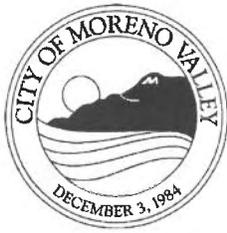


## Appendix A



Community Development Department  
Planning Division  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

## NOTICE OF PREPARATION

### Program Environmental Impact Report

#### MoVal 2040: Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan

**Date:** March 9, 2020

**To:** Reviewing Agencies, Interested Parties, and Organizations

**Subject:** Notice of Preparation of a Program Environmental Impact Report for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan

**Scoping Meeting:** Saturday, March 14, 2020, 2:00 p.m. – 4:00 p.m.  
City Hall – Council Chambers  
14177 Frederick Street, Moreno Valley, CA

(The scoping meeting is being held in conjunction with one of five public workshops on the General plan update.)

**Comment Period:** March 9, 2020 to April 9, 2020

The City of Moreno Valley (City) is updating its General Plan and Housing Element and preparing a Climate Action Plan (Project) to address communitywide greenhouse gas (GHG) emissions. The City as the lead agency has determined that the Project, also known as MoVal 2040, will require the preparation of a Program Environmental Impact Report (Program EIR) in compliance with the California Environmental Quality Act (CEQA; California Public Resources Code, Section 21000 et seq.), and Title 14 of the California Code of Regulations (CCR; hereafter CEQA Guidelines, 14 CCR 15000 et seq.). The City has prepared this Notice of Preparation (NOP) in accordance with CEQA Guidelines Sections 15082(a) and 15375.

We need to know your views or the views of your agency or organization as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the Project. If applicable, your agency will need to use the Program EIR prepared by our agency when considering your permit(s) or other approval(s) for the Project. The project description, location, and the potential environmental effects are contained in the attached materials. Since the City has determined that a Program EIR is required for the Project, pursuant to Section 15060(d) of the CEQA Guidelines (14 CCR 15000 et seq.), preparation of an Initial Study is not

required and, therefore, one has not been prepared. Due to time limits mandated by state law, your response to this NOP must be submitted at the earliest possible date but no later than the close of the NOP review period, which runs as follows: March 9, 2020 – April 9, 2020. Written comments should be addressed to:

Chris Ormsby, AICP, Senior Planner  
Community Development Department  
City of Moreno Valley  
14177 Frederick Street, Moreno Valley, CA 92553  
chriso@moval.org

**Project Title:** MoVal 2040: Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan

**Project Applicant:** City of Moreno Valley

## **PROJECT SETTING**

Moreno Valley is located within the northwestern portion of Riverside County in the southern, Inland Empire portion of the state of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

The Planning Area for the Project includes the approximately 50 square miles within the City limits, and its approximately 18-square-mile Sphere of Influence, which includes land outside but adjacent to the City limit that represents the probable future boundary of the City as determined by the Riverside County Local Agency Formation Commission (LAFCO). (see Figure 1) The city's picturesque valley setting is bounded to the north by the Box Springs Mountains, the Badlands to the east, and the mountains of the Lake Perris Recreation Area, Mystic Lake floodplain, and San Jacinto Wildlife Area to the south. March Air Reserve Base to the southwest, and the City of Riverside to the west of the city.

Moreno Valley is a diverse and growing community of approximately 207,000 people. It has a majority Latino population and a relatively young and dynamic population. The city has seen significant employment growth in recent years, having created 20,000 new jobs locally since 2013, the City looks forward to continued growth. Today, the city is home to 4,500 businesses, including many Fortune 500 and international companies such as Amazon, Proctor & Gamble, Skechers USA, and Karma Automotive. Other important institutions established in the City include the Riverside University Health System – Medical Center, a public teaching hospital, the Kaiser Permanente Hospital, and Moreno Valley College.

## PROJECT DESCRIPTION

In February 2020, the City Council approved the key elements of a vision for the future of the community to guide the Project that include:

- Sustaining a dynamic local economy, building on the clusters of medical and education institutions to provide more jobs locally and reduce the need for residents to commute long distances to jobs outside Moreno Valley. This will involve creating a flexible land use framework that facilitates job growth over time and ensures a high quality of life in the community. It will also involve a focus on education, training, and workforce development to ensure that local residents can access new jobs created in the community.
- Fostering vibrant gathering places that serve as focal points in the community and inviting gateways that announce entry into Moreno Valley. A town center is envisioned as a place where residents and visitors can come together to shop, dine, do business, and enjoy leisure time. Additional cultural, sports, recreational, and leisure facilities and programming is also envisioned. Future gathering places should reflect the cultural diversity of Moreno Valley.
- Promoting healthy, livable neighborhoods with a range of housing options suitable to people of all ages and stages of life and with safe, accessible parks, community gardens, and other opportunities for neighbors to interact with one another on a daily basis. This will also involve enhancing roadway safety, particularly near schools and along bicycle routes, while also ensuring roads are maintained in good condition and circulation is facilitated for a range of travel modes.
- Strengthening community identity, building community bonds, and enhancing local sense of pride. Attractive development at key gateways into the city, neighborhood beautification efforts, preserving and enhancing the natural elements that contribute to the character of the city, and promoting a range of festivals and events that bring people together throughout the year will all build local pride in Moreno Valley as a complete live-work-play community.

The Project will involve a comprehensive update to all elements of the General Plan, and the addition of two new elements, Economic Development and Healthy Communities, to incorporate strategies for achieving the vision, complying with new State law that has come into force since the Moreno Valley General Plan was last comprehensively updated, and addressing emerging trends and new technologies. The Housing Element will be updated to accommodate the City's 6th Cycle Regional Housing Need Assessment (RHNA) allocation. Additionally, a Climate Action Plan will be prepared that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets.

## PROBABLE ENVIRONMENTAL EFFECTS

The Program EIR will address the following resources categories: aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, wildfire, cumulative impacts, and growth-inducing impacts.

Given the local context of Moreno Valley, it is anticipated that the following issues will be central to the environmental analysis:

- Given the extent of air pollution in the South Coast Air Basin and the projected growth of the logistics industry in the region, a careful examination of potential impacts to air quality from implementation of the Project will be required.
- Moreno Valley is located in a seismically active region and three branches of the San Jacinto Fault run through the eastern portion of the planning area. Additionally, other active faults exist in the region, including the San Andreas Fault, located approximately 15 miles northeast, and the Elsinore Fault, located approximately 17 miles southwest that could also generate ground shaking within the city. The Program EIR will closely consider potential impacts related to seismicity in this context.
- Wildfire is a growing concern throughout California, and while the risk of wildfire within most of the city is considered minimal given the extent of urban development, areas within and adjacent to the southern, eastern, and northern portions of the planning area are classified as having Extreme risk. The Program EIR will carefully consider impacts from the Project on wildfire risk.
- Moreno Valley has a long history of flooding, sustaining damage in 2012 and 2015. The City's Master Drainage Plan proposes the construction of detention basins, debris basins, open channels and a network of underground storm drains to provides flood protection from the 100-year storm event. The Program EIR will carefully consider impacts from buildout of the Project on flooding risk.
- Potential cumulative effects related to GHG emissions and traffic and transportation will also be quantified and assessed.

## SCOPING MEETING

Pursuant to Section 21083.9(a)(2) of CEQA (California Public Resources Code, Section 21000 et seq.), scoping meetings are required for projects that may have statewide, regional, or area-wide environmental impacts. The City has determined that this project meets this threshold. A public scoping meeting has been scheduled and will be held on Saturday, March 14, 2020, from 2:00 to 4:00 p.m., at 14177 Frederick Street, in the City Hall Council Chambers. Verbal and written comments regarding the scope of the proposed Program EIR will be accepted at the meeting. Written comments can also

be mailed to the above-mentioned address, addressed to Chris Ormsby, before the close of the NOP public comment period.

Please contact Chris Ormsby at 951.413.3229 or [chriso@moval.org](mailto:chriso@moval.org) with any questions regarding this notice or the scoping meeting.

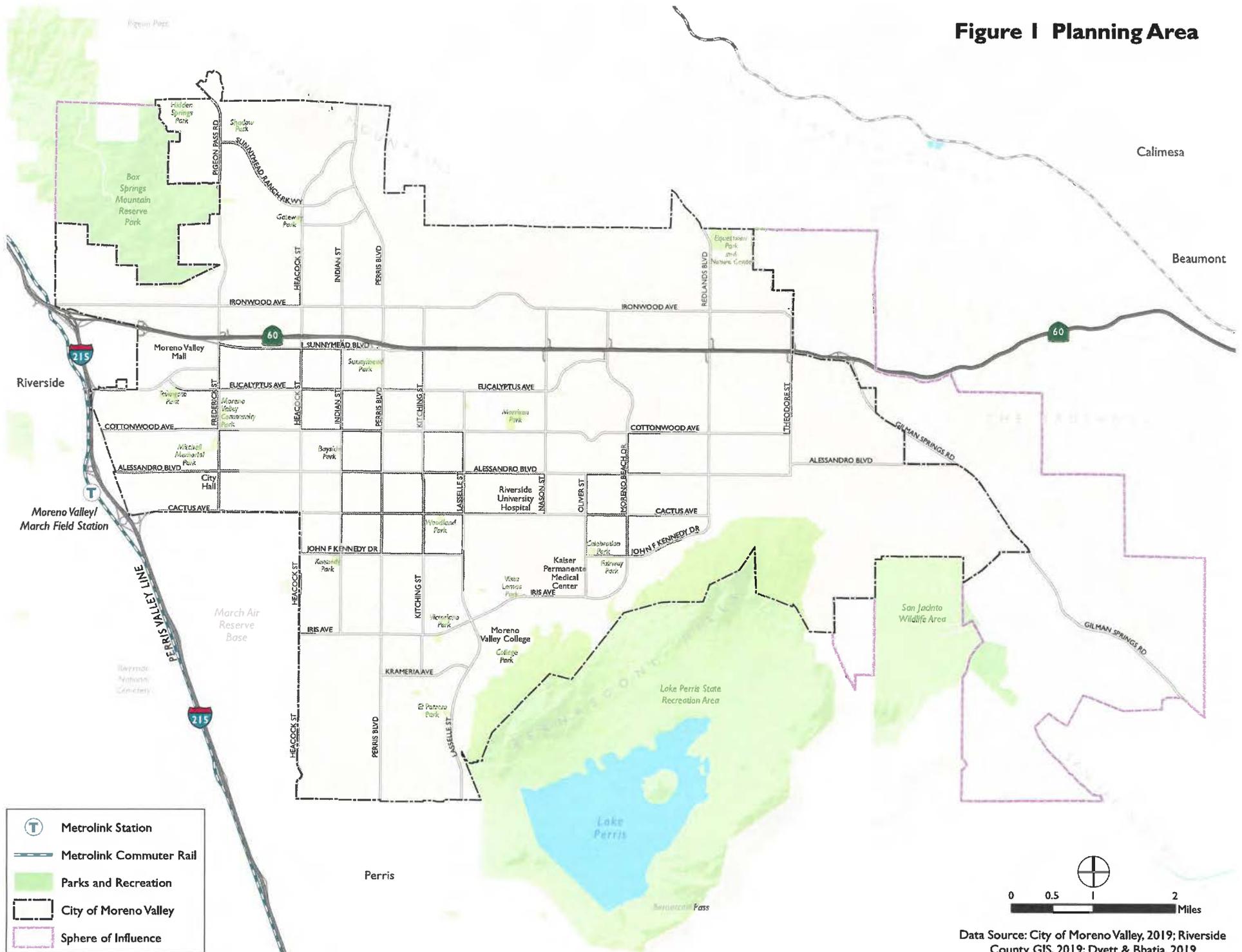
*Patty Nevins*

Patty Nevins  
Planning Official

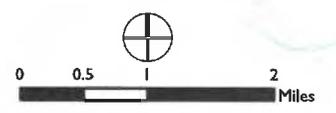
*3.5.2020*

Date

**Figure I Planning Area**



- Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

**From:** [Ann McKibben](#)  
**To:** [Chris Ormsby](#)  
**Subject:** Resubmitting NOP Comments, MoVal 2040: Comprehensive GPU, HE & CAP, Ann McKibben  
**Date:** Thursday, April 9, 2020 1:56:56 PM  
**Attachments:** [Moreno Valley Cover Letter Bob Sydnor July 29, 2005.pdf](#)  
[Moreno Valley Geologic Review Bob Sydnor 29July2005.pdf](#)  
[Moreno Valley Geology Biblio Bob Sydnor 29July2005.pdf](#)  
[Moreno Valley PGA & II, Bob Sydnor July 2005.pdf](#)  
[Moreno Valley Spectra Values Table Bob Sydnor 2005.pdf](#)  
[WorldLogisticsCenterNOPCommentsMichaelMcKibbenMarch262012.pdf](#)  
[MorenoValleyGeneralPlanUpdate2020 Ann McKibben Comment Letter 9 April 2020 2nd.pdf](#)

---

**Warning: External Email – Watch for Email Red Flags!**

Dear Mr. Ormsby –

I apologize but I attached 8 files to my previous email so I am RESUBMITTING my emailed comments on the NOP for the MoVal 2040: Comprehensive GPU, HE & CAP to reflect that I submitted eight (8) attachments.

Please update what I have submitted previously.

Thank you!

Ann McKibben

Dear Mr. Ormsby –

I am submitting comments on the Notice of Preparation (NOP) for the MoVal 2040: Comprehensive GPU, HE & CAP.

I have attached eight (8) PDF files to this email:

- Moreno Valley Cover Letter Bob Sydnor July 29, 2005
- Moreno Valley Geological Review Bob Sydnor 29 July 2005
- Moreno Valley Geology Bibliography 29 July 2005
- Moreno Valley PGA & II, Bob Sydnor July 2005
- Moreno Valley Spectra Values Table Bob Sydnor 2005
- Moreno Valley Earthquake Spectra Bob Sydnor 2005
- WorldLogisticsCenterNOPComments Michael McKibbenMarch262012

All letters are related to the Geological and Geotechnical Issues in Moreno Valley.

Please include all of the attached letters into the public record for the review of the NOP for the general plan update.

Can you please confirm you have received all the information/all files that I have described?

Thank you for the opportunity to comment.

Sincerely,

Ann McKibben

23296 Sonnet Drive  
Moreno Valley, CA 92557  
(951) 924-8150  
[atmckibben@roadrunner.com](mailto:atmckibben@roadrunner.com)

9 April 2020

Via email: [chriso@moval.org](mailto:chriso@moval.org)

Chris Ormsby, Senior Planner  
Community Development Department  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, CA 92553

Dear Mr. Ormsby:

**Re: Notice of Preparation (NOP) of a Program Environmental Impact Report for MoVal 2040:  
Comprehensive General Plan Update, Housing Element, and Climate Action Plan**

I am submitting the following comment letters regarding the Notice of Preparation (NOP) of a Program Environmental Impact Report for the MoVal 2040: Comprehensive General Plan Update, Housing Element and Climate Action Plan.

Their focus is the geological and geotechnical issues in Moreno Valley.

