AREA A-1

RCFC & WCD

HYDROLOGY MANUAL

INTENSITY–DURATION CURVES CALCULATION SHEET



CIVIL TRANS INC.
732 N. Diamond Bar Blvd.
Suite No. 128
Diamond Bar, CA. 91765
(909) 396-1131 FAX (909) 396-0328

JOB 450-269P1: CARWASH MORENO VALLEY
APN: 292-160-022
SHEET NO. 23 OF 28
CALCULATED BY HH DATE 07-10-2017
CHECKED BY JMA DATE 07-10-201
SCALE

2.m

SUB-AREA D-1, DRAINAGE MITIGATION: Q10yr

BIO RETENTION BASIN: (REFER TO PLAN SHTS C-3 & C-4)

THE POST DEVELOPMENT RUNOFF FROM SUB-AREA D-1 IS MITIGATED BY BIO RETENTION BASIN AS SHOWN ON THE PROJECT PLANS. MINIMUM SURFACE AREA, A_M IS PROVIDED TO MITIGATE THE V_{DEP}

$$A_M = \frac{V_{DEP}}{d_E}$$ (d_E: EFFECTIVE DEPTH)

$$d_E = (0.3 \times d_s) + (0.4) \times 1 - \left(\frac{0.7}{W_T}\right) + d_p$$

d_s: DEPTH = 2'
W_T: WIDTH = 40'
d_p: PONDING = 6" = 0.50

$$d_E = (0.3 \times 2) + (0.4) \times 1 - \left(\frac{0.7}{40}\right) + 0.50$$

$$d_E = (0.6) + (0.4) \times 1 - (0.0175) + 0.50$$

$$d_E = 0.6 + 0.4 - 0.0175 + 0.50 = 1.48$$

$$A_M = \frac{2,763}{1.48} = 1,866.90 \text{ SF}$$

$V_{DEP} = 2,763$ CF

A_P = PROPOSED SIZE = 50' x 40' = 2,000 SF

$A_P = 2,000$ SF > $A_M = 1,867$ SF ∴ OK

PROPOSED RUNOFF VOLUME FOR MITIGATION: V_P

$V_P = A_P \times d_E$

$= 2,000 \text{ SF} \times 1.48$

$= 2,960$ CF

$V_P = 2,960$ CF > $V_{DEP} = 2,763$ CF ∴ OK

23/28

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

3.5 Bioretention Facility

Type of BMP	LID – Bioretention
Treatment Mechanisms	Infiltration, Evapotranspiration, Evaporation, Biofiltration
Maximum Drainage Area	This BMP is intended to be integrated into a project's landscaped area in a distributed manner. Typically, contributing drainage areas to Bioretention Facilities range from less than 1 acre to a maximum of around 10 acres.
Other Names	Rain Garden, Bioretention Cell, Bioretention Basin, Biofiltration Basin, Landscaped Filter Basin, Porous Landscape Detention

Description

Bioretention Facilities are shallow, vegetated basins underlain by an engineered soil media. Healthy plant and biological activity in the root zone maintain and renew the macro-pore space in the soil and maximize plant uptake of pollutants and runoff. This keeps the Best Management Practice (BMP) from becoming clogged and allows more of the soil column to function as both a sponge (retaining water) and a highly effective and self-maintaining biofilter. In most cases, the bottom of a Bioretention Facility is unlined, which also provides an opportunity for infiltration to the extent the underlying onsite soil can accommodate. When the infiltration rate of the underlying soil is exceeded, fully biotreated flows are discharged via underdrains. Bioretention Facilities therefore will inherently achieve the maximum feasible level of infiltration and evapotranspiration and achieve the minimum feasible (but highly biotreated) discharge to the storm drain system.

Siting Considerations

These facilities work best when they are designed in a relatively level area. Unlike other BMPs, Bioretention Facilities can be used in smaller landscaped spaces on the site, such as:

- ✓ Parking islands
- ✓ Medians
- ✓ Site entrances

Landscaped areas on the site (such as may otherwise be required through minimum landscaping ordinances), can often be designed as Bioretention Facilities. This can be accomplished by:

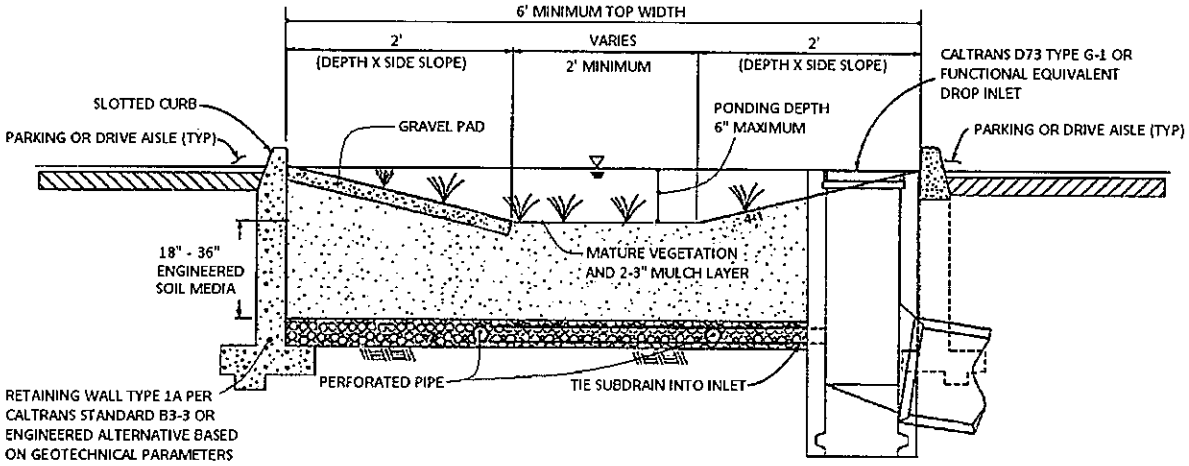
- *Depressing* landscaped areas below adjacent impervious surfaces, rather than elevating those areas
- Grading the site to direct runoff from those impervious surfaces *into* the Bioretention Facility, rather than away from the landscaping
- Sizing and designing the depressed landscaped area as a Bioretention Facility as described in this Fact Sheet

Bioretention Facilities should however not be used downstream of areas where large amounts of sediment can clog the system. Placing a Bioretention Facility at the toe of a steep slope should also be avoided due to the potential for clogging the engineered soil media with erosion from the slope, as well as the potential for damaging the vegetation.

Design and Sizing Criteria

The recommended cross section necessary for a Bioretention Facility includes:

- Vegetated area
- 18' minimum depth of engineered soil media
- 12' minimum gravel layer depth with 6' perforated pipes (added flow control features such as orifice plates may be required to mitigate for HCOC conditions)



While the 18-inch minimum engineered soil media depth can be used in some cases, it is recommended to use 24 inches or a preferred 36 inches to provide an adequate root zone for the chosen plant palate. Such a design also provides for improved removal effectiveness for nutrients. The recommended ponding depth inside of a Bioretention Facility is 6 inches; measured from the flat bottom surface to the top of the water surface as shown in Figure 1.

Because this BMP is filled with an engineered soil media, pore space in the soil and gravel layer is assumed to provide storage volume. However, several considerations must be noted:

- Surcharge storage above the soil surface (6 inches) is important to assure that design flows do not bypass the BMP when runoff exceeds the soil's absorption rate.
- In cases where the Bioretention Facility contains engineered soil media deeper than 36 inches, the pore space within the engineered soil media can only be counted to the 36-inch depth.
- A maximum of 30 percent pore space can be used for the soil media whereas a maximum of 40 percent pore space can be use for the gravel layer.

Figure 1: Standard Layout for a Bioretention Facility

BIORETENTION FACILITY BMP FACT SHEET

Engineered Soil Media Requirements

The engineered soil media shall be comprised of 85 percent mineral component and 15 percent organic component, by volume, drum mixed prior to placement. The mineral component shall be a Class A sandy loam topsoil that meets the range specified in Table 1 below. The organic component shall be nitrogen stabilized compost[1], such that nitrogen does not leach from the media.

Table 1: Mineral Component Range Requirements

Percent Range	Component
70-80	Sand
15-20	Silt
5-10	Clay

The trip ticket, or certificate of compliance, shall be made available to the inspector to prove the engineered mix meets this specification.