Attached:

Moreno Valley Cover Letter Bob Sydnor July 29, 2005  
Moreno Valley Geological Review Bob Sydnor 29 July 2005  
Moreno Valley Geology Bibliography 29 July 2005  
Moreno Valley PGA & II, Bob Sydnor July 2005  
Moreno Valley Spectra Values Table Bob Sydnor 2005  
Moreno Valley Earthquake Spectra Bob Sydnor 2005  
WorldLogisticsCenterNOPComments Michael McKibben March 26 2012

The following is a quote from the McKibben letter:

“Geological and Seismic Hazards

Seismic, liquefaction, subsidence and flood hazards in the project area will have significant impacts and must be evaluated and mitigated in the project EIR. These evaluations must go beyond simple compilations of state Alquist-Priolo zone maps for seismic hazards and simple compilations of the FEMA flood zone maps, many of which are more than a decade out of date. More recent literature data must be incorporated.

Public health and safety, especially with regard to the planned construction of infrastructure, cannot be achieved (mitigated to a reasonable level) by hazard maps that are incomplete, inaccurate and seriously out of date. Scientific advances in our knowledge of geotechnical hazards occur quickly, and the information in the EIR must be kept up to date with such advances.

Alquist-Priolo guidelines and legislation require that plans by lead agencies include sufficient analysis based not only on the existing hazard map zones, but also on all other relevant published information on faults and hazards inside and *outside* of those map zones. This is because many recent deadly seismic events have occurred on faults that were not yet officially zoned by the state, or were not recognized to be active (Hart, 1992). The recent Landers, Northridge, Hector Mine and Napa Valley earthquakes are good examples.

Specific geologic hazards that should be evaluated and mitigated are:

- 1) seismic shaking and liquefaction/collapse potential in relation to uniform building codes.
- 2) seismic slumping and ground rupture potential caused by proximity to the active San Andreas, Casa Loma, San Jacinto, and Farm Road faults.
- 3) landslides and slow-motion creep related to active faulting along the project's boundary.
- 4) rupture-induced explosion and fire potential for two major regional natural gas pipelines that cross active faults within or adjacent to the project (see attachment from Topozada et al., 1993).
- 5) any other hazards identified by the state's existing emergency response plan for a major earthquake on the San Jacinto fault in the inland empire.
- 6) flooding, inundation, and hydrocompaction resulting from the increase in the area of Mystic Lake since 1938 and the projection of its areal extent to 2023 (see attachment from Morton et al., 2006)."

Please include all of the six attached letters into the public record for the review of the Notice of Preparation for the general plan update.

Please incorporate all references cited (and their contained references) into Notice of Preparation review process.

Thank you for considering my comments and for the opportunity to comment.

Sincerely,



Ann McKibben  
23296 Sonnet Drive  
Moreno Valley, CA 92557  
(951) 924-8150  
Email: [atmckibben@roadrunner.com](mailto:atmckibben@roadrunner.com)

Six Attachments to letter.



**Department of Conservation**  
**CALIFORNIA GEOLOGICAL SURVEY**

801 K Street • Mail Stop 12-32 • Sacramento, CA 95814-3531  
 telephone 916-323-4399 • TDD 916-324-2555 • Web Site: [conservation.ca.gov/cgs](http://conservation.ca.gov/cgs)

Ms. Cynthia S. Kinser, *Principal Planner*  
 Community Development Department  
 City of Moreno Valley  
 14177 Frederick Street  
 Moreno Valley, CA 92553

cynthiak@moval.org  
 ☎ 951-413-3222

July 29, 2005

**Subject: Geology & Seismology Review of draft Safety Element  
 within the draft General Plan & its draft Environmental Impact Report  
 City of Moreno Valley State Clearinghouse #2000-091075**

Dear Ms. Kinser:

The California Geological Survey has performed a review of the draft Safety Element within the proposed update of the General Plan for Moreno Valley, Riverside County. This is in accordance with §65302g of the Government Code, which instructs the California Geological Survey to review draft Safety Elements of local governments.

There are several significant difficulties with the geologic hazards section within the draft Safety Element. Basically, this draft does *not* reflect current seismology and geology work that has been published in the past two decades years by the California Geological Survey and the U.S. Geological Survey (with offices on the UC Riverside campus). This draft should *not* go forward to final edition; there are many scientific errors.

It is understood that Moreno Valley is undergoing rapid growth of residential tracts, with perhaps 10,000 future homes. However, the geologic hazards in Moreno Valley are among the highest of the 476 cities in California. These geologic hazards include: active faulting, severe to violent earthquake shaking, landslides, liquefaction, subsidence, and coseismic deformation of the ground during earthquakes.

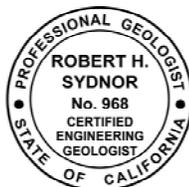
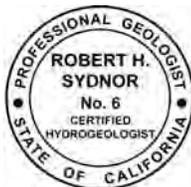
In 1993, the California Geological Survey prepared CGS Special Publication 102, an earthquake planning scenario for the Moreno Valley –Riverside-San Bernardino area. We are concerned that this 219-page publication was not even used or referenced by your consulting planning firm.

On the attached pages, please find a complete geology and seismology bibliography for Moreno Valley, the computation of the earthquake ground motion for Moreno Valley, and detailed commentary why the draft Safety Element does not currently meet minimum state standards. Because Moreno Valley has significant geologic hazards, it is recommended to be prepared by a professional geologist (a California Certified Engineering Geologist).

The California Geological Survey is available to review the second edition of the City's Safety Element. We will provide useful scientific counsel within the seismic-safety planning process.

Please telephone me at 916-323-4399 for further assistance. We look forward to working with you and other officials of the City of Moreno Valley for seismic safety planning.

*Respectfully submitted,*



attachments

Robert H. Sydnor, PG 3267, CHG 6, CPG 4496, CEG 968  
 LM-AEG, LM-AGU, M-EERI, LM-SSA, M-ASCE, M-GSA, LM-AGI  
*Senior Engineering Geologist*  
**California Geological Survey**

**Geologic Review Comments and Suggestions  
by the California Geological Survey**  
California Department of Conservation, The Resources Agency  
**regarding the draft Safety Element**  
*within the draft General Plan for the City of Moreno Valley*  
July 29, 2005  
State Clearinghouse # 2000-091075

**Lack of citation and use of CGS Special Publication 102.**

In 1993, the California Geological Survey prepared a comprehensive 219-page seismic-safety planning document for the Inland Empire (Riverside-San Bernardino greater metropolitan area). The fast-growing Inland Empire has significant geologic hazards that adversely affect all of the infrastructure. This comprehensive earthquake planning scenario was publicly released to all the cities and county governments. We previously sent you copies of SP-102 in 1993. Your sub-consulting planners can purchase additional copies from our website [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)

In the past 12 years, it has been widely used by dozens of cities in the Inland Empire for seismic-safety planning within their respective Safety Elements. It contains extensive colored plates and a good bibliography of geology and seismology.

**CGS Recommendation:** Moreno Valley extract and adapt as much information as possible from CGS Special Publication 102.

**Lack of Geology and Seismology Bibliography for Moreno Valley**

The current draft documents lack proper references to published seismology and geology reports and maps. Citizens of Moreno Valley, city officials, consulting planners for various future EIRs, developers, and consulting geologists: all of these rely on comprehensive and up-to-date geologic maps regarding seismic hazards. The USGS geologic map of the Sunnymead Quadrangle (Morton, 2001, USGS OFR 01-450) was not used or referenced. The page-sized geologic map that was provided has numerous graphic errors and cannot be read or used.

**CGS Recommendation:** a comprehensive 14-page bibliography has been prepared by this reviewer to assist the City of Moreno Valley. It is meant to be used unchanged in the Appendix of the Safety Element (not retyped, not parsed, not edited for brevity by sub-consultants).

The new 14-page bibliography is divided into convenient sections: ① Regional Geology of Moreno Valley; ② Landslides; ③ Seismic Safety, Land-Use Planning, Building Codes; ④ Homeowner Information on Seismic Safety; ⑤ Seismology & Earthquake Engineering; ⑥ Geotechnical Engineering (including liquefaction) & ASTM tests for earthwork, and ⑦ Lifelines.

The purpose of a comprehensive bibliography is to convey this body of scientific knowledge to a wide spectrum of users, to keep the Safety Element in a concise format, and lastly, to set a minimum threshold for “adequacy” of future planning documents and consulting geologic reports for subsequent residential tract development.

**Lack of Description of Geologic Units**

The geologic units and formations of Moreno Valley are entirely omitted. Instead the planning documents confuse agricultural soils with geologic formations. Future earthquakes will shake the granitic rocks of the Lakeview Pluton much differently from sedimentary rocks of the San Timoteo Badlands, and the deep soft alluvium of the San Jacinto graben. Agricultural soils maps should be used for farmland mapping, not seismic safety.

**CGS Recommendations:** The text of the Safety Element should use the geologic formations shown in Morton (2001, Sunnymead Quadrangle); and Morton (1999, Santa Ana 30×60 minute Quadrangle, a beautiful regional geologic map at 1:100,000-scale. Dr. Douglas Morton, USGS emeritus, can be occasionally reached at his US Geological Survey offices in the Department of Earth Sciences, University of California at Riverside. He is honorably retired after 40 years of dedicated service, but still visits his USGS office from time-to-time. His USGS geologic maps can be freely downloaded from the Internet [www.usgs.gov](http://www.usgs.gov) and consultants are expected to obtain their own digital versions, which then can be printed on-demand by a local vendor. Reference copies can be viewed at the Physical Sciences Library of the University of California, Riverside.

### **Improper Evaluation of Earthquake Ground-Motion**

Moreno Valley is situated astride the active San Jacinto Fault, and nearby active seismogenic faults include the San Andreas Fault and the Elsinore Fault. The Safety Element and the draft EIR dismiss the exposure to earthquake shaking. Modern comprehensive maps, such as CGS Map Sheet 48, are not even referenced or extracted. The draft EIR (written by unqualified persons; not professional geologists or seismologists) is greatly mistaken that earthquake shaking is “not significant.” On the contrary, the earthquake shaking for Moreno Valley is among the highest in California.

To correct this misinformation, the California Geological Survey has performed a complete seismology calculation of the earthquake ground motion for Moreno Valley. We selected an arbitrary centroid of the city at the corner of Alessandro Boulevard and Redlands Boulevard. This intersection of two major boulevards is well-known to residents of Moreno Valley. The calculated ground motion will be higher in the eastward direction towards the San Jacinto Fault, and slightly lower in the westward direction (towards March Air Force Base).

The results of our CGS seismology calculations are attached in three pages: a spectral diagram, a table of spectral values, and a table that shows Moreno Valley in relation to other levels of shaking, acceleration, and intensity. These pages are suggested to be included in the text of the Safety Element.

If ordinary default values from the Building Code are used, then the ground motion is taken at Peak Ground Acceleration, **PGA 0.55g** at this location. If Moreno Valley is like other California cities in Seismic Zone 4, it can be inferred that the City Building Official is possibly accepting these low default values --- without realizing that the *computed* earthquake ground-motion is actually *much higher*: **PGA ≈ 0.86g** for the Design Basis Earthquake ground-motion. It is a “significant” difference for the Structural Engineer to design buildings (such as residential tract homes) to PGA ≈ 0.86g. In the northeastern area of Moreno Valley, the ground-motion near the San Jacinto Fault zone is even higher.

**CGS Recommendations:** Include the 3 pages of calculated ground motion in the Safety Element. Change the CEQA finding in the EIR for earthquake shaking to “significant.” It is recommended that the City retain a consulting Certified Engineering Geologist who is experienced in seismic hazards to plan-check the in-coming geologic reports for various residential and commercial structures. This would be a “significant” new cost for the city — hiring additional technical staff — but the costs would be passed through from incoming building-permit fees. Ten-thousand new homes should not be built in a city with high exposure to severe geologic hazards — without adequate oversight and scrutiny from a California Certified Engineering

Geologist retained by the city. The city plan-check counter is “where-the-rubber-meets-the-road” for seismic safety planning and effective Code enforcement.

Note that earthquake ground-motion can also be readily calculated for a dozen other locations in Moreno Valley that would be representative of different geologic subgrade. This new seismology information could then be used for smaller projects (such as a garage or patio), and voluntary seismic retrofit upgrades for existing older homes.

### **Alquist-Priolo Earthquake Fault Zoning Act**

The existing draft Safety Element and draft EIR mistakenly uses the older name of this act. The name was changed 11 years ago in 1994 by Senator Alfred Alquist. Your consulting planners have evidently not kept abreast in the past decade. Dozens of references to the “special studies” zones should be editorially changed to the new legal name. Extracts of the Alquist-Priolo Earthquake Fault Zones should be shown at full scale 1:24,000 (as a strip map) in the text of the Safety Element, not reduced or stylized. The three official quadrangles are Sunnymead (1974), El Casco (revised 1995), and Lakeview (revised 1988). It is recommended that the Safety Element state that citizens can obtain ozalid copies of the official quadrangles from the City of Moreno Community Planning Department. The California Geological Survey has not yet zoned the “Farm Road strand” of Park and others (1995) as an active fault. As an interim measure, the Safety Element of Moreno Valley can emulate the work of Riverside County and show this secondary fault on the city planning map. Consulting Engineering Geologists for various residential developers should continue to evaluate the “Farm Road strand” because there is reported evidence from Dr. Douglas M. Morton, USGS @ UCR, of tectonic bulging (uplift) on Alessandro Boulevard.

### **Liquefaction and Seismic Settlement**

The draft Safety Element and the draft EIR dismisses any potential for seismically-induced liquefaction in the City of Moreno Valley and its extended sphere of influence. This is not correct. The California Geological Survey has zoned about 120+ quadrangles for seismically-induced liquefaction in southern California and the Bay Area. Unfortunately, we were restricted by provisions of the Stafford Act to use the FEMA funding only in counties that had suffered damage from the 1994 Northridge Earthquake and the 1989 Loma Prieta Earthquake. We have recently begun work in the Inland Empire and are presently zoning liquefaction potential along the nearby Elsinore Fault.

**CGS Recommendations:** The Moreno Valley Safety Element should cite and reference Special Publication 117 and 118 (see attached bibliography). Historic-high water table will be used for zonation purposes. The city should follow the liquefaction zoning that is outlined in the Riverside County Safety Element. A complete list of current liquefaction references is provided in the attached bibliography (under Geotechnical Engineering). The city should begin requiring calculations for seismic settlement for all alluvial sites, regardless of the depth of the water table.

**Lack of congruence** with the new 2003 General Plan of Riverside County.

The new Safety Element for Moreno Valley is significantly different from the new Safety Element for Riverside County (legally adopted October 7, 2003). The new County Safety Element took a professional consulting geology firm several years to compile using GIS mapping for geologic hazards. It is a wealth of reliable scientific information regarding active faults, basic geologic mapping, landslides, liquefaction, and earthquake shaking. The geologic consulting firm who prepared the suite of geologic hazard maps for Riverside County Planning Department was Earth Consultants International, Tustin (Tania Gonzalez, CEG 1859, ☎714-412-2654).

**CGS Recommendation:** It is recommended that the consulting planners for Moreno Valley obtain the new 2003 Riverside County General Plan. Much of this can be readily adapted for Moreno Valley, with the same format and the same analysis for the city's Safety Element.

**Subsidence and Fissuring in the San Jacinto Graben**

Mapping by USGS geologist Dr. Douglas Morton indicates a zone of fissuring and surface deformation. He first published this in 1977, with subsequent mapping in 1999 (see attached references). This subsidence and fissuring is apparently due to a combination of ground-water conditions and tectonic faulting. This information should be faithfully copied to the base maps of the City of Moreno Valley, and incorporated into the planning process as a geologic hazard

**CGS Recommendation:** Prudent city zoning would create a green-belt along this zone of subsidence and fissuring, with emphasis on parks, open-space, athletic fields, hiking trails, and equestrian stables. This deformation zone would also have required investigations by the consulting Certified Engineering Geologist for residential tract developers. The City Building Official might inspect existing homes and confer with homeowners for a voluntary seismic retrofit and strengthening (underpinning) of structural foundations.

**Landslides**

Landslides are abundant in the San Timoteo Badlands in the northeastern sector of the sphere of influence of the City of Moreno Valley. Refer to extensive landslide publications in the attached bibliography. The landslide hazard in Moreno Valley includes both debris-flows and mudslides (particularly after wildfires and intense rains), and seismically-induced landslides. The current draft of the Safety Element incorrectly downplays the hazard of landslides. They are significant, but can be mitigated — provided a Certified Engineering Geologist and Registered Geotechnical Engineer utilizes procedures outlined in CGS Special Publication 117; and Blake, Hollingsworth, and Stewart (2002) as shown in attached references.

**CGS Recommendation:** The Safety Element should show existing landslides and designate areas of steep terrain within weak sedimentary rocks that are susceptible to landslides.

**Lifelines**

Moreno Valley is highly unusual inasmuch as numerous lifelines cross the San Jacinto Fault in an east-west direction (roughly parallel to Highway 60) and bisect the city. These lifelines include high-pressure natural gas transmission lines that are expected to explode and burn from 3 to 4 meters of direct rupture on the plane of the San Jacinto Fault. Natural gas-transmission lines have automatic shut-off valves planned for these fault crossings, but it is important for the fault crossing area to be a permanent green-belt. Green belts only happen if adroit planning is undertaken by the City of Moreno Valley.

A relevant example of a fault-crossing is the Questar Southern Trails natural gas-transmission line that brings gas from the Four-Corners area across Utah and Arizona, and then into California. It cuts across the San Jacinto Fault south of Highway 60, through Moreno Valley, north of March AFB, then through Santa Ana Canyon where it crosses the active Elsinore-Whittier Fault. The western terminus of Questar Southern Trails pipeline is Long Beach. For further information, refer to Map Sheets 6 and 7 of the Questar Southern Trails pipeline atlas; this is found in FERC Docket CP99-163-00 and California State Clearinghouse # 99041103. The Final EIR was certified by the State Lands Commission in July 2000 after extensive hearings. There were adverse geologic review comments by the California Geological Survey regarding crossings of active faults. To resolve the impasse, Utah-based Questar subsequently hired an excellent Tustin-based consulting engineering geology firm (with California Certified Engineering Geologists) to re-evaluate their pipeline where it crossed active faults 17 times through Southern California.

**CGS Recommendation:** The Moreno Valley Safety Element should have a special map atlas of all lifelines in relation to known geologic hazards (fault crossings, landslides, co-seismic deformation, fissuring, subsidence). Appropriate prudent zoning should be undertaken by the city (depending on the type of lifeline). City planners should confer with the major utilities; then using GIS methods, convert utility lifeline atlas pages to the city basemap. Underground Service Alert (USA) signs should be posted along sensitive lifelines (such as natural-gas transmission lines).

Please note that CCR Title 5, Education Code, §17213 prohibits the acquisition of a school site by a school district if the site "contains one or more pipelines, situated underground or above ground, which carried hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line which is used only to supply natural gas to that school or neighborhood." The California Public Resources Code §21151.8 uses the same language about gas pipelines with reference to approval of environmental impact reports or negative declarations. (See CCR Title 5, §14010h.). Natural gas transmission lines (with >80 psi) should not be within a 1,500 foot radius of any public school campus. Prudent advance zoning by the City of Moreno Valley can preclude these kinds of predicaments. It is suggested that both the school district and the utility companies work with the Moreno Valley planners for appropriate zonation of lifeline corridors.

### **City Geologist for the City of Moreno Valley**

The current draft Safety Element and the remainder of the General Plan does not consider the full impact of the addition of ±10,000 homes to the workload of the staff of the city. Moreno Valley has significant geologic hazards. It is inferred that current plan-check officials within the Building Department and the Community Development Department do not have a scientific background in seismology, engineering geology, and geotechnical engineering.

**CGS Recommendation:** The City of Moreno Valley should plan for the internal addition of a California Certified Engineering Geologist to be part of the plan-check process for grading permits and residential development of extensive new tracts. This could either be a part-time consultant, and evolve gradually into a full-time civil servant position (depending on the growth rate of the city). The City Geologist would be in close professional contact with the Riverside County Geologist, the California Geological Survey, the U.S. Geological Survey, and the geology department at the University of California, Riverside. It would be a win-win situation for both the citizens of Moreno Valley and the developers — effective implementation of prudent seismic safety planning, with proper earthwork and grading.

### Seismic Retrofit for Homeowners

The draft Safety Element does not adequately address the problem of existing older structures in Moreno Valley. Many of these probably need seismic retrofit for the coming earthquake, and prudent owners would voluntarily do so — if they only knew the specifics.

**CGS Recommendation:** Our bibliography provides the new retrofit booklet for homeowners written by the California Seismic Safety Commission. Copies can be made available in Moreno City offices, and at local building suppliers and public libraries. Citizens can freely download this from the internet. [www.seismic.ca.gov](http://www.seismic.ca.gov)

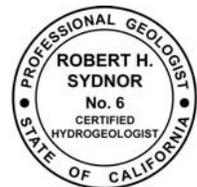
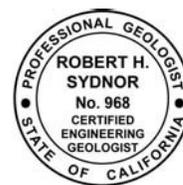
### Closure

The California Geological Survey appreciates this opportunity to comment on the draft Safety Element within the draft General Plan for the City of Moreno Valley. We have performed this review under authority of §65302g of the Government Code. The current draft does not meet minimum standards, but we are optimistic that it can be properly rewritten by a professional geologist. When you have prepared the subsequent draft of the Safety Element, please send it directly to us at the address below. There is a substantial time-delay if it is sent through the State Clearinghouse.

The trend in Safety Elements is to provide a concise summary of geologic hazards, then lead the reader to the proper geologic maps, appropriate Code sections, and hyperlinks to technical engineering geology and seismology information (often free or low-cost).

The California Geological Survey is pleased to provide assistance to the 476 cities and 58 counties in California to achieve our mutual goal of seismic safety planning and reduction of losses due to earthquakes and related geologic hazards. Please call me if there are any questions about this geologic review.

*Respectfully submitted,*



Robert H. Sydnor

*Senior Engineering Geologist*

PG 3267, CHG 6, CPG 4496, CEG 968

LM-AEG, LM-AGU, LM-AAAS, LM-SSA, LM-CAS, LM-AGI

M-EERI, M-GSA, M-ASCE, M-ASTM, M-NAGT, M-NGWA, M-IAEG

### California Geological Survey

801 K Street, Mail Stop 12-32

Sacramento, CA 95814-3531

*office phone:* 916 - 323 - 4399

*office hours:* 9:00 AM to 6 PM, Monday-Friday

*e-mail:* [Robert.Sydnor@conservation.ca.gov](mailto:Robert.Sydnor@conservation.ca.gov)

*CGS homepage:* [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)

# Engineering Geology and Seismic Safety Bibliography for the City of Moreno Valley

Riverside County, California

Compilation on July 29, 2005 by the

## California Geological Survey

California Department of Conservation, The Resources Agency of California

*in cooperation with the City of Moreno Valley*

*for use within the Safety Element of the General Plan*

*This is an abbreviated list with concise focus on newer publications in engineering geology, seismology, geotechnical engineering, and seismic safety planning for the City of Moreno Valley. This bibliography has been parsed and adapted for the geology of City of Moreno Valley, so it is not appropriate to extrapolate it for other cities in Riverside County that have different geologic conditions.*

*It is recommended to use GeoRef and GeoScience World bibliographic search engines for a comprehensive bibliography, including unpublished thesis work from the University of California at Riverside. Numerous unpublished consulting geology reports for individual parcels and residences cannot be included since they have never been submitted to GeoRef for formal indexing in library science and are not publicly available. Refer to archives of city building permits for geological reports on specific projects.*

*Especially useful published references are marked with a star ★ symbol to assist the reader. Inclusion within this bibliography does not imply official endorsement, and omission from this concise list does not imply lack of suitability. This abbreviated list will need to be updated periodically to include new publications in engineering geology and seismic safety for the City of Moreno Valley.*

## Regional Geology for Moreno Valley

★ Albright, L. Barry, 1997, Magnetostratigraphy and biochronology of the San Timoteo badlands, southern California, with implications for local Pliocene–Pleistocene tectonic and depositional patterns: *Geological Society of America Bulletin*, vol. 111, p. 1265–1293.

*This geologic mapping is within the sphere of influence for the City of Moreno Valley, so it is considered an essential reference. Dr. Albright received his PhD on the geology and paleontology of the San Timoteo badlands from the University of California at Riverside.*

Albright, L. Barry, 1999, Biostratigraphy and vertebrate paleontology of the San Timoteo Badlands, Southern California: *University of California Publications in the Geological Sciences*, vol. 144, 121 p. *This is the northeastern portion of the City of Moreno Valley sphere of influence on the El Casco Quadrangle.*

Anderson, Megan, Matti, Jonathan C., and Jachens, Robert, 2004, Structural model of the San Bernardino basin, California, from analysis of gravity, aeromagnetic, and seismicity data: *AGU Journal of Geophysical Research*, vol. 109, B04404, published on-line April 6, 2004.

Apoian, Mark D., 1997 Spatial variability in hydrochemistry in the Moreno, Perris, and San Jacinto valleys, western Riverside County, California: University of California, Riverside, unpublished Master of Science thesis, 110 p.

Bennett, Richard A., Friedrich, Anke M., and Furlong, Kevin P., 2004, Codependent histories of the San Andreas and San Jacinto fault zones from inversion of fault displacement rates: *Geology*, vol. 32, no. 11, November 2004 issue, p. 961-964.

Bent, Allison L., and Helmberger, Donald V., 1991, A reexamination of historic earthquakes in the San Jacinto fault zone, California: *Bulletin of the Seismological Society of America*, vol. 81, no. 6, p. 2289-2309.

Biasi, Glenn P., Weldon, Ray J., Fumal, Thomas E., and Seitz, Gordon G., 2002, Paleoseismic event dating and the conditional probability of large earthquakes on the southern San Andreas Fault, California: *Bulletin of the Seismological Society of America*, vol. 92, no. 7, October 2002 issue.

- Blythe, Ann E., House, Martha A., and Spotila, James A., 2002, Low-temperature thermochronology of the San Gabriel and San Bernardino Mountains, southern California: constraining structural evolution, *in* Barth, Andrew, *editor*, Contributions to Crustal Evolution of the Southwestern United States – the Perry Lawrence Ehlig memorial volume: Geological Society of America, Special Paper 365, p. 231–250.
- Cao, Tianqing, Bryant, William A., Rowshandel, B., Branum, David, and Wills, Christopher J., 2003, The revised 2002 California probabilistic seismic hazards maps: California Geological Survey, posted as .pdf on CGS website, June 2003: [www.conservation.ca.gov/cgs/rghm/psha](http://www.conservation.ca.gov/cgs/rghm/psha)
- ◆ Report, 11 p., with Appendix A (Type A, B, C faults):
  - ◆ Table of Type A Faults, 2 p.
  - ◆ Table of Type B Faults, 15 p.
  - ◆ Table of Type C Faults (= area sources), 1 p.
  - ◆ References for 2002 California Fault Parameters, 9 p.
- This is the new 2002 statewide seismotectonic model used in probabilistic seismic hazard analysis by the California Geological Survey. CCR Title 24 projects (hospitals and schools) will be measured and evaluated against this PSHA model and its fault data-base that reflects a broad consensus of the seismology and engineering geology profession. This report updates and supersedes Petersen and others, CGS Open-File Report 96-08, which was the 1996 statewide consensus model. CGS OFR 96-08 contains 33 pages of text that remains as a pertinent explanation of PSHA methodology for California. The notable upgrade from 1996 to 2002 is the revised database of seismogenic faults (particularly slip-rates, Mmax, recurrence intervals, and fault segmentation).*
- Cotton, William R., Dickey, Robert H., and Edwards, S., 1973, Activity of the Reiche Canyon Fault, Moreno Valley, Riverside County: Association of Engineering Geologists, *AEG Bulletin*, vol. 16, p. 30 (annual meeting abstract).
- Eppes, Martha C., McFadden, Leslie D., Matti, Jonathan C., and Powell, Robert, 2002, Influence of soil development on the geomorphic evolution of landscapes — an example from the Transverse Ranges of California: *Geology*, vol. 30, p. 195-198.
- Fumal, Thomas E., and Tinsley, John C., III, 1985, Mapping Quaternary sedimentary deposits for areal variations in shaking response, *in* Ziony, J.I., *editor*, 1985, Evaluating earthquake hazards in the Los Angeles region: U. S. Geological Survey Professional Paper 1360, 505 p. Refer to p. 111 for Moreno Valley
- Harden, Jennifer W., and Matti, Jonathan C., 1989, Holocene and Pleistocene slip-rates on the San Andreas Fault in Yucaipa, California using displaced alluvial-fan deposits and soil chronology: *Geological Society of American Bulletin*, vol. 101, no. 9, p. 1107–1117.
- Hart, Earl W., and Bryant, William A., 1997, Fault-rupture hazard zones in California: California Geological Survey, Special Publication 42, 1997 edition with 1999 supplements, 38 p. *The active San Jacinto Fault has been legally zoned under the Alquist-Priolo Earthquake Fault Zoning Act. SP-42 is the definitive official CGS publication to cite for the Sunnymead, El Casco, and Lakeview Quadrangles that are covered by the City of Moreno Valley and its sphere of influence. Do not confuse Alquist-Priolo Earthquake Fault Zoning Act with the Seismic Hazards Zoning Act (landslides and liquefaction).*
- Jennings, C.W., 1994, Fault activity map of California and adjacent areas: California Division of Mines and Geology, Geologic Data Map No. 6, scale 1:750,000.
- Kendrick, Katherine J., and McFadden, Leslie D., 1996, Comparison and contrast of processes of soil formation in the San Timoteo Badlands with chronosequences in California: *Quaternary Research*, vol. 46, no. 2, p. 149-160.
- ★Kendrick, Katherine J., and Graham, Robert C., 2004, Pedogenic silica accumulation in chronosequence soils, southern California: *Soil Science Society of America Journal*, vol. 68, p. 1295-1303. *The field localities are the San Timoteo Badlands and Cajon Pass. These geologists are at the US Geological Survey and University of California Riverside.*
- ★Kendrick, Katherine J., Morton, Douglas M., Wells, Stephen G., and Simpson, Robert W., 2002, Spatial and temporal deformation along the northern San Jacinto Fault, southern California: implications for slip rates: *Bulletin of the Seismological Society of America*, vol. 92, no. 7, October 2002 issue, p. 2782–2802.
- Kendrick, Kathryn J., McFadden, Les, and Morton, D.M., 1994, Soils and slip rates along the northern San Jacinto Fault, *in* McGill, Sally F., and Ross, Timothy M., *editors*, Geological Investigations of an Active Margin: Geological Society of America, Cordilleran Section Guidebook, 27<sup>th</sup> Annual Meeting, San Bernardino, pages 146-151.
- Magistrale, Harold, and Sanders, C., 1996, Evidence from precise earthquake hypocenters for segmentation of the San Andreas Fault in San Gorgonio Pass: *Journal of Geophysical Research*, vol. 101, p. 3031–3044.