Vegetation Requirements

Vegetative cover is important to minimize erosion and ensure that treatment occurs in the Bioretention Facility. The area should be designed for at least 70 percent mature coverage throughout the Bioretention Facility. To prevent the BMP from being used as walkways, Bioretention Facilities shall be planted with a combination of small trees, densely planted shrubs, and natural grasses. Grasses shall be native or ornamental; preferably ones that do not need to be mowed. The application of fertilizers and pesticides should be minimal. To maintain oxygen levels for the vegetation and promote biodegradation, it is important that vegetation not be completely submerged for any extended period of time. Therefore, a maximum of 6 inches of ponded water shall be used in the design to ensure that plants within the Bioretention Facility remain healthy.

A 2 to 3-inch layer of standard shredded aged hardwood mulch shall be placed as the top layer inside the Bioretention Facility. The 6-inch ponding depth shown in Figure 1 above shall be measured from the top surface of the 2 to 3-inch mulch layer.

Curb Cuts

To allow water to flow into the Bioretention Facility, 1-foot-wide (minimum) curb cuts should be placed approximately every 10 feet around the perimeter of the Bioretention Facility. Figure 2 shows a curb cut in a Bioretention Facility. Curb cut flow lines must be at or above the V_{BMP} water surface level.

[1] For more information on compost, visit the US Composting Council website at: http://compostingcouncil.org/

BIORETENTION FACILITY BMP FACT SHEET

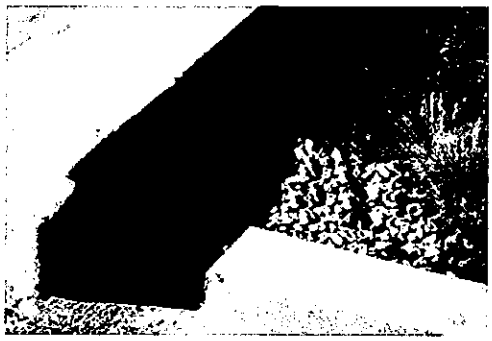


Figure 2: Curb Cut located in a Bioretention Facility

To reduce erosion, a gravel pad shall be placed at each inlet point to the Bioretention Facility. The gravel should be 1- to 1.5-inch diameter in size. The gravel should overlap the curb cut opening a minimum of 6 inches. The gravel pad inside the Bioretention Facility should be flush with the finished surface at the curb cut and extend to the bottom of the slope.

In addition, place an apron of stone or concrete, a foot square or larger, inside each inlet to prevent vegetation from growing up and blocking the inlet. See Figure 3.

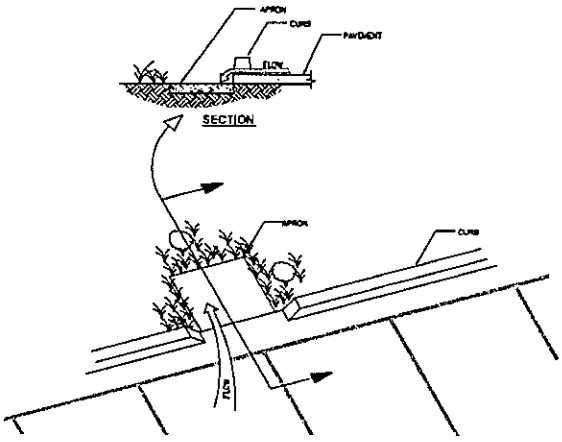


Figure 3: Apron located in a Bioretention Facility

Terracing the Landscaped Filter Basin

It is recommended that Bioretention Facilities be level. In the event the facility site slopes and lacks proper design, water would fill the lowest point of the BMP and then discharge from the basin without being treated. To ensure that the water will be held within the Bioretention Facility on sloped sites, the BMP must be terraced with nonporous check dams to provide the required storage and treatment capacity.

The terraced version of this BMP shall be used on non-flat sites with no more than a 3 percent slope. The surcharge depth cannot exceed 0.5 feet, and side slopes shall not exceed 4:1. Table 2 below shows the spacing of the check dams, and slopes shall be rounded up (i.e., 2.5 percent slope shall use 10' spacing for check dams).

Table 2: Check Dam Spacing

6" Check Dam Spacing	
Slope	**Spacing**
1%	*25'*
2%	*15'*
3%	*10'*

BIORETENTION FACILITY BMP FACT SHEET

Roof Runoff

Roof downspouts may be directed towards Bioretention Facilities. However, the downspouts must discharge onto a concrete splash block to protect the Bioretention Facility from erosion.

Retaining Walls

It is recommended that Retaining Wall Type 1A, per Caltrans Standard B3-3 or equivalent, be constructed around the entire perimeter of the Bioretention Facility. This practice will protect the sides of the Bioretention Facility from collapsing during construction and maintenance or from high service loads adjacent to the BMP. Where such service loads would not exist adjacent to the BMP, an engineered alternative may be used if signed by a licensed civil engineer.

Side Slope Requirements

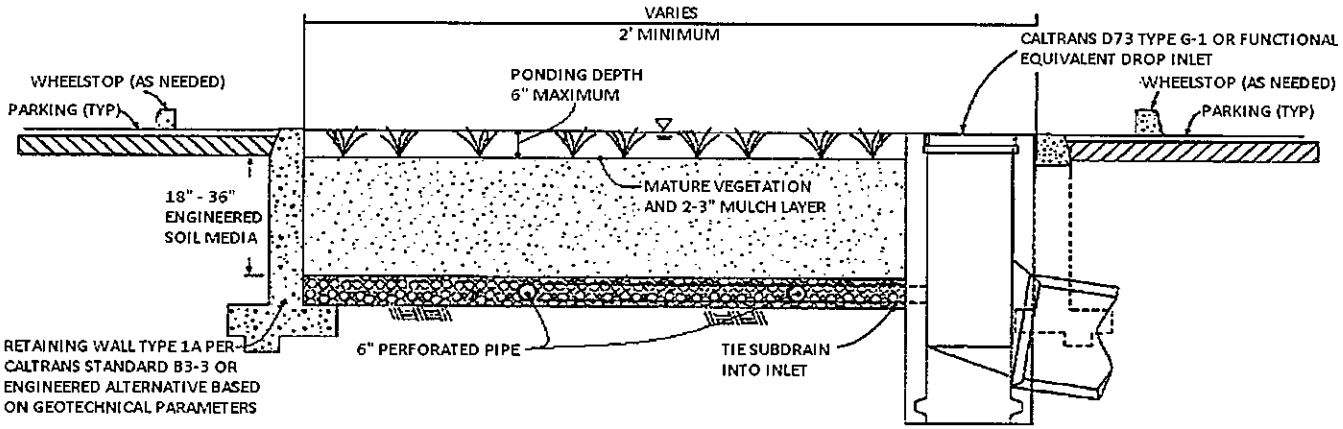
Bioretention Facilities Requiring Side Slopes

The design should assure that the Bioretention Facility does not present a tripping hazard. Bioretention Facilities proposed near pedestrian areas, such as areas parallel to parking spaces or along a walkway, must have a gentle slope to the bottom of the facility. Side slopes inside of a Bioretention Facility shall be 4:1. A typical cross section for the Bioretention Facility is shown in Figure 1.

Bioretention Facilities Not Requiring Side Slopes

Where cars park perpendicular to the Bioretention Facility, side slopes are not required. A 6-inch maximum drop may be used, and the Bioretention Facility must be planted with trees and shrubs to prevent pedestrian access. In this case, a curb is not placed around the Bioretention Facility,

but wheel stops shall be used to prevent vehicles from entering the Bioretention Facility, as shown in Figure 4.



BIORETENTION FACILITY BMP FACT SHEET

Planter Boxes

Bioretention Facilities can also be placed above ground as planter boxes. Planter boxes must have a minimum width of 2 feet, a maximum surcharge depth of 6 inches, and no side slopes are necessary. Planter boxes must be constructed so as to ensure that the top surface of the engineered soil media will remain level. This option may be constructed of concrete, brick, stone or other stable materials that will not warp or bend. Chemically treated wood or galvanized steel, which has the ability to contaminate stormwater, should not be used. Planter boxes must be lined with an impermeable liner on all sides, including the bottom. Due to the impermeable liner, the inside bottom of the planter box shall be designed and constructed with a cross fall, directing treated flows within the subdrain layer toward the point where subdrain exits the planter box, and subdrains shall be oriented with drain holes oriented down. These provisions will help avoid excessive stagnant water within the gravel underdrain layer. Similar to the in-ground Bioretention Facility versions, this BMP benefits from healthy plants and biological activity in the root zone. Planter boxes should be planted with appropriately selected vegetation.

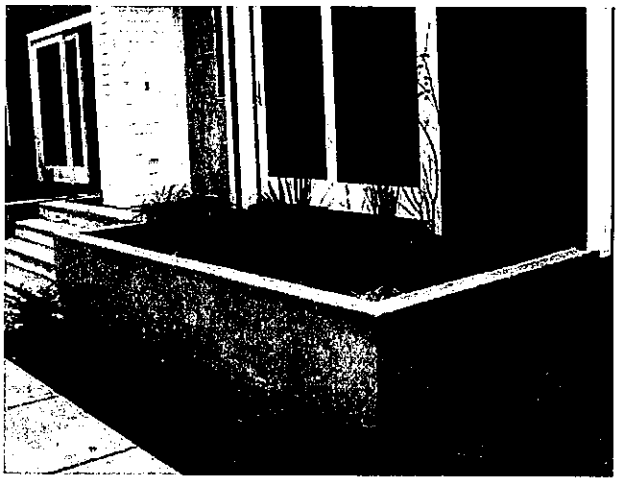


Figure 5: Planter Box
Source: LA Team Effort

Overflow

An overflow route is needed in the Bioretention Facility design to bypass stored runoff from storm events larger than V_{BMP} or in the event of facility or subdrain clogging. Overflow systems must connect to an acceptable discharge point, such as a downstream conveyance system as shown in Figure 1 and Figure 4. The inlet to the overflow structure shall be elevated inside the Bioretention Facility to be flush with the ponding surface for the design capture volume (V_{BMP}) as shown in Figure 4. This will allow the design capture volume to be fully treated by the Bioretention Facility, and for larger events to safely be conveyed to downstream systems. The overflow inlet shall **not** be located in the entrance of a Bioretention Facility, as shown in Figure 6.

Underdrain Gravel and Pipes

An underdrain gravel layer and pipes shall be provided in accordance with Appendix B – Underdrains.

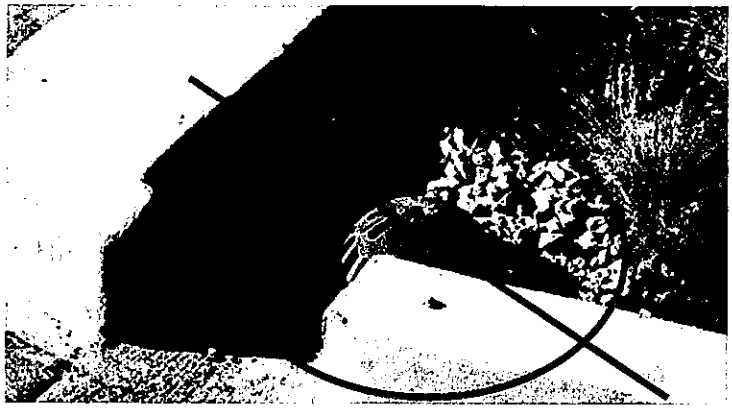


Figure 6: Incorrect Placement of an Overflow Inlet.

Inspection and Maintenance Schedule

The Bioretention Facility area shall be inspected for erosion, dead vegetation, soggy soils, or standing water. The use of fertilizers and pesticides on the plants inside the Bioretention Facility should be minimized.

Schedule	Activity
Ongoing	• Keep adjacent landscape areas maintained. Remove clippings from landscape maintenance activities. • Remove trash and debris • Replace damaged grass and/or plants • Replace surface mulch layer as needed to maintain a 2-3 inch soil cover.
After storm events	• Inspect areas for ponding
Annually	• Inspect/clean inlets and outlets

Bioretention Facility Design Procedure

1) Enter the area tributary, A_T, to the Bioretention Facility.

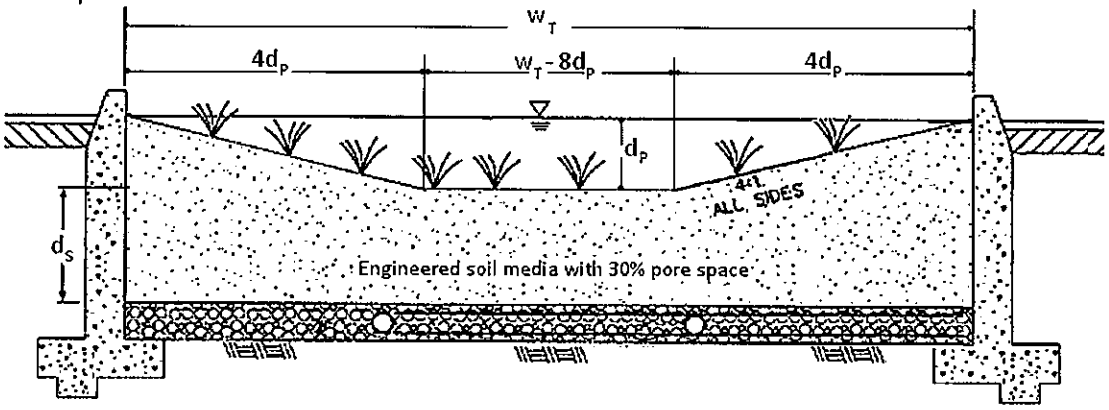
2) Enter the Design Volume, V_{BMP}, determined from Section 2.1 of this Handbook.

3) Select the type of design used. There are two types of Bioretention Facility designs: the standard design used for most project sites that include side slopes, and the modified design used when the BMP is located perpendicular to the parking spaces or with planter boxes that do not use side slopes.

4) Enter the depth of the engineered soil media, d_S. The minimum depth for the engineered soil media can be 18' in limited cases, but it is recommended to use 24' or a preferred 36' to provide an adequate root zone for the chosen plant palette. Engineered soil media deeper than 36' will only get credit for the pore space in the first 36'.

5) Enter the top width of the Bioretention Facility.

6) Calculate the total effective depth, d_E, within the Bioretention Facility. The maximum allowable pore space of the soil media is 30% while the maximum allowable pore space for the gravel layer is 40%. Gravel layer deeper than 12' will only get credit for the pore space in the first 12'.



a. For the design with side slopes the following equation shall be used to determine the total effective depth. Where, d_P is the depth of ponding within the basin.

$$d_E(\text{ft}) = \frac{0.3 \times \left[\left(w_T(\text{ft}) \times d_S(\text{ft})\right) + 4\left(d_P(\text{ft})\right)^2\right] + 0.4 \times 1(\text{ft}) + d_P(\text{ft})\left[4d_P(\text{ft}) + \left(w_T(\text{ft}) - 8d_P(\text{ft})\right)\right]}{w_T(\text{ft})}$$

This above equation can be simplified if the maximum ponding depth of 0.5' is used. The equation below is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(\text{ft}) = (0.3 \times d_S(\text{ft}) + 0.4 \times 1(\text{ft})) - \left(\frac{0.7\ (\text{ft}^2)}{w_T(\text{ft})}\right) + 0.5(\text{ft})$$

b. For the design without side slopes the following equation shall be used to determine the total effective depth:

$$d_E(ft) = d_P(ft) + [(0.3) \times d_S(ft) + (0.4) \times 1(ft)]$$

The equation below, using the maximum ponding depth of 0.5', is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(ft) = 0.5\ (ft) + [(0.3) \times d_S(ft) + (0.4) \times 1(ft)]$$

7) Calculate the minimum surface area, A_M, required for the Bioretention Facility. This does not include the curb surrounding the Bioretention Facility or side slopes.

$$A_M(ft^2) = \frac{V_{BMP}(ft^3)}{d_E\ (ft)}$$

8) Enter the proposed surface area. This area shall not be less than the minimum required surface area.

9) Verify that side slopes are no steeper than 4:1 in the standard design, and are not required in the modified design.

10) Provide the diameter, minimum 6 inches, of the perforated underdrain used in the Bioretention Facility. See Appendix B for specific information regarding perforated pipes.