- Marquis, Samuel A., Jr., and Stewart, Edward, 1994, The delineation of wellhead protection areas in fractured bedrock terrains using groundwater flow models: Proceedings of the 8<sup>th</sup> National Outdoor Action Conference & Exposition, *Ground Water Management*, vol. 18, p. 327-343. *The study area is the Moreno Valley.*
- Matti, Jonathan C., Morton, Douglas M., Cox, Brett F., Carson, Scott E., and Yetter, T.J., 2003, Geologic map and digital database of the Yucaipa 7½-minute quadrangle, San Bernardino and Riverside Counties, California: U.S. Geological Survey, Open File Report 03-301, map scale 1:24,000.
- Matti, Jonathan C., Morton, Douglas M. and Cox, Brett F., 1992, The San Andreas fault system in the vicinity of the central Transverse Ranges province, southern California: U.S. Geological Survey Open-File Report 92-354, 62 p.
- May, Steven R., and Repenning, Charles A., 1982, New evidence for the age of the Mount Eden fauna, southern California: *Journal of Vertebrate Paleontology*, vol. 2, no. 1, p. 109-113.
- Merrifield, Paul M., and Lamar, Donald L., 1984, Possible strain events reflected in water-levels in wells along the San Jacinto Fault zone, southern California: *Pure and Applied Geophysics*, vol. 122, no. 2-4, p. 245-254. *Dr. Merrifield and Dr. Lamar spent many years in the late 1970s and early 1980s carefully monitoring water wells in the Moreno Valley-San Jacinto graben. They prepared annual reports of their studies (as Open-File Reports by the USGS). This published journal article conveniently summarizes their entire project.*
- ★Morton, Douglas M., 2001, Geologic map of the **Sunnymead 7½-minute Quadrangle**, Riverside County, California: U.S. Geological Survey Open-File Report 01-450, map scale 1:24,000. [www.usgs.gov](http://www.usgs.gov)
- ★Morton, Douglas M., 1999, Preliminary digital geologic map of the Santa Ana 30×60-minute quadrangle, southern California: U.S. Geological Survey Open-File Report 99-172, map scale 1:100,000. *Covers the City of Moreno Valley — this geologic map should be used for a page-sized regional planning map that is then keyed to the Sunnymead Quadrangle at 1:24,000-scale.*
- ★Morton, Douglas M., 1977, Surface deformation in part of the San Jacinto Valley, southern California: *Journal of Research of the U.S. Geological Survey*, vol. 5, no. 1, p. 117-124.
- ★Morton, Douglas M., and Matti, Jonathan C., 1993, Extension and contraction within an evolving divergent strike-slip fault complex: the San Andreas and San Jacinto fault zones at their convergence in southern California, in Powell, R.E., Weldon, R.J.II, and Matti, J.C., editors, The San Andreas fault system: displacement, palinspastic reconstruction, and geologic evolution: Geological Society of America, *Memoir 178*, p. 217-230.
- Morton, Douglas M., and Matti, Jonathan C., 1989, A vanished late Pliocene to early Pleistocene alluvial-fan complex in the northern Perris Block, southern California, in Colburn, I.P., Abbott, P.L., and Minch, J.A., editors, *Conglomerates in Basin Analysis*, the A.O. Woodford memorial volume: Society of Economic Paleontologists and Mineralogists, Pacific Section SEPM, vol. 62, p. 73-80.
- Morton, Douglas M., Alvarez, R.M., and Campbell, Russell H., 2003, Preliminary soil-slip susceptibility maps, southwestern California: U.S. Geological Survey, Open-File Report 03-17.
- Nicholson, C., Seeber, L., Williams, P., and Sykes, L.R., 1986, Seismicity and fault kinematics through the eastern Transverse Ranges, California: block rotation, strike-slip faulting, and low-angle thrusting: *Journal of Geophysical Research*, v. 91, p. 4891-4908.
- Norton-Hehn, Victoria, MacFadden, Bruce J., Albright, L. Barry, and Woodburne, Michael O., 1996, Magnetic polarity, stratigraphy, and possible differential tectonic rotation of the Miocene-Pliocene mammal-bearing San Timoteo Badlands, southern California: *Earth & Planetary Science Letters*, vol. 141, no. 1-4, p. 35-49.
- ★Park, Stephen K., Pendergraft, Darin, Stephenson, William J., Shedlock, Kaye M., and Lee, Tien Chang, 1995, Delineation of intrabasin structure in a dilational jog of the San Jacinto Fault Zone, southern California: *Journal of Geophysical Research*, vol. 100, no. B-1, p. 691-702.
- ★Petersen, Mark D., Beeby, D.J., Bryant, W.A., Cao, C., Cramer, C.H., Davis, J.F., Reichle, M., Saucedo, G., Tan, S., Taylor, G., Topozada, T., Treiman, J., and Wills, C.J., 1999, Seismic shaking hazard maps of California: California Geological Survey, Map Sheet 48, published July 1, 1999, approximate scale  $\cong$  1:2,127,600 [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)  
*This statewide shaking map is recommended for use by the Moreno Valley Planning Department. It shows that the ground-motion within Moreno Valley is among the highest in California.*
- Powell, Robert E., Weldon, Ray J., II, and Matti, Jonathan C., editors, 1993, The San Andreas fault system: displacement, palinspastic reconstruction, and geologic evolution: Geological Society of America, *Memoir 178*, 10 papers, 8 plates in map case, 332 p.

- Proctor, Richard James, Geologic features of a section across the Casa Loma Fault (a branch of the San Jacinto Fault), exposed in an aqueduct trench near San Jacinto, California: *Bulletin of the Geological Society of America*, vol. 73, no. 10, p. 1293-1295.
- Reynolds, Robert E., and Reeder, Wessly A., 1986, Age and fossil assemblages of the San Timoteo Formation, Riverside County, California, in Kooser, M.A., and Reynolds, R.E., editors, *Geology around the Margins of the eastern San Bernardino Mountains: Publications of the Inland Geological Society*, vol. 1, p. 51-56. *The San Timoteo Badlands on the northeastern side of Moreno Valley contain a rich faunal assemblage. Also refer to the paleontology report by Albright (1999). Because the fossils may affect land-use development, they need to be discussed and evaluated in the General Plan for the City of Moreno Valley.*
- Sadler, Peter M., Kooser, Marilyn A., Renfrew, James M., Hillenbrand, John M., 1989, Conglomerates and the reconstruction of strike-slip fault zones; lessons from the Transverse Ranges, southern California, in Colburn, I.P., Abbott, P.L., and Minch, J.A., editors, *Conglomerates in Basin Analysis, the A.O. Woodford memorial volume: Society of Economic Paleontologists and Mineralogists, Pacific Section SEPM*, vol. 62, p. 33-52.
- ★ Sadler, Peter M., and Morton, Douglas M., editors, 1989, Landslides in a semi-arid environment, with emphasis on the inland valleys of southern California: University of California, Riverside, *Publications of the Inland Geological Society*, vol. 2, 386 pages.
- ★ Sanders, Christopher, and Magistrale, Harold, 1997, Segmentation of the northern San Jacinto fault zone, southern California: *Journal of Geophysical Research*, v. 102, no. B-12, p. 27,453 - 27,467.
- Schlehuber, Michael J., Lee, Tien Chang, and Hall, Bradley S., 1989, Groundwater level and hydrochemistry in the San Jacinto Basin, Riverside County, California: *Journal of Hydrology*, vol. 106, no. 1-2, p. 79-98.
- Seeber, Leonardo and Armbruster, J.G., 1995, The San Andreas Fault system through the Transverse Ranges as illuminated by earthquakes: *Journal of Geophysical Research*, v. 100, no. B5, p. 8285–8310.
- Sharp, Robert Victor, 1967, San Jacinto fault zone in the Peninsular Ranges of southern California: *Bulletin of the Geological Society of America*, vol. 78, no. 6, p. 705-729. *This Caltech PhD dissertation is the seminal work on the San Jacinto Fault.*
- Sieh, Kerry E., 1996, The repetition of large-earthquake ruptures, in Knopoff, L., Aki, K., Allen, C.R., Rice, J.R., and Sykes, L.R., *convenors*, Earthquake Prediction – the scientific challenge: *Proceedings of the National Academy of Sciences*, v. 93, p. 3764-3771, April 1996.
- Sieh, Kerry E., and Matti, Jonathan C., 1992, Earthquake geology, San Andreas Fault System, Palm Springs to Palmdale: Association of Engineering Geologists, 35<sup>th</sup> Annual Mtg. in Long Beach, field trip guidebook & reprint volume published by So. Calif. Section of AEG, 165 pages of reprinted papers.
- Spotila, James A. and Sieh, Kerry E., 2000, Architecture of transpressional thrust faulting in the San Bernardino Mountains, southern California, from deformation of a deeply weathered surface: *Tectonics*, vol. 19, no. 4, p. 589–615.
- Spotila, James A., House, Martha A., Blythe, Ann E., Niemi, Nathan A., and Bank, Gregory C., 2002, Controls on the erosion and geomorphic evolution of the San Bernardino and San Gabriel Mountains, southern California, in Barth, Andrew, editor, *Contributions to Crustal Evolution of the Southwestern United States — the Perry Lawrence Ehlig memorial volume: Geological Society of America, Special Paper 365*, p. 205–230.
- Spotila, James A., Farley, Kenneth A., and Sieh, Kerry E., 1998, Uplift and erosion of the San Bernardino Mountains, associated with transpression along the San Andreas Fault, California, as constrained by radiogenic helium thermochronometry: *Tectonics*, vol. 17, p. 360–378.
- Spotila, James A., Farley, Kenneth A., Yule, J. Douglas, and Reiners, Peter W., 2001, Near-field transpressive deformation along the San Andreas fault zone in southern California, based on exhumation constrained by (U–Th) / He dating: *Journal of Geophysical Research*, vol. 106, no. B–12, p. 30909 to 30922. *Indicates vertical exhumation of Yucaipa Ridge at rate of  $\approx 5$  to 7 mm/year and total exhumation of  $\approx 3$  to 6 km since 1.8 Ma.*
- Stephenson, William J., Odum, J.K., Williams, R.A., and Anderson, M.L., 2002, Delineation of faulting and basin geometry along a seismic reflection transect in urbanized San Bernardino Valley, California: *Bulletin of the Seismological Society of America*, vol. 92, no. 6, August 2002 issue, p. 2504–2520.

- Streit, Jürgen E., 1999, Conditions for earthquake surface rupture along the San Andreas Fault system, California: *Journal of Geophysical Research*, vol. 104, no. B-8, August 10, 1999 issue, p. 17,929 to 17,939. *Emphasis on the bends in the fault azimuth in the San Bernardino Valley-Moreno Valley area as the probable location for future large earthquakes.*
- ★Toppozada, T.R., Borchardt, G., Hallstrom, C., Johnson, C., Per, R., and Lagario, H. 1993, Planning scenario for a major earthquake on the San Jacinto fault, Riverside and San Bernardino Counties, California: California Geological Survey, Special Publication 102, 219 p. *An essential reference for seismic safety planning in Moreno Valley.*
- Wallace, Robert E., editor, 1990, The San Andreas Fault System, California: U.S. Geological Survey Prof. Paper 1515, 283 pages.
- Weldon, Ray J., Fumal, Thomas E., Biasi, Glenn P., and Scharer, Katherine M., 2005, Past and future earthquakes on the San Andreas Fault: *AAAS Science*, vol. 308, issue #5724, 13 May 2005, p. 966-967.
- Wells, Stephen G., Connell, S.D., and Williamson, T.N., 1994, Soil development in valley floor deposits along the southern margin of the San Timoteo Badlands, Riverside County, California, in McGill, S.F., and Ross, T.M., editors, Geological Society of America, Cordilleran Section annual meeting, Guidebook 27, p. 140-146.
- Williams, Kirk D., 1998, Groundwater modeling in the Moreno and Perris valleys, Riverside County, California: University of California, Riverside, unpublished Master of Science thesis, 178 p.
- Williams, Patrick L., Sykes, Lynn R., Nicholson, Craig, and Seeber, Leonardo, 1990, Seismotectonics of the easternmost Transverse Ranges, California: relevance for seismic potential of the southern San Andreas Fault: *Tectonics*: vol. 9, p. 185-204.
- Wills, Christopher J., and Silva, Walter, 1998, Shear-wave velocity characteristics of geologic units in California: *EERI Earthquake Spectra*, v. 14, no. 3, August 1998, p. 533-556.
- Working Group on California Earthquake Probabilities, 1995, Seismic hazards in southern California: probable earthquakes, 1994 to 2024: *Bulletin of the Seismological Society of America*, v. 85, no. 2, p. 379-439. (available as a reprinted booklet from SCEC)
- Yule, J. Douglas, Fumal, Thomas, McGill, Sally F., and Seitz, Gordon G., 2001, Active tectonics and paleoseismic record of the San Andreas Fault, Wrightwood to Indio, in Dunne, George, and Cooper, John, editors, 2001, Geologic excursions in the California deserts and adjacent Transverse Ranges: Society for Sedimentary Geology, SEPM Pacific Section, Book #88, 126 p.; field trip #4, p. 91-126.
- Yule, J. Douglas, and Sieh, Kerry E., 2003, Complexities of the San Andreas fault near San Geronio Pass: implications for large earthquakes: *AGU Journal of Geophysical Research*, vol. 108, no. B-11, published on the web November 29, 2003, p. 2545; [www.agu.org](http://www.agu.org) doi: 10.1029/2001JB00451, 2003.