11) Provide the slope of the site around the Bioretention Facility, if used. The maximum slope is 3 percent for a standard design.

12) Provide the check dam spacing, if the site around the Bioretention Facility is sloped.

13) Describe the vegetation used within the Bioretention Facility.

PLANNING COMMISSION RESOLUTION NO. 2017- 45

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING PLOT PLAN APPLICATION PEN16-0113 FOR DEVELOPMENT OF A 5,430 SQUARE FOOT FULLY AUTOMATED CAR WASH WITH VACUUM STALLS ON APPROXIMATELY 1.68 ACRE SITE LOCATED ON THE NORTH SIDE OF SUNNYMEAD BOULEVARD, WEST OF HEACOCK STREET, AND SOUTH OF THE STATE HIGHWAY 60 (ASSESSOR'S PARCEL NUMBER 292-160-023)

WHEREAS, Alisam Moreno, LLC, has filed an application for the approval of Plot Plan PEN16-0113 for development of a 5,430 square foot fully automated car wash with vacuum stalls located on the north side of Sunnymead Boulevard, west of Heacock Street, and south of State Highway 60 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 Municipal Code, General Plan and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process 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 November 24, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on December 7, 2017. The public hearing notice for this project was also posted on the project site on December 8, 2017; and

WHEREAS, on December 21, 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 December 21, 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 5,430 square foot fully automated car wash with vacuum stalls on an approximately 1.68 acre site. The General Plan land use designations for the project site is Commercial (C). The proposed development is consistent with General Plan Objective 2.4, which states "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 retail and service commercial needs of Moreno Valley residents and businesses".

   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 Specific Plan 204 Community Commercial (SP204CC). The primary focus of the Community Commercial (SP204CC) land use designation is to provide for the general shopping and service needs of freeway travelers, area residents and workers by providing a wide variety of travel related and local business services which include motels, gas stations, fast food and sit-down restaurants, general retail and personal uses. The Community Commercial zoning requirements of the Municipal Code apply to the project.

   The fully automated car wash with vacuum stalls use is a permitted use within the CC zone, and would be compatible with surrounding development.

   The project is designed in accordance with the provisions of Section 9.04 Commercial Districts, Section 9.16 Design Guidelines of the City's Municipal Code. 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 fully automated car wash with vacuum stalls project 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 and one half miles from Fire Station No. 2. Therefore, adequate emergency services can be provided to the site consistent with General Plan Goal 9.6.2. The project as designed and conditioned will be

consistent with Specific Plan 204 Community Commercial (SP204CC) zoning.

The proposed fully automated car wash with vacuum stalls project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity. Planning staff has reviewed the request in accordance with the latest edition of the California Environmental Quality Act (CEQA) Guidelines and has determined that the project is not exempt under CEQA. An Initial Study was prepared by MIG, Inc., in compliance with the California Environmental Quality Act (CEQA) Guidelines. The Initial Study examined the potential of the proposed project to have any significant impact on the environment. The Initial Study provides information in support of the finding that a Mitigated Negative Declaration is an appropriate CEQA document for the project, in that the proposed project, with the implementation of mitigation measures identified, will not have a significant effect on the environment. Therefore, the fully automated car wash with vacuum stalls project will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

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 consistent with the Commercial (C) General Plan and Specific Plan 204 Community Commercial (SP204CC) zoning designations. The project surrounding land uses include existing commercial automotive uses to the west, and retail uses, including a Chevron gas station, Jack's Burgers and Jack in-the-Box fast food restaurant to the immediate east fronting on Heacock Street. The Moreno Valley Plaza and related parking lot is located to the south across Sunnymead Boulevard. The current zoning designations to the west, east, and south are Specific Plan 204 Community Commercial (SP204CC).

Overall, the design of the proposed fully automated car wash with vacuum stalls development has been found to be consistent with the objectives, goals and policies outlined in the City's General Plan, as well as being compatible with the existing and planned land uses in the project area.

This project, as designed conforms to all development standards of the Specific Plan 204 Community Commercial (SP204CC) zone and the design guidelines for commercial developments prescribed in the City's Municipal Code and City Landscape Standards.

The architectural design of the car wash building provides variation in roof line, material, and color. The building has a contemporary style with a flat roof, faux windows on the east and west elevations, and two tower elements at the entrance and exit to the car wash. Building exterior finishes include a blend of earth tones for the stone veneer, paint colors, metal fascia, striped canvas awnings, and a clay tile roof for the car wash entrance and exit tower elements.

As designed and conditioned the proposed fully automated car wash with vacuum stalls project 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 PEN16-0113, 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- 45, and thereby:

1. **APPROVES** Plot Plan PEN16-0113 based on the findings contained in this resolution, and subject to the attached conditions of approval included as Exhibit A.

APPROVED this 21st day of December, 2017.

AYES:
NOES:
ABSTAIN:

_____
Jeffrey Barnes
Chair, Planning Commission

ATTEST:

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

APPROVED AS TO FORM:

_____
City Attorney

Exhibit A

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Plot Plan (PEN16-0113)

EFFECTIVE DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. Any expansion to this use or exterior alterations will require the submittal of a separate application(s) and shall be reviewed and approved under separate permit(s). (MC 9.02.080)

2. 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)

3. 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. (MC 9.02.230)

4. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

5. 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 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)

6. 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), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

7. 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.

Special Conditions

8. Plot Plan PEN16-0113 has been approved for the development of a 5,430 square foot fully automated car wash with vacuum stalls project with thirty-nine parking spaces on a 1.68 acre site. The project site is comprised of one parcel, Assessor's Parcel Number 292-160-023 located on the North side of Sunnymead Boulevard, west of Heacock Street, south of State Highway 60. The project as designed is consistent with the City's General Plan and the Municipal Code. A change or modification shall require separate approval.

9. BIO-1 All project sites containing burrowing owl habitat or burrows (based on Step 1 – Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls.

10. BIO-2 To avoid impacts to nesting birds, construction activities and construction noise should occur outside the avian nesting season (February 1 to September 1). If construction occurs within the avian nesting season, all suitable habitats shall be thoroughly surveyed for the presence of nests by a qualified biologist no more than five days prior to commencement of any soil disturbance or vegetation removal. If it is determined that the project site is occupied by nesting birds, Mitigation Measure BIO-3 would reduce impacts to less than significant levels.

11. BIO-3 If pre-construction nesting bird surveys locate active nests, no construction-related activities shall "take" place within 300 feet of sensitive bird nests and 500 feet of raptor nests, or as determined by a qualified biologist. Protective measures (e.g., sampling) shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements.

12. CR-1 Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

    a. Project grading and development scheduling;

    b. The Project archeologist and the Consulting Tribes(s) as defined in CR-1 shall attend the pre-grading meeting with the City, the construction manager and any

contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;

c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

13. CR-2 Prior to the issuance of a grading permit, the City of Moreno Valley shall secure agreements with the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The City is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

14. CR-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.

ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CR-1.

15. CR-4 The City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

16. CR-5 The Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

17. CR-6 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

18. CR-7 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

19. CR-8 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

20. N-1 The following measures are required to ensure that project-related short-term construction noise levels are reduced to less-than-significant levels. Prior to issuance of demolition permits, a noise mitigation plan verifying that compliance with the following measures would reduce construction noise to within the allowable levels of 65 dBA for commercial uses. Should construction noise exceed allowable levels after implementation of the following measures, the use of sound curtains or other noise barriers shall be required. The noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise to within allowable levels.

    • Stationary construction noise sources such as generators or pumps must be located at least 100 feet from sensitive land uses, as feasible, or at maximum distance when necessary to complete work near sensitive land uses. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted noise monitor. Datasheets completed by the contracted construction noise monitor may be submitted to the Planning Official, or designee during routine inspections.

    • Construction staging areas must be located as far from noise sensitive land uses as feasible. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted construction noise monitor, by the Planning Official or designee during routine inspections.

    • Throughout construction, the contractor shall ensure all construction equipment is equipped with included noise attenuating devices and are properly maintained. This mitigation measure shall be periodically monitored by a contracted construction noise monitor, the Community Planning Official, or designee during routine inspections.

    • Idling equipment must be turned off when not in use. This mitigation measure may be periodically monitored by a contracted construction noise monitor the Planning Official, or designee during routine inspections.