## Landslides

(particularly in northeastern Moreno Valley  
with abundant debris-flows and acute erosion)

- Abramson, L.W., Lee, T.S., Sharma, S., and Boyce, G.M., 2001, Slope stability and stabilization methods, 2<sup>nd</sup> edition: John Wiley & Sons, Inc., 736 p.
- ★Blake, Thomas F., Hollingsworth, Robert A., and Stewart, Jonathan P., editors, 2002, Recommended procedures for implementation of CDMG Special Publication 117, *Guidelines for Analyzing and Mitigating Landslide Hazards in California*: Southern California Earthquake Center, 110 p., plus 17 p. appendix, edition of 6-20-2002; CD-ROM and paper text. < [www.scec.org](http://www.scec.org) >
- ★California Geological Survey, 1997, *Guidelines for evaluating and mitigating seismic hazards in California*: California Geological Survey, Special Publication 117, 74 p., 7 chapters, Appendix A, B, C, and D. *Appendix A includes the full text of the Seismic Hazards Mapping Act of 1990.* < [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs) > *SP-117 has been officially adopted by both the California Board of Geologists & Geophysicists and the California State Mining & Geology Board, so the criteria have legal precedent; consulting engineering geologists that perform work in Moreno Valley must meet minimum criteria outlined in SP-117. This is the reason why SP-117 needs to be cited and used in the Safety Element.*
- California Geological Survey, 1999, *Recommended criteria for delineating Seismic Hazards Zones in California*: California Geological Survey, Special Publication 118, 12 p.
- Cornforth, Derek, 2005, Landslides in practice: investigation, analysis, and remedial / preventative options in soils:

- John Wiley & Sons, Inc., 624 p., \$150 list price; 23 chapters, 12 case histories.
- Cruden, David M., and Varnes, David J., 1996, Landslide types and processes, *in* Turner, A.Keith, and Schuster, Robert L., *editors*, Landslides – investigation and mitigation: National Academy Press, Transportation Research Board Special Report 247, chap.3, p. 36–75.
- Duncan, J. Michael, and Wright, Stephen G., 2005, Soil strength and slope stability: John Wiley & Sons, Inc., 312 p.
- Fifield, Jerald S., 2001, Designing for effective sediment and erosion control on construction sites: Forester Press, 318 p. < www.foresterpress.com >
- Fifield, Jerald S., 2001, Field manual on sediment and erosion control best management practices for contractors and inspectors: Forester Press, 160 p. (*spiral-wire bound field-manual*) < www.foresterpress.com >
- Forrester, Kevin, 2001, Subsurface drainage for slope stabilization: American Society of Civil Engineers, ASCE Press, 208 p. www.asce.org
- Ghilardi, P., Natale, L., and Savi, F., 2000, Debris-flow propagation on urbanized alluvial fans, *in* Wiczorek, Gerald F., and Naeser, Nancy D., *editors*, Debris-flow hazards mitigation: mechanics, prediction, and assessment: A.A. Balkema Publishers, Rotterdam; *Proceedings of the Second International Conference on Debris Flows*, p. 471-478.
- Glade, Thomas, Anderson, Malcolm G., and Crozier, Michael J., *editors*, 2005, Landslide hazard and risk: John Wiley & Sons, Inc., 832 p.
- Gray, Donald H., and Sotir, Robbin B., 1996, Biotechnical and soil bioengineering slope stabilization — a practical guide for erosion control: John Wiley & Sons, Inc., 378 p. *Dr. Gray is professor of geotechnical engineering at the University of Michigan and a pioneer in the use of plants and geosynthetics for erosion control and surficial slope stability. This excellent textbook presents ecologically sound alternatives to conventional reinforced concrete retaining walls.*
- Keefer, Robert F., 2000, Handbook of soils for landscape architects: Oxford University Press, 272 p.
- Keller, Edward A., and Pinter, Nicholas, 1996, Active tectonics — earthquakes, uplift, and landscape: Prentice-Hall, 338 pages
- Kruckeberg, Arthur R., 2002, Geology and plant life: the effects of landforms and rock types on plants: University of Washington Press., 304 p., 98 photos, 47 tables, 21 figures. *Geobotany with application to engineering geology.*
- Lee, Tien Chang, Biehler, Shawn, Park, Stephen K., and Stephenson, William J., 1996, A seismic refraction and reflection study across the central San Jacinto Basin, southern California: Geophysics, vol. 61, no. 5, p. 1258-1268.
- Mitchell, James K., and Soga, K., 2005, Fundamentals of soil behavior, 3<sup>rd</sup> edition: John Wiley & Sons, Inc., 608 p.
- ★Morton, Douglas M., Distribution and frequency of storm-generated soil slips on burned and unburned slopes, San Timoteo Badlands, southern California, *in* Sadler, P.M., and Morton, D.M., *editors*, Landslides in a Semi-Arid Environment: Inland Geological Society and the University of California, Riverside, vol. 2, p. 279-284.
- ★Morton, Douglas M., and Sadler, Peter M., 1989, Landslides flanking the northeastern Peninsular Ranges and in the San Gorgonio Pass area of southern California, *in* Sadler, P.M., and Morton, D.M., *editors*, Landslides in a Semi-Arid Environment: Inland Geological Society and the University of California, Riverside, vol. 2, p. 338-355.
- Morton, Douglas M., Alvarez, R.M., and Campbell, Russell H., 2003, Preliminary soil-slip susceptibility maps, southwestern California: U.S. Geological Survey Open-File Report 03–17.
- ★Morton, Douglas M., 1994, Subsidence and ground fissures in the San Jacinto Basin area, southern California, *in* U.S. Geological Survey Subsidence Interest Group Conference: U.S. Geological Survey Open-File Report 94-532, p. 29-31. *This is a key report for the City of Moreno Valley Safety Element because it shows the locations of severe ground fissures and acute subsidence. In the past decade, the fissures have increased. This information needs to be plotted on maps within the Safety Element, so that consulting engineering geologists, developers, and city officials are aware of the extent of the fissuring.*
- Ortigao, Jose A.R., and Sayao, Alberto S.F.J., *editors*, 2004, Handbook of slope stabilization engineering: Springer-Verlag Publishers, 800 p.
- ★Sadler, Peter M., and Morton, Douglas M., *editors*, 1989, Landslides in a semi-arid environment, with emphasis on the inland valleys of southern California: University of California, Riverside, *Publications of the Inland Geological Society*, vol. 2, 386 pages.
- Schumm, Stanley A., *chairman*, and 7 others, 1996, Alluvial fan flooding: National Academy of Sciences, National Academy Press, Commission on Geosciences, Environment, and Resources, 172 p.
- Shanklin, D.W., Rademacher, K.R., and Talbot, J.R., *editors*, 2000, Construction and controlling compaction of earth fills, ASTM Special Technical Publication STP–1384, 336 p. www.astm.org
- Toy, Terrence J., Foster, George R., and Renard, Kenneth G., 2002, Soil erosion: processes, prediction, measurement, and control: John Wiley & Sons, Inc., 352 p., 100 photographs, drawings, and tables.

- Turner, A.K., and Schuster, Robert L., *editors*, 1996, Landslides — investigation and mitigation: National Academy Press, Transportation Research Board Special Report 247, 673 p. *The national treatise on landslides with 25 chapters by a team of geologists and geotechnical engineers.*
- Varnes, David J., 1974, The logic of geological maps, with reference to their interpretation and use for engineering purposes: U.S. Geological Survey Professional Paper 837, 48 p. (*a classic treatise on the preparation of engineering geology maps*)
- Vaughn, Diane M., Real, Charles R., McGuire, Terilee, Swift, Jennifer, Peters, Alexi, and Moskovitz, Robert, 2004, An e-government web portal for dissemination of geotechnical data, in Yegan, M.K, and Kavazanjian, Edward, *editors*, Geotechnical Engineering for Transportation Projects: American Society of Civil Engineers, *Proceedings of Geo-Trans*, held in Los Angeles in July 2004; ASCE Geotechnical Special Publication 126, p. 851–859.
- Wills, Chris J., and McCrink, Timothy P., 2002, Comparing landslide inventories: the map depends on the method: *Environmental & Engineering Geoscience*, AEG–GSA, vol. 8, no. 4, November 2002 issue, p. 279–293.
- Wyllie, Duncan C., and Mah, Christopher W., 2004, Rock slope engineering, 4<sup>th</sup> edition: Spon Press, a division of Taylor & Francis Publishers, 431 p. *This new fourth edition is based on the third edition by Hoek & Bray (1981). This textbook has direct application to rock slopes on the margins of Moreno Valley.*



## Seismic Safety, Land-Use Planning, and Building Codes

- ★ California Department of Water Resources, 2003, Guidebook for implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land-use planning: CDWR, 130 p. [www.owue.water.ca.gov](http://www.owue.water.ca.gov)  
The City of Moreno Valley must comply with the new requirements of Senate Bills 201 and 610 so that adequate water supplies are *demonstrated* prior to zoning and development.
- ★ California Geological Survey, 1997, *Guidelines for evaluating and mitigating seismic hazards in California*: California Geological Survey, Special Publication 117, 74 p., 7 chapters, Appendix A, B, C, and D. (*Appendix A includes the full text of the Seismic Hazards Mapping Act of 1990*) SP-117 is downloadable from the CGS website: < [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs) >  
*SP-117 has been officially adopted by both the California Board of Geologists and Geophysicists and the California State Mining & Geology Board, so the criteria have legal president; consulting engineering geologists that perform work in Moreno Valley must meet minimum criteria outlined in SP-117.*
- California Geological Survey, 1998, Maps of known active fault near-source zones in California and adjacent portions of Nevada: International Conference of Building Officials, Whittier, California, 11 × 17 atlas format.
- California Geological Survey, 1999, *Recommended criteria for delineating Seismic Hazards Zones in California*: California Geological Survey, Special Publication 118, 12 p.
- California Seismic Safety Commission, 1998, The commercial property owner's guide to earthquake safety: SSC Publication 98-01, 40 p. CSSC, 1755 Creekside Oaks Drive, Suite 100, Sacramento, CA 95833, ☎ 916-263-5505. *download from* [www.seismic.ca.gov](http://www.seismic.ca.gov)
- California Seismic Safety Commission, 2002, The homeowner's guide to earthquake safety: SSC Publication 2002-01, 30 p. CSSC, 1755 Creekside Oaks Drive, Suite 100, Sacramento, CA 95833, ☎ 916-263-5505. *download from* [www.seismic.ca.gov](http://www.seismic.ca.gov)  
*This practical and useful booklet is highly recommended for residents of Moreno Valley.*
- California Seismic Safety Commission, 2004, A safer, more resilient California — the state plan for earthquake research: SSC Publication 2004-03, 11 p. CSSC, 1755 Creekside Oaks Drive, Suite 100, Sacramento, CA 95833, ☎ 916-263-5505. *download from* [www.seismic.ca.gov](http://www.seismic.ca.gov)

- California Seismic Safety Commission, 2004, Seismic safety in California's schools: SSC Publication 04-04, 15 p. CSSC, 1755 Creekside Oaks Drive, Suite 100, Sacramento, CA 95833, ☎ 916-263-5505. *download from* [www.seismic.ca.gov](http://www.seismic.ca.gov)
- Cao, Tianqing, Bryant, William A., Rowshandel, B., Branum, David, and Wills, Christopher J., 2003, The revised 2002 California probabilistic seismic hazards maps: California Geological Survey, posted as .pdf on CGS website, June 2003: [www.conservation.ca.gov/cgs/rghm/psha](http://www.conservation.ca.gov/cgs/rghm/psha)
- ◆ Report, 11 p., with Appendix A (Type A, B, C faults):
  - ◆ Table of Type A Faults, 2 p.
  - ◆ Table of Type B Faults, 15 p.
  - ◆ Table of Type C Faults (= area sources), 1 p.
  - ◆ References for 2002 California Fault Parameters, 9 p. *This is the new 2002 statewide seismotectonic model used in probabilistic seismic hazard analysis by the California Geological Survey. CCR Title 24 projects (hospitals and schools) will be measured and evaluated against this PSHA model and its fault data—base that reflects a broad consensus of the seismology and engineering geology profession. This report updates and supersedes Petersen and others, CGS Open-File Report 96-08, which was the 1996 statewide consensus model. CGS OFR 96-08 contains 33 pages of text that remains as a pertinent explanation of PSHA methodology for California. The notable upgrade from 1996 to 2002 is the revised database of seismogenic faults (particularly slip-rates, Mmax, recurrence intervals, and fault segmentation).*
- Curtin, Daniel J., and Talbert, Cecily T., 2004, Curtin's California land use and planning law, 24<sup>th</sup> edition: Solano Press, 22 chap.
- Dewberry, S.O., editor, 2002, Land development handbook, 2<sup>nd</sup> edition: McGraw-Hill Publishing Co., 1,124 p., 700 illustrations (*a ten-year effort by two dozen specialists resulted in a comprehensive handbook on development*)
- Fulton, William, 2003, Guide to California planning, 2<sup>nd</sup> edition: Solano Press, 23 chap., 375 p.
- GeoScience World, 2005, A comprehensive Internet resource for research and communications in the geosciences, built on an aggregation of 30 peer-reviewed journals indexed, linked, and inter-operable with GeoRef debuted in February 2005 [www.geoscienceworld.org](http://www.geoscienceworld.org)
- Governor's Office of Planning and Research, 2004, CEQA, California Environmental Quality Act Statutes and Guidelines: OPR, 1400 Tenth Street, Sacramento, CA 95814, ☎ 916-322-4245 < [www.opr.gov](http://www.opr.gov) > PRC §§15000 — 15387
- Hart, Earl W., and Bryant, William A., 1997, Fault-rupture hazard zones in California: California Geological Survey, Special Publication 42, 1997 edition with 1999 supplements, 38 p. *The active San Jacinto Fault has been legally zoned under the Alquist-Priolo Earthquake Fault Zoning Act. SP-42 is the definitive official CGS publication to cite. Do not confuse this with the Seismic Hazards Zoning Act (landslides and liquefaction).*
- Jones, Lucile M., 2004, Putting down roots in earthquake country, second edition: Southern California Earthquake Center, 30 p. (*An excellent color booklet for the public in earthquake safety written by a USGS seismologist. Available from SCEC at 213-740-5843 or visit homepage at* [www.scec.org](http://www.scec.org))
- Martin, G.R., and Lew, M., editors, 1999, Recommended procedures for implementation of CDMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California: Southern California Earthquake Center, 63 pages, ☎ 213-740-5843 or homepages: [www.scec.org](http://www.scec.org) or [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)
- Real, Charles R., 1998, Reducing future earthquake losses in California – action begins with knowing where the problems are: *California Geology*, vol. 51, no. 2, March/April 1998 issue, p. 10–14. (*explains the Seismic Hazards Mapping Act of 1990*)
- Real, Charles R., 2002, California's Seismic Hazards Mapping Act – geoscience and public policy, in Bobrowsky, Peter T., editor, *Geoenvironmental mapping – methods, theory, and practice*: A.A. Balkema Publishers, p. 93–120.
- Smith, Theodore C., and McKamey, Bea, 2000, Summary of outreach activities for California's Seismic Hazards Mapping Program: California Geological Survey, Special Publication 121, 38 p. *Contains five appendixes of brochures, fliers, and notices that were used in the CGS outreach program of the California Geological Survey to cities.*
- Stern, Paul C., and Fineberg, H.V., editors, and 17 members of the Committee on Risk Characterization, 1996, Understanding risk – informed decisions in a democratic society: National Academy Press, 249 p. (*contains definitions of risk terminology from the authoritative National Academy of Sciences*)
- Sydnor, Robert H., 2004, Checklist for the review of engineering geology and seismology reports for California public schools, hospitals, and essential services buildings: California Geological Survey Note 48, two pages, dated January 1, 2004. *Available on-line at:* [www.conservation.ca.gov/cgs/information/publications/cgs\\_notes/](http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/)

Sydnor, Robert H., 2005, Engineering geology and seismology for public schools and hospitals in California: California Geological Survey, 303 p., 4 MB .pdf edition dated May 14, 2005. (*explains and accompanies Note 48 checklist listed below*)

★ Topozada, T.R., Borchardt, G., Hallstrom, C., Johnson, C., Per, R., and Lagario, H. 1993, Planning scenario for a major earthquake on the San Jacinto fault, Riverside and San Bernardino Counties, California: California Geological Survey, Special Publication 102, 219 p. *An essential reference for seismic safety planning in Moreno Valley.*

Yeats, Robert S., 2001, Living with earthquakes in California: Oregon State University Press, 406 p. *Recommended for citizens of Moreno Valley for background information in seismic safety.*

Yeats, Robert S., and Gath, Eldon M., 2004, The role of geology in seismic hazard mitigation, chapter 3, in Bozorgnia, Y., and Bertero, V.V., editors, Earthquake Engineering: CRC Press, a division of Taylor & Francis Publishers, 952 p.  
< www.crcpress.com >

Freeman, T.J., Driscoll, R.M.C., and Littlejohn, G.S., 2003, Has your house got cracks? – a homeowner’s guide to subsidence and heave damage, 2<sup>nd</sup> edition: American Society of Civil Engineers & Thomas Telford, Ltd., 128 p. www.asce.org *This is written as a practical guide for homeowners, but may also be a collateral reference for schools and hospitals — for communicating to the superintendent or owner regarding expansive soils and subsidence.*

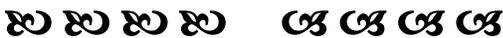
Handy, Richard L., 1995, The day the house fell — homeowner soil problems from landslides to expansive clays and wet basements: American Society of Civil Engineers, ASCE Press, 230 p.