    • Equipment must be maintained so that vehicles and their loads are secured from rattling and banging. This mitigation measure may be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.

21. N-2 The following measures are required to ensure that project-related operational noise levels are reduced to less-than-significant levels.

    • In order for operational noise levels to comply with the City's ordinance, the height of the tunnel entry and exit openings shall be limited to no more than 10 feet and the east wall of the tunnel shall extend 30 feet northward and southward at a

height of 10 feet to provide adequate shielding and reduce property line sound levels to 65 dB.

• In order to provide adequate of sound attenuation, two sound barrier walls will be constructed at the east side of the wash tunnel entry to the south and exit to the north. At a height of 10 feet, the sound barriers shall extend 30 feet northward from the northwest corner of the building and 30 feet southward from the southwest corner of the building at a height of 10 feet. The western surface of the extended wall at the south (entrance) shall be treated with outdoor sound absorbing material, such as IAC Noise-Foil panels. The material could be any impervious construction with a surface density of at least 2 pounds per square foot. The eastern face of both walls shall be treated with sound absorbing surface material with NRC 0.7 or greater. Along the west side of the site, the existing barrier will provide adequate shielding from the vacuum equipment to reduce levels to below 65 dB at the commercial/industrial uses and to well below 60 dB at the residences further west.

22. CR-9 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-1 before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

23. Prior to issuance of grading permits, the developer shall remove the existing billboard and freeway sign on the northern portion of the site.

Prior to Building Permit

24. Prior to the issuance of building permits, the developer shall provide documentation that contact was made to the U.S. Postal Service to determine the appropriate type and location of mailboxes.

25. Prior to the issuance of building permits, covered trash enclosure(s) shall be included in the building plans or the Building submittal of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides. (GP Objective 43.6, DG)

26. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved 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 Requirements 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. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle.

    C. Drought tolerant landscape shall be used. Sod shall be limited to gathering areas. (or No sod shall be installed)

    D. Street trees shall be provided every 40 feet on center in the right of way.

    E. 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.

    F. Enhanced landscaping shall be provided at all driveway entries and street corner locations. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.

    G. Landscaping on three sides of any trash enclosure.

    H. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site.

27. 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)

28. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

29. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

30. 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)

31. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. 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.

32. 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 6 foot high decorative wrought iron fence with 6 foot high decorative block pilasters and a cap shall be required on the east property line.

    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.

33. 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.

34. Prior to issuance of grading permits, the location of the trash enclosure shall be included on the plans.

35. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

36. Prior to issuance of any grading permits, mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant within 30 days of project approval. No City permit or approval shall be issued until such fee is paid. (CEQA)

Prior to Building Final or Occupancy

37. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

38. Prior to building final, Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

39. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

Building Division

40. Any construction within the city shall only be completed between the hour 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 (Municipal Code Section 8.14.040.E).

41. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Standards Code

(California Code of Regulations, Title 24) including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current edition of the building code standard is the 2016 Triennial Edition.

42. 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.

43. 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.

44. Contact the Building Safety Division for permit application submittal requirements.

45. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

46. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

47. 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.

48. The proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

49. 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.

50. 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)

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

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

52. 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.

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

54. 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.

55. 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

FIRE DEPARTMENT

Fire Prevention Bureau

56. 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 and rear access locations. The numerals shall be a minimum of twelve inches in height. (CFC 505.1, MVMC 8.36.060[I])

57. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 105)

58. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

59. 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)

60. 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 of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

61. 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)

62. 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)

63. 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)

64. 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.

65. 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.

66. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

67. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet 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])

68. Prior to issuance of the building permit for development, independent paved access to the nearest paved road, maintained by the City shall be designed and

constructed by the developer within the public right of way in accordance with City Standards. (MVMC 8.36.060, CFC 501.4)

69. 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. 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)

70. 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 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)

71. Fire Department access driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. (CFC 503 and MVMC 8.36.060, CFC 501.4)

72. 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)

73. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4)

74. 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)

75. 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)

76. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

77. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5)

78. 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

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

80. All applicable inspection fees shall be paid.

81. 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)]

82. 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]

83. 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.

84. 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.

85. 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.

86. 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]

Prior to Grading Plan Approval

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

88. 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:
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.

89. 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.

90. 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.

91. 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.

92. The developer shall pay all remaining plan check fees.

93. 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.

94. 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.

95. Landscape & Irrigation plans (prepared by a registered/licensed civil engineer) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

Prior to Grading Permit

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

97. 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)]

98. 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]

99. The developer shall pay all applicable inspection fees.

100. 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)]

Prior to Improvement Plan Approval

101. 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 otherwise approved by the City Engineer.

102. The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

103. The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

104. Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

105. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one

travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

106. All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

107. 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.

108. 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.

109. The developer shall pothole to determine the exact location and elevation of existing underground utilities and incorporate the results into the design of the plans. The developer shall coordinate with all affected utility companies and bear all costs of utility relocations.

Prior to Building Permit

110. 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.

111. 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.

112. 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.

113. Certification to the line, grade, flow test and system invert elevations for the water quality control BMPs shall be submitted for review and approved by the City Engineer (excluding models homes).

114. All outstanding fees shall be paid.

115. 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.

116. The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

117. 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.

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]

118. 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.

119. 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.

120. 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.

121. 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;

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 drawing if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

122. Prior to occupancy, the Developer shall construct the following improvements, consistent with Sunnymead Boulevard, City Standard Plan MVSI-104D-0 (100' RW / 68' CC), which fronts the entire project's south frontage:

a. A driveway approach shall be constructed per City Standard Plan MVSI-112C-0. No decorative pavers shall be placed within the public right of way.

b. Curb, gutter, and sidewalk shall be constructed to adjoin existing improvements per City Standard Plans MVSI-120A-0 and MVSI-115A-0,

respectively.

123. Prior to precise grading plan approval, the precise grading plans shall show any proposed trash enclosure as dual bin; one for trash and one for recyclables.

124. Prior to building permit issuance, a 4 foot right of way dedication behind the driveway approach, per City Standard Plan MVSI-112C-0, shall be approved.

Special Districts Division

125. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

126. Modification of existing irrigation systems for parkway improvements may be required per the direction of, approval by and coordination with the Special Districts Division. Please contact Special District Division staff at 951.413.3480 or specialdistricts@moval.org to coordinate the modifications.

127. 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.

128. The removal of existing trees with four-inch or greater trunk diameters (calipers), shall be replaced, 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, where approved. (MC 9.17.030)

129. The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services), Zone C (Arterial Street Lighting), and Zone S (Sunnymead Boulevard Maintenance). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C and the annual parcel charge for Zone S for operations and capital improvements.

130. 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.

131. 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.)

132. 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.)

133. SD-4 Installation of a new driveway for this project may impact City owned palm trees adjacent to Sunnymead Blvd. If this occurs, relocation of the palm(s) will be required. Additionally, demo and relocation of the tree well(s) may be required if the site accommodates.

134. Inspection fees for the monitoring of landscape installation associated with the City of Moreno Valley maintained parkways/medians are due prior to the required pre-construction meeting. (MC 3.32.040)

Transportation Engineering Division

135. Driveway shall conform to City of Moreno Valley Standard No. MVSI-112C-0 for commercial driveway approach. Access at the driveway shall be right-in and right-out only, controlled by the existing raised concrete median on Sunnymead Boulevard.

136. All proposed on-site traffic signing and striping should be accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).