★ Jones, Lucile M., 2004, Putting down roots in earthquake country, second edition: Southern California Earthquake Center, 30 p. (*An excellent color booklet for the public in earthquake safety written by a USGS seismologist. Available from SCEC at 213-740-5843 or visit homepage at www.scec.org*)

Nelson, John D., and Miller, Deborah J., 1997, Expansive soils, 2<sup>nd</sup> edition: problems and practice in foundation engineering and pavement engineering: John Wiley & Sons, Inc., 288 p.

St. John, D.A., Poole, A.B., and Sims, I., 1998, Concrete petrography: a handbook of investigative techniques: John Wiley & Sons, Inc., 474 p.

Yeats, Robert S., 2001, Living with earthquakes in California: Oregon State University Press, 406 p. *Recommended for citizens of Moreno Valley for background information in seismic safety*



**Homeowner Information**

*regarding Seismic Safety & Foundation Problems for Residents of the City of Moreno Valley*

Audel, Harry S., 2004, Field guide to crack patterns in buildings — a guide to residential building cracks caused by geologic hazards: Association of Engineering Geologists, Special Publication 16.

Boone, S.J., 1996, Ground-movement-related building damage: *Journal of Geotechnical Engineering*, American Society of Civil Engineers, vol. 122, no. 11, November 1996, p. 886-896 and vol. 124, p. 462-465.

California Seismic Safety Commission, 2002, The homeowner’s guide to earthquake safety: SSC Publication 2002-01, 30 p. CSSC, 1755 Creekside Oaks Drive, Suite 100, Sacramento, CA 95833, ☎ 916-263-5505. *download from www.seismic.ca.gov This practical and useful booklet is highly recommended for residents of Moreno Valley.*



**Seismology & Earthquake Engineering**

Bent, Alison L., and Helmberger, Donald V., 1991, A re-examination of historic earthquakes in the San Jacinto Fault zone, California: *Bulletin of the Seismological Society of America*, vol. 81, no. 6, p. 2289 — 2309.

Bolt, Bruce A., 1999, Earthquakes, 4<sup>th</sup> edition: W.H. Freeman & Company, New York, 366 pages.

Bolt, Bruce A., 2001, The nature of earthquake ground motion, in Naeim, F., editor, The seismic design handbook, 2<sup>nd</sup> edition: Kluwer Academic Publishers, p. 1–45.

- Bolt, Bruce A., and Abrahamson, Norman A., 2003, Estimation of strong seismic ground motions, Chapter 59 in Lee, William H.K., Kanamori, Hiroo, Jennings, Paul C., and Kisslinger, Carl, *editors*, International handbook of earthquake and engineering seismology: Academic Press, a division of Elsevier: vol. 81–B, June 2003, p. 983–1001.
- California Geological Survey, 1998, Maps of known active fault near-source zones in California and adjacent portions of Nevada: International Conference of Building Officials, Whittier, California, 11 × 17 atlas format.
- California Geological Survey, 1999, *Recommended criteria for delineating Seismic Hazards Zones in California*: California Geological Survey, Special Publication 118, 12 p.
- Campbell, Kenneth W., 1983, Bayesian analysis of extreme earthquake occurrences, Part II, Application to the San Jacinto Fault zone of southern California: *Bulletin of the Seismological Society of America*, vol. 73, no. 4, p. 1099–1115.
- Cao, Tianqing, Bryant, William A., Rowshandel, B., Branum, David, and Wills, Christopher J., 2003, The revised 2002 California probabilistic seismic hazards maps: California Geological Survey, posted as .pdf on CGS website, June 2003: [www.conservation.ca.gov/cgs/rghm/psha](http://www.conservation.ca.gov/cgs/rghm/psha)
- ◆ Report, 11 p., with Appendix A (Type A, B, C faults):
  - ◆ Table of Type A Faults, 2 p.
  - ◆ Table of Type B Faults, 15 p.
  - ◆ Table of Type C Faults (= area sources), 1 p.
  - ◆ References for 2002 California Fault Parameters, 9 p.
- This is the new 2002 statewide seismotectonic model used in probabilistic seismic hazard analysis by the California Geological Survey. CCR Title 24 projects (hospitals and schools) will be measured and evaluated against this PSHA model and its fault data—base that reflects a broad consensus of the seismology and engineering geology profession. This report updates and supersedes Petersen and others, CGS Open-File Report 96–08, which was the 1996 statewide consensus model. CGS OFR 96–08 contains 33 pages of text that remains as a pertinent explanation of PSHA methodology for California. The notable upgrade from 1996 to 2002 is the revised database of seismogenic faults (particularly slip-rates, Mmax, recurrence intervals, and fault segmentation).*
- Doser, Diane I., 1992, Historic earthquakes (1918 to 1923) and an assessment of source parameters along the San Jacinto Fault system: *Bulletin of the Seismological Society of America*, vol. 82, no. 4, p. 1786 — 1801.
- Frankel, Arthur D., 1999, How does the ground shake? — perspectives in earthquake ground motion: *Science*, v. 283, p. 2032–2033, March 26, 1999 issue. *An excellent concise paper by a USGS seismologist on the nature of earthquake ground-motion.*
- Hamburger, Ronald O., 2003, Building code provisions for seismic resistance, in Chen, W.F., and Scawthorn, C., *editors*, Earthquake Engineering Handbook: CRC Press, a division of Taylor & Francis Publishers, chap. 11, p. 11–1 to 11–28.
- ★Jordan, Thomas H., *chairman*, Beroza, Gregory, Cornell, C. Allin, Crouse, C.B., Dieterich, James, Frankel, Arthur, Jackson, David D., Johnston, A., Kanamori, H., Langer, James, McNutt, Marcia, Rice, James R., Romanowicz, Barbara A., Sieh, Kerry E., and Somerville, Paul G., 2003, Living on an active Earth: perspectives on earthquake science: National Academy of Sciences, National Academy Press, 418 p. *This is an authoritative and comprehensive treatise in seismology by a blue-ribbon panel of seismologists, including Professor Kerry E. Sieh of Caltech, who is an alumnus of the University of California, Riverside.*
- McGuire, Robin K., 2004, Seismic hazard and risk analysis: Earthquake Engineering Research Institute, EERI Monograph No. 10, 240 p. *This monograph explains probabilistic seismic hazard analysis and strong-motion seismology.* [www.eeri.org](http://www.eeri.org)
- Milsom, John, 2003, Field geophysics, 3<sup>rd</sup> edition: John Wiley & Sons, 244 p.
- Mori, James J., 1993, Fault plane determinations for three small earthquakes along the San Jacinto Fault, California; search for cross faults: *AGU Journal of Geophysical Research*, vol. 98, no. 10, p. 17,711 — 17,722.
- Petersen, Mark D., Beeby, D.J., Bryant, W.A., Cao, C., Cramer, C.H., Davis, J.F., Reichle, M., Saucedo, G., Tan, S., Taylor, G., Topozada, T., Treiman, J., and Wills, C.J., 1999, Seismic shaking hazard maps of California: California Geological Survey, Map Sheet 48, published July 1, 1999, approximate scale = 1:2,127,600 [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)
- Reiter, Leon, 1990, Earthquake hazard analysis: Columbia University Press, 254 pages.
- Sieh, Kerry E., 1996, The repetition of large-earthquake ruptures, in Knopoff, L., Aki, K., Allen, C.R., Rice, J.R., and Sykes, L.R., *convenors*, Earthquake Prediction — the scientific challenge: *Proceedings of the National Academy of Sciences*, v. 93, p. 3764–3771, April 1996.

- Somerville, Paul G., and Moriwaki, Yoshiharu, 2003, Seismic hazards and risk assessment in engineering practice, Chapter 65 in Lee, William H.K., Kanamori, Hiroo, Jennings, Paul C., and Kisslinger, Carl, *editors*, International handbook of earthquake and engineering seismology: Academic Press, a division of Elsevier: vol. 81–B, June 2003, p. 1065–1095.
- Stewart, Jonathan P., Chiou, S.J., Bray, Jonathan D., Graves, Robert W., Somerville, Paul G., and Abrahamson, Norman A., 2001, Ground motion evaluation procedures for performance-based design: University of California, Berkeley; Pacific Earthquake Engineering Research Center, Report PEER 2001–09, 8 chapters, 229 p. *To be published in International Journal of Soil Dynamics and Earthquake Engineering in 2005. A significant new monograph in applied seismology funded by NSF written by an interdisciplinary California team of 4 seismologists and 3 geotechnical engineers.*  
Download pdf from: < <http://peer.berkeley.edu> >
- ★ Toppozada, T.R., Borchardt, G., Hallstrom, C., Johnson, C., Per, R., and Lagario, H. 1993, Planning scenario for a major earthquake on the San Jacinto fault, Riverside and San Bernardino Counties, California: California Geological Survey, Special Publication 102, 219 p. *An essential reference for seismic safety planning in Moreno Valley.*
- Wald, David J., Quitoriano, V., Heaton, Thomas H., and Kanamori, H., 1999, Relationships between peak ground acceleration, peak ground velocity, and Modified Mercalli Intensity in California: EERI *Earthquake Spectra*, v. 15, no. 3, pages 557–564.
- Wallace, Robert E., *editor*, 1990, The San Andreas Fault System, California: U.S. Geological Survey Prof. Paper 1515, 283 pages.
- Weldon, Ray J., Fumal, Thomas E., Biasi, Glenn P., and Scharer, Katherine M., 2005, Past and future earthquakes on the San Andreas Fault: *AAAS Science*, vol. 308, issue #5724, 13 May 2005, p. 966–967.
- Wills, Christopher J., and Silva, Walter, 1998, Shear-wave velocity characteristics of geologic units in California: EERI *Earthquake Spectra*, v. 14, no. 3, August 1998, p. 533–556.
- Yeats, Robert S., 2001, Living with earthquakes in California: Oregon State University Press, 406 p. *Recommended for citizens of Moreno Valley for background information in seismic safety.*
- Yeats, Robert S., and Gath, Eldon M., 2004, The role of geology in seismic hazard mitigation, chapter 3, in Bozorgnia, Y., and Bertero, V.V., *editors*, Earthquake Engineering: CRC Press, a division of Taylor & Francis Publishers, 952 p.  
< [www.crcpress.com](http://www.crcpress.com) >

- Yeats, Robert S., Sieh, Kerry E., and Allen, Clarence R., 1997, The geology of earthquakes: Oxford University Press, 568 p. (especially Chapter 13, *Seismic Hazard Assessment*, p. 447–472).



## Geotechnical Engineering & ASTM tests for earthwork

- ASTM, 2002, *Standards on environmental site characterization, 2<sup>nd</sup> edition*: American Society for Testing and Materials, 1,827 p., 163 tests methods, practices, guides; available in book format (paper copy, 8½×11 size) or CD-ROM.  
< [www.astm.org](http://www.astm.org) >
- ASTM, 2004, ASTM Standards in Building Codes, 41<sup>st</sup> edition: American Society for Testing & Materials, International, 4 volume set on one CD-ROM with 1,350 standards that are searchable  
< [www.astm.org](http://www.astm.org) >
- ASTM, 2004, ASTM Standards on soil and rock: Geosynthetics: American Society for Testing & Materials, 508 p. This ASTM volume 4.13, published May 2004, contains 100 standards in geosynthetics formerly printed in vol. 4.09, Soil & Rock II. [www.astm.org](http://www.astm.org)
- ★ California Department of Water Resources, 2003, Guidebook for implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land-use planning: CDWR, 130 p. [www.owue.water.ca.gov](http://www.owue.water.ca.gov)
- Coduto, Donald P., 1999, Geotechnical engineering – principles and practice: Prentice–Hall Publishers, 759 p. *Widely used college textbook in geotechnical engineering.*
- Coduto, Donald P., 2001, Foundation design – principles and practices, 2<sup>nd</sup> edition: Prentice–Hall Publishers, 883 p.
- Gray, Donald H., and Sotir, Robbin B., 1996, Biotechnical and soil bioengineering slope stabilization — a practical guide for erosion control: John Wiley & Sons, Inc., 378 p. *Dr. Gray is professor of geotechnical engineering at the University of Michigan and a pioneer in the use of plants and geosynthetics for erosion control and surficial slope stability. This excellent textbook presents ecologically sound alternatives to conventional reinforced concrete retaining walls.*
- Kramer, Steven L., 1996, Geotechnical earthquake engineering: Prentice–Hall Publishers, 653 p.

- Kramer, Steven L., and Stewart, Jonathan P., 2004, Geotechnical aspects of seismic hazards, chapter 4, in Bozorgnia, Y., and Bertero, V.V., editors, Earthquake Engineering: CRC Press, a division of Taylor & Francis Publishers, 952 p.  
< www.crcpress.com >
- Martin, G.R., and Lew, M., editors, 1999, Recommended procedures for implementation of CDMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California: Southern California Earthquake Center, 63 pages, ☎ 213-740-5843 or homepages: www.scec.org or www.conservation.ca.gov/cgs
- Milsom, John, 2003, Field geophysics, 3<sup>rd</sup> edition: John Wiley & Sons, 244 p.
- Mitchell, James K., and Soga, K., 2005, Fundamentals of soil behavior, 3<sup>rd</sup> edition: John Wiley & Sons, Inc., 608 p.
- Nelson, John D., and Miller, Deborah J., 1997, Expansive soils, 2<sup>nd</sup> edition: problems and practice in foundation engineering and pavement engineering: John Wiley & Sons, Inc., 288 p.
- Oriard, Lewis L., 2002, Explosives engineering, construction vibrations, and geotechnology: International Society of Explosives Engineers, 680 p. hardcover, \$88.00 www.isee.org  
*Lewis Oriard, engineering geologist, is based in Orange County, California. He has over 40 years of experience in engineering geophysics with emphasis on minimizing effects of blasting of basement excavations on adjacent existing structures. Some excavations in granitic rock in the Lakeview Mountains for structural foundations may need specialized blasting techniques outlined in this textbook.*
- Seed, Raymond B., Cetin, K.O., Moss, Robb E.S., Kammerer, Ann Marie, Wu, J., Pestana, J.M., Riemer, M.F., Sancio, R.B., Bray, Jonathan D., Kayen, Robert E., and Faris, A., 2003, Recent advances in soil liquefaction engineering — a unified and consistent framework: University of California, Earthquake Engineering Research Center Report 2003–06, 71 p. *Liquefaction analysis within the City of Moreno Valley should be performed in accordance with this milestone paper that was presented to hundreds of geotechnical engineers at the ASCE conference held on The Queen Mary.*  
*Download 10MB file from:*  
[http://www.ce.berkeley.edu/~kammerer/files/seed\\_et\\_al\\_2003.pdf](http://www.ce.berkeley.edu/~kammerer/files/seed_et_al_2003.pdf)
- Shanklin, D.W., Rademacher, K.R., and Talbot, J.R., editors, 2000, Construction and controlling compaction of earth fills, ASTM Special Technical Publication STP–1384, 336 p. www.astm.org
- Shlemon, Roy J., 1985, Application of soil–stratigraphic techniques to engineering geology: *Bulletin of the Association of Engineering Geologists*, vol. 22, no 2, p. 129–142.