137. Sunnymead Boulevard is classified as a modified arterial (100' RW/68'CC) at this location per City Standard Plan No. MVSI-104D-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility

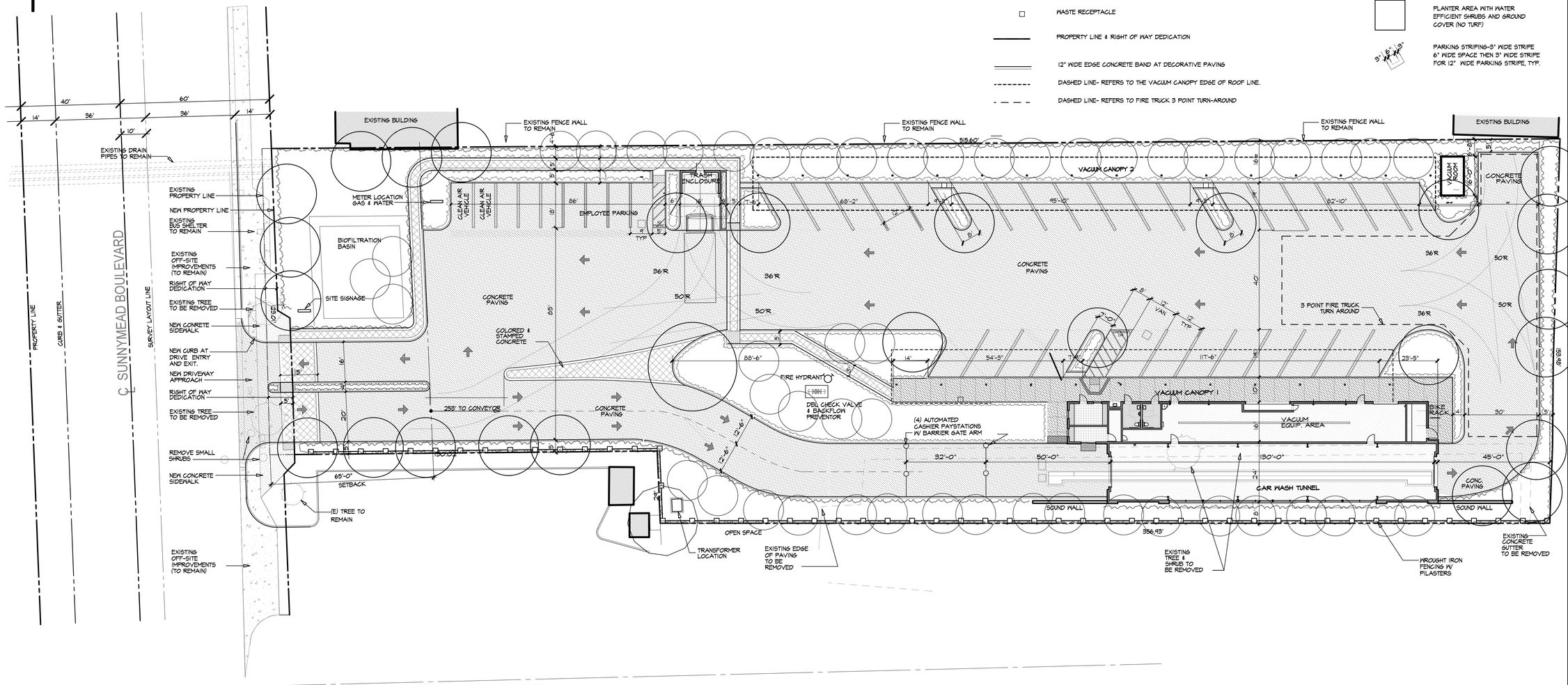
138. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, registered Civil or Traffic engineer may be required for plan approval or as required by the City Traffic Engineer.

139. Prior to issuance of a Building Final or Certificate of Occupancy, all approved signing and striping shall be installed per current City Standards

140. Prior to final approval of any landscaping or monument sign plans, the project plans shall demonstrate that sight distance at the project driveways conforms to City Standard Plan No. MVSI-164A, B, C-0.

SITE PLAN LEGEND

- DECORATIVE PAVING
- NEW FIRE HYDRANT (6"X4"X2 1/2"X2 1/2") (CFC 5075.1, 5075.7, APPENDIX C, NFPA 24-7.2.3, MVMC 9.12.2.1)
- NEW SITE LIGHTING
- BACKFLOW PREVENTION DEVICE
- BICYCLE RACK
- 2' SQ. PILASTER WITH WROUGHT IRON FENCING TO +6'-0"
- WASTE RECEPTACLE
- PROPERTY LINE & RIGHT OF WAY DEDICATION
- 12" WIDE EDGE CONCRETE BAND AT DECORATIVE PAVING
- DASHED LINE- REFERS TO THE VACUUM CANOPY EDGE OF ROOF LINE.
- DASHED LINE- REFERS TO FIRE TRUCK 3 POINT TURN-AROUND
- 24GAL. / 15GAL. NEW TREES
- SHRUBS
- TREE TO BE REMOVED
- NEW CONCRETE PAVING
- NEW 4" CONCRETE WALK OVER 2" SAND (THIN LINE INDICATES EXP./CONTROL JOINT)
- PLANTER AREA WITH WATER EFFICIENT SHRUBS AND GROUND COVER (NO TURF)
- PARKING STRIPING-3" WIDE STRIPE 6" WIDE SPACE THEN 3" WIDE STRIPE FOR 12" WIDE PARKING STRIPE, TYP.



SITE PLAN

SCALE: 1" = 20'-0"

NORTH

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LICENSED ARCHITECT FREDERICK E. SCOTT C-8278 REN 12-31-17 STATE OF CALIFORNIA