## Lifelines that may be ruptured by the active San Jacinto Fault in eastern Moreno Valley

Natural Gas Transmission — Colorado Aqueduct — Highway 60  
Water Mains — Electric Power Pylons — Telecommunications  
Fiber Optics Cable — Sewage

*The City of Moreno Valley is unusually vulnerable to explosions, fires, and loss of lifelines because a large number of lifelines cross the active San Jacinto Fault on the eastern side of Moreno Valley. New housing tracts and developments on the eastern and northeastern side of Moreno Valley need safe and reliable lifelines that have shut-off valves and minimize the number of active fault crossings. Proper greenbelts for utility corridors, automatic shut-off valves, and structural set-backs of homes from the location of likely fault rupture are recommended. These references will assist with seismic safety planning by the City of Moreno Valley.*

- API, 1997, Effects of smooth and rock dents on liquid petroleum pipelines, Phase I and Phase II: API Publication 1156 and 1156-A, 242 pages, American Petroleum Institute, 1220 L St., N.W., Washington, D.C., 20005-4070 www.api.org
- API, 1993, Steel pipeline crossing railroads and highways, 6<sup>th</sup> edition, April 1993: API Research Publication 1102, 39 pages, \$63.00, American Petroleum Institute, 1220 L St., N.W., Washington, D.C., 20005-4070 www.api.org
- API, 1997, Pressure testing of liquid petroleum pipelines, 4<sup>th</sup> edition, March 1997: API Research Publication 1110, 13 pages, \$37.00, American Petroleum Institute, 1220 L St., N.W., Washington, D.C., 20005-4070 www.api.org
- API, 1996, Assurance of hazardous liquid pipeline system integrity, 1<sup>st</sup> edition, August 1996: API Research Publication 1129, 54 pages, \$95.00, American Petroleum Institute, 1220 L St., N.W., Washington, D.C., 20005-4070 www.api.org
- API, 1995, Risk management within the liquid pipeline industry: a report from the Joint Government/Industry Risk Assessment Quality Team, final report, June 1995: API Report D90600, 87 pages, \$5.00, American Petroleum Institute, 1220 L St., N.W., Washington, D.C., 20005-4070 www.api.org *A cooperative joint venture between the Office of Pipeline Safety of the U.S. Department of Transportation and API's General Committee on Pipelines.*
- API, 1996, Development of public awareness programs by hazardous liquid pipeline operators: API Research Report 1123, 2<sup>nd</sup> edition, August 1996, 9 pages, \$37.00, American Petroleum Institute, 1220 L Street, NW, Washington, D.C., 20005-0470, phone 202-682-8000

- www.api.org
- Ariman, T., and B.J. Lee, 1991, Tension/bending behavior of buried pipelines under large ground deformations in active faults, *in* Cassaro, M.A., *editor*, 1991, *Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4*, pages 226-233.
- ASCE, 1999, Earthquake-actuated automatic gas shutoff devices: American Society of Civil Engineers, ASCE Standard No. ASCE 25-97, 11 pages, \$24.00.
- ASCE, 1998, Pipeline route selection for rural and cross-country pipelines: American Society of Civil Engineers, ASCE Manuals and Reports on Engineering Practice No. 46, 95 pages, \$49.00.
- ASCE, 1996, Pipeline crossings: *ASCE Manuals and Reports on Engineering Practice No. 89*, American Society of Civil Engineers, 140 pages, \$39.00.  
www.asce.org
- ASCE, 1983, Seismic response of buried pipes and structural components: American Society of Civil Engineers, 56 pages, \$14.00. www.asce.org
- ASCE, 1984, Guidelines for the seismic design of oil and gas pipeline systems: American Society of Civil Engineers, Reston, Virginia. www.asce.org
- ATC, 1991, Seismic vulnerability and impact of disruption of lifelines in the conterminous United States: Applied Technology Council, Redwood City, California, Report ATC-25, 440 pages, \$60.00;  
www.atcouncil.org
- California Joint Legislative Staff, 1998, Aging Pipelines – California’s Forgotten Infrastructure: California Legislature, Task Force on Government Oversight, prepared for Assemblyman Ted Lempert, 13 p.
- Cassaro, Michael A., *editor*, 1991, *Lifeline earthquake engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4*, 1,189 pages. www.asce.org
- Castronovo, Joseph P., and James A. Clark, *editors*, 1998, *Pipelines in the constructed environment: American Society of Civil Engineers*, 810 pages, \$89.00.
- Catalano, Lawrence F., *editor*, 1996, *Pipeline crossings 1996: American Society of Civil Engineers*, 510 pages, \$54.00.
- ★ Clark, J.A., C.H. Lee, and Woodrow U. Savage, 1991, Seismic/geologic risks as factors in prioritizing gas pipeline system replacement, *in* Cassaro, Michael A., *editor*, 1991, *Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4*, p. 206-215.
- ★ CSFM-PSE, 1993, *Hazardous Liquid Pipeline Risk Assessment: California Department of Forestry & Fire Protection, Office of the California State Fire Marshal, Pipeline Safety & Enforcement*, 1131 S Street, Sacramento, CA 94244-2460, ☎ 916-445-8477; Southern Calif. Field Office ☎ 818-337-9999.
- Doeing, Brian J., Williams, David T., and Bradley, Jeffrey B., 1997, Gas pipeline erosion failures: January 1993 floods, Gila River Basin, Arizona, *in* Larson, R.A., and Slosson, J.E., *editors*, *Storm-Induced Geologic Hazards – case histories from the 1992-1993 winter in southern California and Arizona: Geological Society of America, Reviews in Engineering Geology*, vol. 11, p. 25-38.
- FEMA & ASCE, 2001, Seismic fragility formulations for water systems: American Lifelines Alliance, a joint FEMA and ASCE organization; part 1, Guidelines, 96 p.; part 2, Appendices, 101 p. download from: < www.americallifelinesalliance.org >
- FEMA, 1987, Abatement of seismic hazards to lifelines: proceedings of a workshop on development of an action plan, volume 5, papers on gas and liquid fuel lifelines and special workshop presentations: Federal Emergency Management Agency: FEMA Report 139, July 1987, 134 pages, available free from FEMA at (800) 480-2520 or e-mail to: www.fema.gov
- FEMA, 1992, Earthquake resistant construction of gas and liquid fuel pipeline systems serving, or regulated by, the federal government: Federal Emergency Management Agency: numbered as both FEMA Report 233 and NISTIR Report 4795, July 1992, 68 pages, available free from FEMA at (800) 480-2520 or e-mail to: www.fema.gov
- Goetz, Christopher, Brainard, Ray, Carlson, Jill, Cato, Kerry, Holst, Norman, Johnson, Dan, Riley, Don, and Siem, Martin, 1999, Geology of the Eastside Reservoir Project, Riverside County, California, *in* Cranham, Greg T., *editor*, *Water for Southern California – water resources development at the close of the century: San Diego Association of Geologists*, p. 41-56.
- ★ Keaton, Jeffrey R., R.M. Robison, G.H. Beckwith, and D.B. Slemmons, 1991, Philosophy of treatment of high-pressure natural gas pipelines at active fault crossings, *in* Cassaro, Michael A., *editor*, 1991, *Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4*, pages 898-906.  
www.asce.org
- Lindell, Michael K., and Perry, Ronald W., 1998, Earthquake impacts and hazard adjustment by acutely hazardous materials facilities following the Northridge Earthquake: *EERI Earthquake Spectra*, v. 14, no. 2, p. 285-299.
- ★ McDonough, Peter W., *editor*, 1995, *Seismic design guide for natural gas distributors: ASCE Technical Council on Lifeline Earthquake Engineering, Monograph No. 9*, 96 pages, \$26.00. www.asce.org
- Ogawa, Y., and Koike, T., 2001, Structural design of buried pipelines for severe earthquakes: *Soil Dynamics & Earthquake Engineering*, vol. 21, p. 199-209.

★ O'Rourke, Michael J., and X. Liu, 1999, Response of Buried Pipelines Subject to Earthquake Effects: Multidisciplinary Center for Earthquake Engineering Research, SUNY Buffalo, New York; MCEER Monograph #3, 249 pages, \$25.00  
<http://mceer.eng.buffalo.edu>

O'Rourke, Michael J., *editor*, 1995, Lifeline Earthquake Engineering: American Society of Civil Engineers, Proceedings of the Fourth U.S. Conference, San Francisco, August 1995, 813 pages, \$78.00  
[www.asce.org](http://www.asce.org)

O'Rourke, Thomas D., and William J. Hall, 1991, Seismic behavior and vulnerability of pipelines, *in* Cassaro, M.A., *editor*, 1991, Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4, p. 761-773 [www.asce.org](http://www.asce.org)

Perlmulder, S.D., and Ronald T. Eguchi, 1991, Regional risk assessment of environment contamination from oil pipelines, *in* Cassaro, M. A., *editor*, 1991, Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering, Monograph No. 4, p. 216-225  
[www.asce.org](http://www.asce.org)

Proctor, Richard James, Geologic features of a section across the Casa Loma Fault (a branch of the San Jacinto Fault), exposed in an aqueduct trench near San Jacinto, California: *Bulletin of the Geological Society of America*, vol. 73, no. 10, p. 1293-1295.

Seligson, Hope A., Eguchi, Ronald T., and Tierney, Kathleen J., 1991, A methodology for assessing the risk of hazardous materials release following earthquakes — a demonstration study for the Los Angeles area, *in* Cassaro, Michael A., *editor*, 1991, Lifeline Earthquake Engineering: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Monograph No. 4, p. 805-816.  
[www.asce.org](http://www.asce.org)

★ Schiff, Ansel J., *editor*, 1995, Northridge Earthquake: lifeline performance and post-earthquake response: ASCE Technical Council on Lifeline Earthquake Engineering, Monograph No. 8, 340 p., \$39.00.  
[www.asce.org](http://www.asce.org)

★ Taylor, Craig, and VanMarcke, Erik, *editors*, Acceptable risk processes: lifelines and natural hazards: American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering, Monograph 21, 248 p.

TRB, 1988, Pipelines and public safety: Transportation Research Board, National Research Council, TRB Special Report 219.

URS, 2002, Proposed Standard Protocol for Pipeline Risk Analysis: unpublished consulting report (*working draft* dated May 13, 2002) for California Department of Education, School Facilities Planning Division, Sacramento, 6 chapters, appendix A to F.

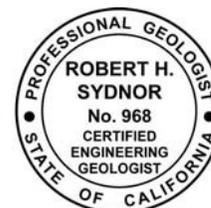
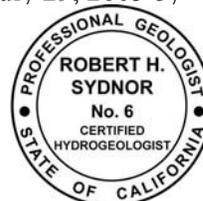
★ Watkins, R.K., and Anderson, Loren R., 2000, Structural Mechanics of Buried Pipes: CRC Press, 464 p.

Wells, Donald L., and Coppersmith, Kevin J., 1994, New empirical relationships among magnitude, rupture length, rupture width, rupture area, and surface displacement: *Bulletin of the Seismological Society of America*, vol. 84, no. 4, August 1994, pages 974-1002.  
[www.seismosoc.org](http://www.seismosoc.org)  
*This paper is used to calculate fault displacement for the natural gas pipeline for the maximum moment magnitude,  $M_{max}$ , of a particular active fault.*

Youd, T.Leslie., Hansen, Corbett M., and Bartlett, Steven F., 2002, Revised multilinear regression equations for prediction of lateral spread displacement: *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, vol. 128, no. 12, December 2002 issue, p. 1007-1017.  
*This paper contains the current formulas used to evaluate lateral spreading during liquefaction with application to displacement of natural gas pipelines.*



Compilation on July 29, 2005 by



Robert H. Sydnor  
 PG 3267, CHG 6, CPG 4496, CEG 968  
 LM-AEG, LM-SSA, LM-AGU, LM-AAAS, LM-AGI, LM-CAS  
 M-GSA, M-ASCE, M-ASTM, M-EERI, M-AIPG, M-NGWA  
*Senior Engineering Geologist*

**California Geological Survey**  
 801 K Street, MS 12-32  
 Sacramento, CA 95814-3531

Robert.Sydnor @ conservation.ca.gov  
 916-323-4399  
 homepage: [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)

# Relationships Between Peak Ground Acceleration, Peak Ground Velocity, and Instrumental Intensity

## for the City of Moreno Valley, Riverside County

*a summary table prepared July 27, 2005 by the California Geological Survey  
for the seismic safety portion of the Safety Element within the General Plan of Moreno Valley*

adapted from a seismology publication by USGS and Caltech seismologists David J. Wald, V. Quintoriano, Thomas H. Heaton, & H. Kanamori published in EERI *Earthquake Spectra*, vol. 15, no. 3, Aug. 1999, p. 557-564; Earthquake Engineering Research Institute < [www.eeri.org](http://www.eeri.org) >

Perceived Shaking	Not Felt	Weak	Light	Moderate	Strong	Very Strong	Severe	<b>Violent</b>	Extreme
Damage Potential	None	None	None	Very Light	Light	Moderate	Moderate to Heavy	<b>Heavy</b>	Very Heavy
Peak Acceleration ( g = gravity )	<0.0017g	0.0017g – 0.014g	0.014g – 0.039g	0.039g – 0.092g	0.092g – 0.18g	0.18g – 0.34g	0.34g – 0.65g	<b>0.65g – 1.24g</b>	> 1.24g
Peak Velocity ( cm/sec )	< 0.1	0.1 to 1.1	1.1 to 3.4	3.4 to 8.1	8.1 to 16	16 to 31	31 to 60	<b>60 to 116</b>	>116
Instrumental Intensity	I	II-III	IV	V	VI	VII	VIII	<b>IX Moreno Valley</b>	X

**Design-Basis Earthquake Ground Motion** for “regular” commercial and residential structures. Defined in 1997 UBC §1627 as 10 percent chance of exceedance in 50 years, with a statistical return period of 475 years.

**For Residential and Commercial Buildings** Peak Ground Acceleration, **PGA ≈ 0.86g**  
Instrumental Intensity ≈ **IX**

**Upper-Bound Earthquake Ground Motion** for public schools, hospitals, skilled nursing facilities, essential services buildings (police stations, fire stations, city hall, emergency communication centers). Defined in 2001 CBC §1631A.2.6 as 10 percent chance of exceedance in 100 years, with a statistical return period of 949 years.