NEW CARWASH
FOR
ALISAM MORENO LLC

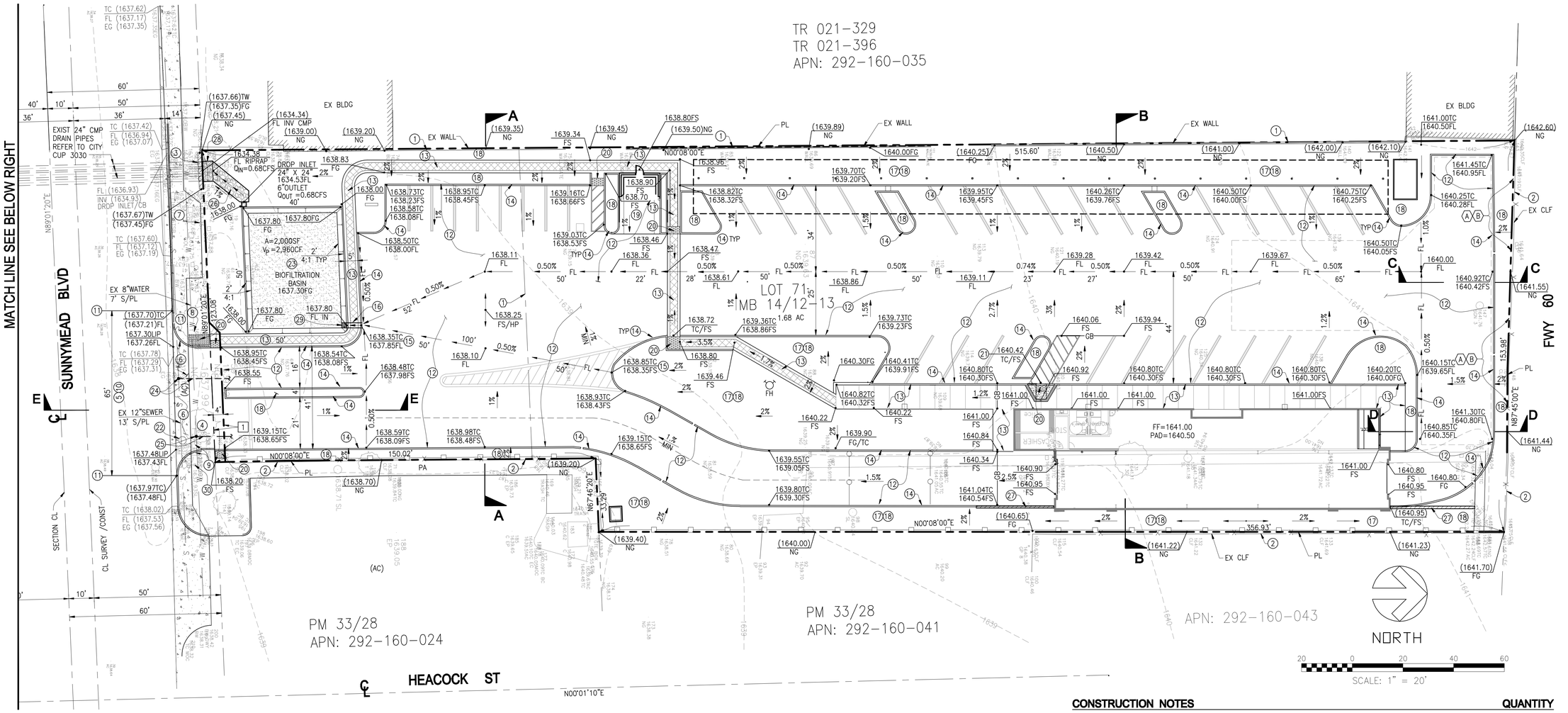
MORENO VALLEY CALIFORNIA

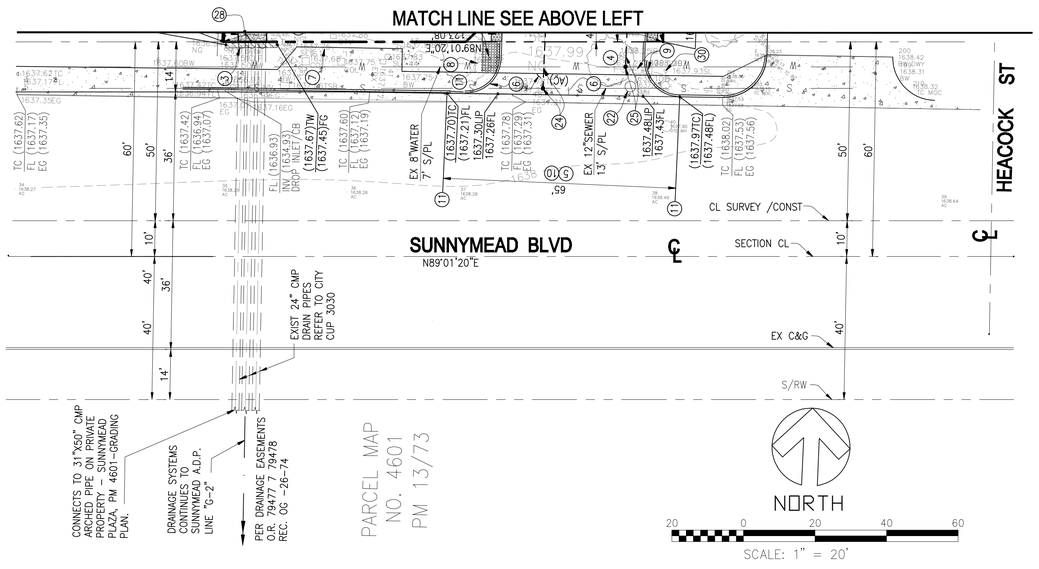
PROJECT #PEN16-0113(PA16-0077

PROJECT No : 1604
DATE : 9-11-2017

SITE PLAN

SHEET No :
1.14





DEDICATION NOTE:

1 4' WIDE DEDICATION AT DRIVEWAY PER CITY STANDARD PLAN NO. MVSI-112C-0

CONSTRUCTION NOTES

		QUANTITY
1	PROTECT EXISTING WALL IN PLACE	——
2	PROTECT EXISTING CHAINLINK FENCE IN PLACE	——
3	PROTECT EXISTING DRAIN SYSTEM WALL & PIPES IN PLACE	——
4	REMOVE EXISTING TREE PER CITY GUIDELINES	1 EA
5	SAWCUT AND REMOVE EXISTING CURB AND GUTTER AS SHOWN PER PLAN	65 LF
6	SAWCUT AND REMOVE EXISTING SIDEWALK AS SHOWN PER PLAN	320 SF
7	PROTECT EXISTING BUS STOP AND POSTS IN PLACE	——
8	CONSTRUCT 4" THICK CONCRETE SIDEWALK PER CITY STANDARD PLAN NO. MVSI-115A-0	80 SF
9	ADJUST UTILITY BOXES PER CITY STANDARDS AND UTILITY COMPANY STANDARDS	2 EA
10	CONSTRUCT CONCRETE DRIVEWAY APPROACH AT LOCATION SHOWN PER CITY STANDARD PLAN NO. MVSI-112C-0 W=40', R=12'	860 SF
11	MATCH TO JOIN WITH EXIST ELEVATION	——
12	CONSTRUCT CONCRETE PAVEMENT WITH CONTROL JOINTS PER PLAN AND DETAIL NO. 1 AS SHOWN ON C-4	43,280 SF
13	CONSTRUCT 4" CONCRETE WALKWAY PER ARCHITECTURAL PLANS.	——
14	CONSTRUCT 6" CONCRETE CURB PER CITY STANDARD NO. MVSI-121A-0	——
* 15	PROVIDE 1' WIDE CURB OPENING FOR OVERFLOW DRAINAGE AS SHOWN ON DETAIL NO. 2 ON SHEET C-4	1 EA
16	INSTALL 5'Lx2'Wx0.5'D METAL DRAIN UNDER WALKWAY	1 EA
17	GRADE AREA TO DRAIN MIN. 2% SLOPE	——
* 18	LANDSCAPE AREA AS SHOWN	LS
19	TRASH ENCLOSURE PER SITE PLAN	——
20	INSTALL DETECTABLE WARNING STRIP AT LOCATIONS SHOWN. ARMOR-TILE OR EQUAL, 4'W X 3'L MIN,	6 EA
21	CONSTRUCT HC RAMP AS SHOWN PER APWA STD. PLAN 111-5, CASE A, TYPE 2.	1 EA
22	ADJUST SEWER MANHOLE TO GRADE PER EMWD STANDARD	1 EA
23	CONSTRUCT BIOFILTRATION BASIN with 24" X 24" DROP INLET CATCH BASIN AS SHOWN PER PLAN AND DETAIL NO. 4 ON SHEET C-4	1 EA
24	P.O.C. 6" SEWER LATERAL CONNECTION PER EMWD REQUIREMENTS	1 EA
25	P.O.C. MIN. 3" WATER SERVICE CONNECTION PER EMWD REQUIREMENTS	1 EA
* 26	CONSTRUCT 5' X 6' X 15'L ROCK RIP RAP AS SHOWN PER PLAN AND DETAIL NO. 3 ON SHEET C-4	1 EA
27	CONSTRUCT SOUND WALL PER ARCH AND STRUCTURAL PLANS	60 LF
28	CONSTRUCT ROCK RIP-RAP AT PIPES ENTRANCE AS SHOWN PER DETAIL NO. 5 ON SHEET C-4	1 EA
* 29	PLACE 6"-8" DIAMETER ROCKS AT BIOFILTER SLOPE AREA FOR RUNOFF INFLOW EROSION CONTROL, MIN. 2' X 2' AREA	1 EA
30	PROTECT EXISTING STREET LIGHT POLE IN PLACE	1 EA

* LID/BMP USED

PEN16-0113 (PREV. PA16-0077)

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ENGINEERING, PLANNING, SURVEYING
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Diamond Bar, California 91765
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REGISTERED PROFESSIONAL ENGINEER
JAVAID M. ASIM
NO. 32779
EXP. 06/30/2018
CIVIL
STATE OF CALIFORNIA

revision	date

printing date

project

LOT 71 OF SUNNYMEAD ORCHARD FARMS TRACT RIVERSIDE COUNTY, CA APN: 292-160-023-9

owner

SH-60-AT HEACOCK STREET, LLC
C/O P&N CONSTRUCTION
8730 WILSHIRE BLVD
STE 202
BEVERLY HILLS, CA 90211
TEL : (310) 433-6815
FAX : (310) 657-7962
EMAIL: BIJAN@3MIL.COM

project no.	450-269P1
scale	AS NOTED
drawn	NB
checked	JMA
date	11/27/17

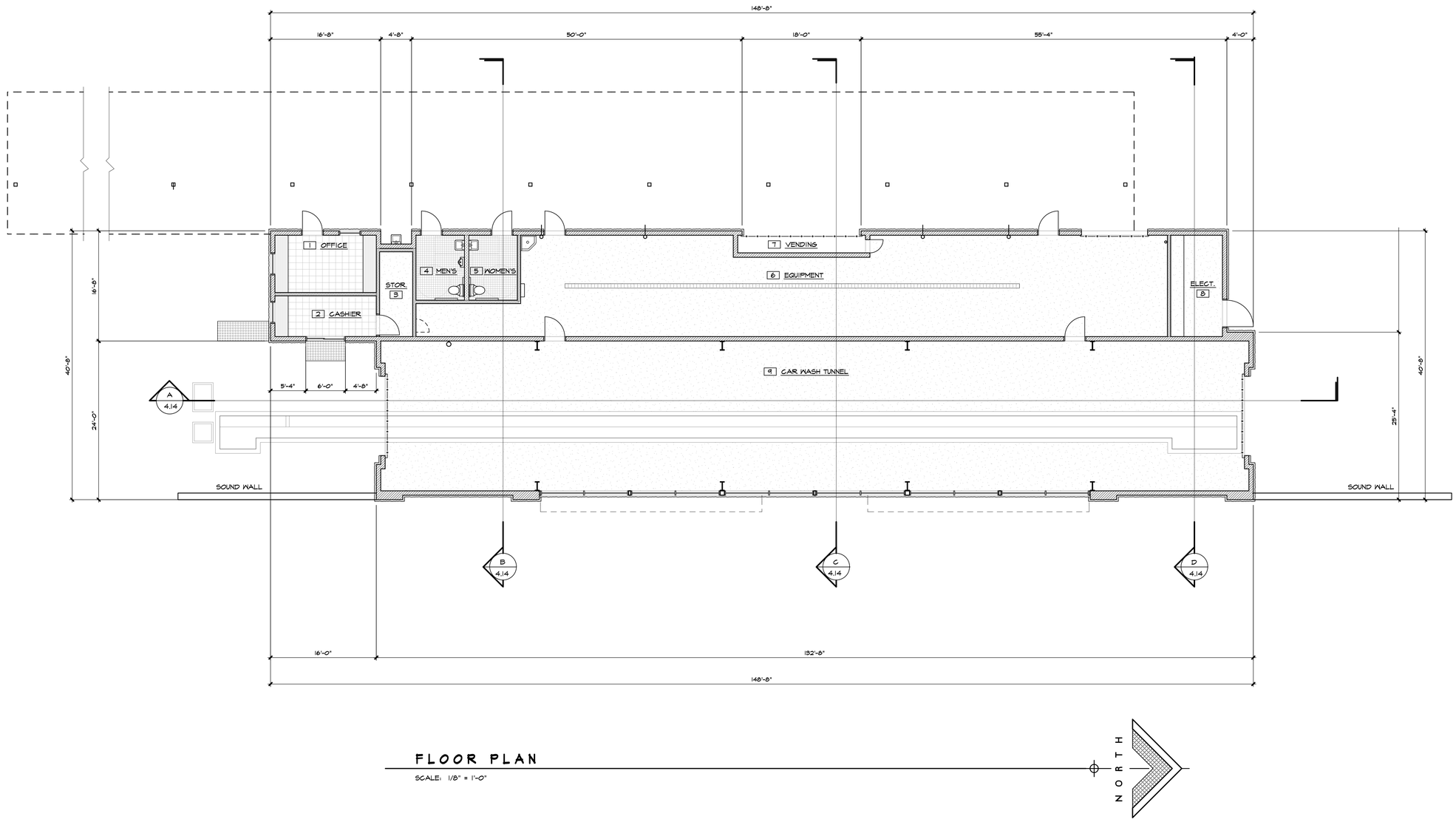
sheet title

PRELIMINARY GRADING PLAN

sheet no.

C-3

Attachment: Preliminary Grading Plan [Revision 1] (2913 : PEN16-0113 Plot Plan)



FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

WALL LEGEND

- 8" CMU
- 2X6 METAL STUDS @ 16" O.C. W/ GYP. BOARD O/ R-19 INSULATION @ INTERIOR, CEMENT PLASTER W/ METAL LATH O/ 2 LAYERS OF FELT ON EXTERIOR
- 2X6 METAL STUDS @ 16" O.C. W/ GYP. BOARD ON ALL EXPOSED SIDES O/ R-19 SOUND INSULATION

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NEW CARWASH
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ALISAM MORENO LLC

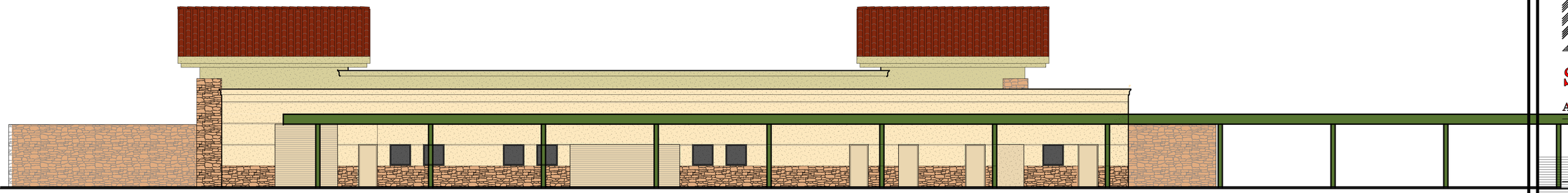
MORENO VALLEY
CALIFORNIA

PROJECT #PEN16-0113(PA16-0077

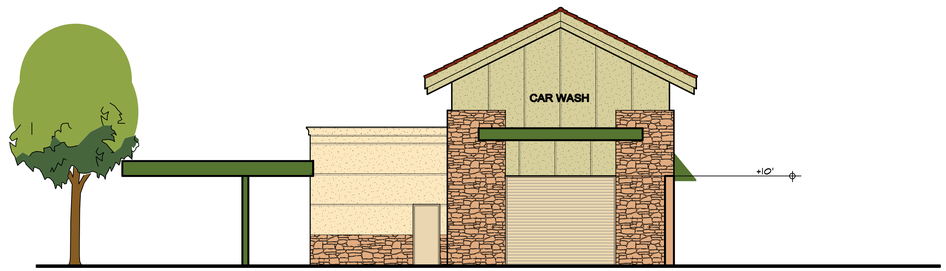
PROJECT No : 1604
DATE : 9-11-2017

FLOOR PLAN

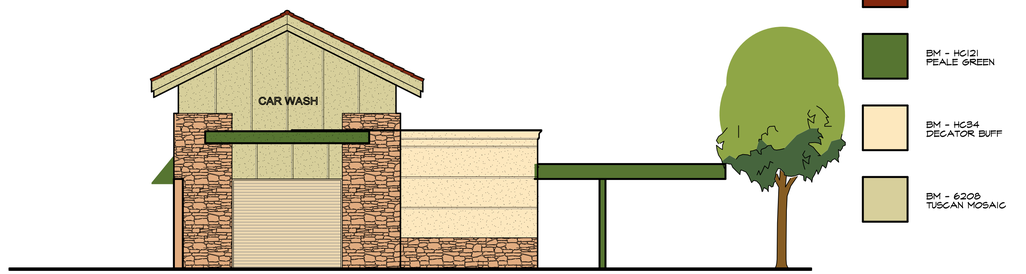
SHEET No :
2.14



WEST



SOUTH



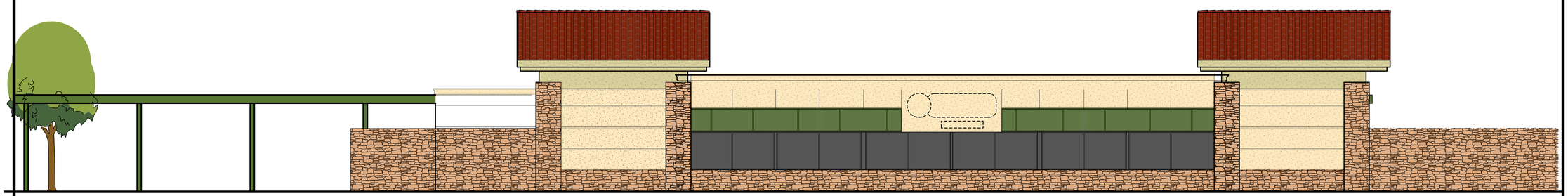
NORTH

TERRA COTTA TILE

BM - HC121
PEALE GREEN

BM - HC34
DECATOR BUFF

BM - 6208
TUSCAN MOSAIC



EAST

EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"

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STATE OF CALIFORNIA

NEW
CARWASH
FOR

ALISAM
MORENO
LLC

MORENO VALLEY
CALIFORNIA

PROJECT #PEN16-0113(PA16-0077

PROJECT No : 1604
DATE : 9-11-2017

COLOR ELEVATIONS

SHEET No :

5.14

MORENO VALLEY CARWASH

PROJECT #PEN16-0113(PA16-0077

SCOTT & ASSOCIATES ARCHITECT