**For Public Schools and Hospitals** Peak Ground Acceleration, **PGA ≈ 1.05g**  
Instrumental Intensity ≈ **IX**

Moreno Valley is located in **Seismic Zone 4** (reference : 1997 Uniform Bldg Code, Figure 16-2). Ground motion will be highest in sandy alluvium and slightly lower on hills underlain by granitic rock. The earthquake ground-motion shown is calculated alluvial subgrade at the intersection of Alessandro and Redlands Boulevards, near the center of Moreno Valley. Earthquake ground-motion will increase eastward — in the direction toward the active San Jacinto Fault.

Prepared July 27, 2005 under provisions of California Government Code § 65302(g)  
by Robert H. Sydnor, *Senior Engineering Geologist*, RG 3267, CHG 6, CEG 968, CPG 4496 Robert.Sydnor@conservation.ca.gov  
**California Geological Survey, 801 K Street, M.S. 12-32, Sacramento, CA 95814-3531**

For public information from the state’s geological survey, geologic maps, Alquist-Priolo earthquake fault zone maps, seismic hazards zone maps, landslide maps, mineral resource maps, and geologic reports, telephone **(916) 445-5716**. Please visit our homepage for geologic information, down-loadable maps, and a list of geology publications:  
**[www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs)**

# Spectra Values of Earthquake Ground Motion City of Moreno Valley

## Riverside County

33.9175° North Latitude,    -117.1566° West Longitude  
taken at the corner of Alessandro & Redlands Boulevards

Sunnymead 7½-minute USGS Quadrangle

$\zeta = 5$  percent viscous damping

Seismic Zone 4, so coefficient  $Z = 0.4$

Geologic Subgrade from Table 16-J: Type  $S_D \approx$  alluvium

Oscillator Period <i>in seconds</i>	<b>Design-Basis Earthquake Ground Motion</b> 10% chance of exceedance in 50 years Statistical Return Period $\cong$ 475 years <i>for Residential &amp; Commercial Buildings</i>	<b>Upper-Bound Earthquake Ground Motion</b> 10% chance of exceedance in 100 years Statistical Return Period $\cong$ 949 years <i>for Hospitals and Public Schools</i>
0.10	1.68g	2.08g
0.15	1.95g	2.42g
<b>0.20</b>	<b>2.05g</b> <i>peak SA</i>	<b>2.56g</b> <i>peak SA</i>
0.30	1.86g	2.32g
0.40	1.64g	2.04g
0.50	1.41g	1.77g
0.75	1.12g	1.32g
1.00	1.05g	1.30g
1.50	0.71g	0.86g
2.00	0.55g	0.65g
<b>Peak Ground Acceleration</b>	<b>0.86g</b>	<b>1.05g</b>

Computed in July 2005 by Robert H. Sydnor, CEG 968, *Senior Engineering Geologist*

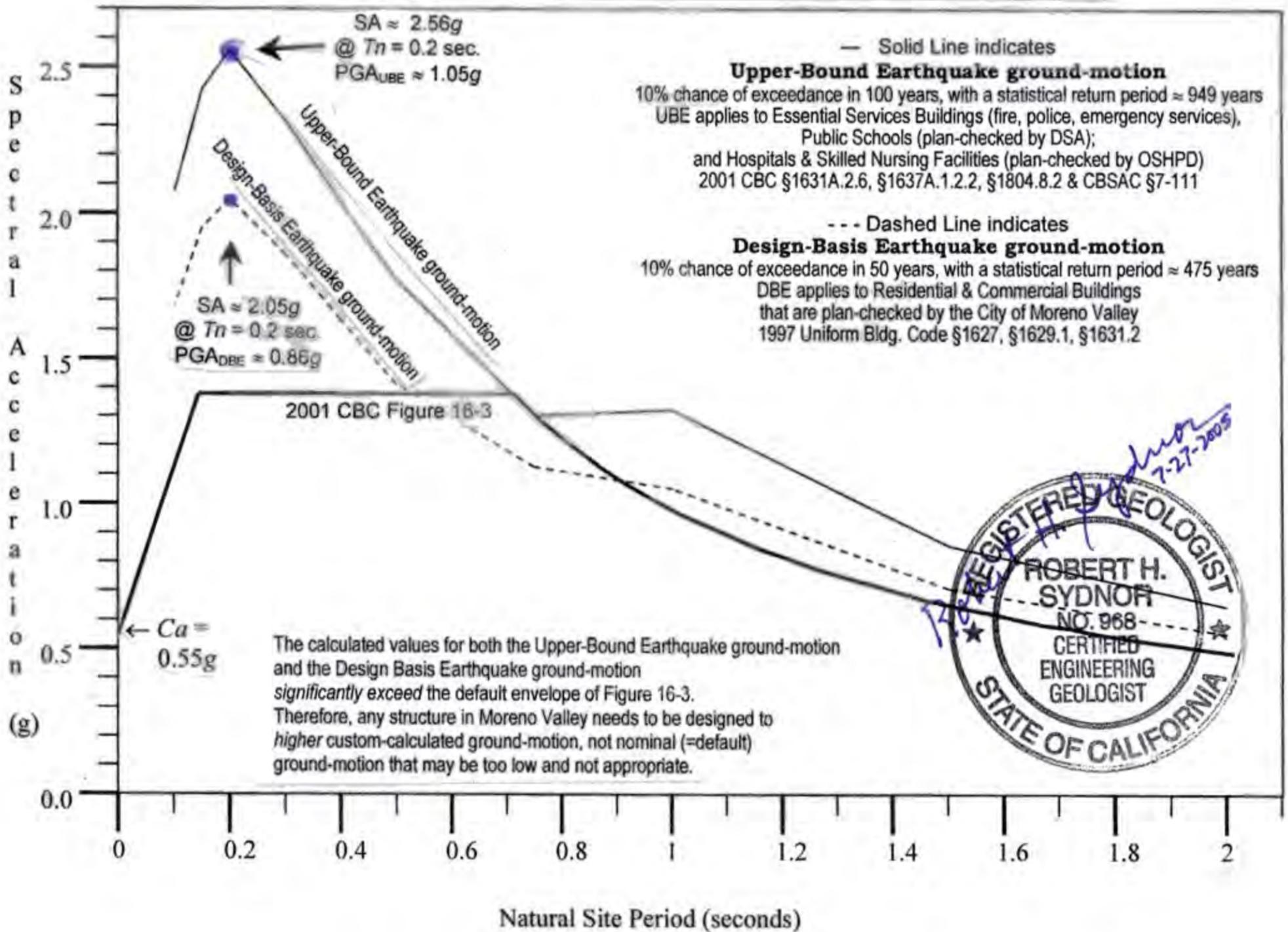
### California Geological Survey

using the CGS state-wide seismology model of 2002.

The CGS state-wide model may be downloaded at:    < [www.conservation.ca.gov/cgs](http://www.conservation.ca.gov/cgs) >

# Earthquake Ground Motion for the City of Moreno Valley July 2005 Normalized Response Spectra Seismic Zone 4

Site Coordinates: 33.9175°N Latitude and 117.1566° W Longitude  
Approximately the intersection of Alessandro Boulevard and Redlands Boulevard,  
near the center of the City of Moreno Valley.  
Coordinates are from the Sunnymead USGS 7½-minute Quadrangle, Riverside County



## Quaternary alluvium of Moreno Valley Geologic Subgrade Type S<sub>D</sub>, stiff soil

2001 CBC Site Class S<sub>D</sub> geologic subgrade is defined in Code as  
Shear-Wave Velocity,  $V_s = 180$  to 360 meters/second or 590 to 1181 feet/second for upper 30 meters.  
Reference: 2001 CBC Table 16A-J and §1636A.

Prepared July 27, 2005 in cooperation with the City of Moreno Valley  
by Robert H. Sydnor, RG 3267, CHG 6, CPG 4496, CEG 968, Senior Engineering Geologist

## California Geological Survey

www.conservation.ca.gov/cgs  
using the 2002 CGS state-wide ground-motion model  
with  $\zeta = 5$  percent viscous damping for spectral acceleration

John C. Terell, Planning Official  
City of Moreno Valley  
Community and Economic Development Department  
14177 Frederick Street  
PO Box 88005  
Moreno Valley, CA 92552  
Email: johnt@moval.org

March. 25, 2012

Re: Notice of Preparation of a Draft Environmental Impact Report – World Logistics Center Specific Plan

Dear Mr. John C. Terell:

I have been a resident of Moreno Valley since 1985 and a Geology professor at U.C. Riverside since 1984, concerned with geologic and seismic hazards in the Inland Empire. The following are my comments on the NOP for the World Logistics Center Specific Plan.

#### CEQA Requirements

Considering the regional size and scope of the proposed project, and the major impacts that it will have on the western part of the Inland Empire, a short 30-day notification and comment period on the Notice of Preparation for this project is insufficient to allow informed public review and input.

#### Geological and Seismic Hazards

Seismic, liquefaction, subsidence and flood hazards in the project area will have significant impacts and must be evaluated and mitigated in the project EIR. These evaluations must go beyond simple compilations of state Alquist-Priolo zone maps for seismic hazards and simple compilations of the FEMA flood zone maps, many of which are more than a decade out of date. More recent literature data must be incorporated.

Public health and safety, especially with regard to the planned construction of infrastructure, cannot be achieved (mitigated to a reasonable level) by hazard maps that are incomplete, inaccurate and seriously out of date. Scientific advances in our knowledge of geotechnical hazards occur quickly, and the information in the EIR must be kept up to date with such advances.

Alquist-Priolo guidelines and legislation require that plans by lead agencies include sufficient analysis based not only on the existing hazard map zones, but also on all other relevant published information on faults and hazards inside and *outside* of those map zones. This is because many recent deadly seismic events have occurred on faults that were not yet officially zoned by the state, or were not recognized to be active (Hart, 1992). The recent Landers, Northridge, Hector Mine and Napa Valley earthquakes are good examples.

Specific geologic hazards that should be evaluated and mitigated are:

- 1) seismic shaking and liquefaction/collapse potential in relation to uniform building codes.
- 2) seismic slumping and ground rupture potential caused by proximity to the active San Andreas, Casa Loma, San Jacinto, and Farm Road faults.
- 3) landslides and slow-motion creep related to active faulting along the project's boundary.

- 4) rupture-induced explosion and fire potential for two major regional natural gas pipelines that cross active faults within or adjacent to the project (see attachment from Topozada et al., 1993).
- 5) any other hazards identified by the state's existing emergency response plan for a major earthquake on the San Jacinto fault in the inland empire.
- 6) flooding, inundation, and hydrocompaction resulting from the increase in the area of Mystic Lake since 1938 and the projection of its areal extent to 2023 (see attachment from Morton et al., 2006).

The following publications address these hazards, and must be evaluated with sufficient analysis and mitigation in the project DEIR:

FEMA, 2007, HAZUS: Guide to Using HAZUS for Mitigation.  
[http://www.fema.gov/plan/prevent/hazus/dl\\_hazmit.shtm](http://www.fema.gov/plan/prevent/hazus/dl_hazmit.shtm)

FEMA, 2007, HAZUS: Flood Information Tool (FIT).  
[http://www.fema.gov/plan/prevent/hazus/hz\\_fit.shtm](http://www.fema.gov/plan/prevent/hazus/hz_fit.shtm)

Hart, E.W., 1992, Fault-rupture hazard zones in California; Calif. Div. Mines and Geol., Special Publ. 42, 32 pp.

Morton, D.M., 1977, Surface deformation in part of the San Jacinto Valley, southern California; Jour. Research U. S. Geological Survey, Vol. 5, No. 1, p. 117-124.

Morton, D.M., Matti, J.C., 1993, Extension and contraction within an evolving divergent strike-slip fault complex: the San Andreas and San Jacinto fault zones at their convergence in southern California; Memoir Geol Soc. America, 178, p. 217-230.

Morton, D.M., and Miller, F. K., 2006, Geologic map of the San Bernardino and Santa Ana 30' x 60' quadrangles, California; USGS Open File Report 1271, 2006,  
<http://pubs.usgs.gov/of/2006/1217/>

Morton, D.M. et al., 2006, Historic lake levels of Mystic Lake and a projection of where the lake level (closed depression) is predicted to be in 2023 [http://pubs.usgs.gov/of/2006/1217/of2006-1217\\_map/of2006-1217\\_fig5.pdf](http://pubs.usgs.gov/of/2006/1217/of2006-1217_map/of2006-1217_fig5.pdf)

Morton, D.M., and Sadler, P.M., 1989; Landslides flanking the northeastern Penninsular Ranges and in the San Gorgonio Pass area of southern California; in Sadler, P.M., and Morton, D.M. (Eds.) Landslides in a Semi-Arid Environment; Inland Geological Society Publ., Vol. 2, p 338-355.

Park, S.K. et al. 1995, Delineation of intrabasin structure in a dilational jog of the San Jacinto fault zone, southern California; Jour. Geophysical Research, Vol. 100, No. BA, p. 691-702.

Topozada, T.R., et al., 1993, Planning scenario for a major earthquake on the San Jacinto fault in the San Bernardino area; Calif. Dept. of Conservation, Div. of Mines and Geology, Special Publ. 102, 250 pp.

U. S. Geological Survey, 2007, USGS/CGS Probabilistic Seismic Hazards Assessment (PSHA) Model online at: <http://www.conservation.ca.gov/cgs/rghm/pshamap/pshamain.html>

Working Group on California Earthquake Probabilities (WGCEP), 2007, Uniform California Earthquake Rupture Forecasts (UCERFs); <http://www.wgcep.org/>

Thank you for considering my comments on the NOP for the World Logistics Center Specific Plan.

I ask that these comments be incorporated into the public record for review of this NOP and EIR, and hereby incorporate all references cited (and their contained references) into the review process for this EIR.

I also ask that I be kept informed in writing of all notices, documents, meetings and actions regarding this NOP, EIR and Project, at the address listed below.

Sincerely,

Michael A. McKibben, Ph.D.  
23296 Sonnet Drive  
Moreno Valley, CA 92557

(951) 924-8150  
[mamckibben@roadrunner.com](mailto:mamckibben@roadrunner.com)

M. A. McRIBBEN

SPECIAL PUBLICATION 102

**PLANNING SCENARIO  
FOR A MAJOR EARTHQUAKE  
ON THE SAN JACINTO FAULT IN THE SAN BERNARDINO AREA**

By

**CALIFORNIA DEPARTMENT OF CONSERVATION  
DIVISION OF MINES AND GEOLOGY**

Tousson R. Topozada, Glenn Borchardt, and Claudia L. Hallstrom

**CONSULTANTS**

Carl B. Johnson, Per Ron, and Henry J. Lagorio

1993

California Department of Conservation  
Division of Mines and Geology  
801 K Street, MS 12-30  
Sacramento, California 95814-3531

### Seismic Considerations

The primary impact on natural gas facilities will be the widespread damage to transmission and distribution system pipelines resulting from surface rupture along the fault zone. Displacements averaging 3 feet across the fault zone will cause numerous breaks in mains, valves, and service connections. Secondary ground failures resulting from liquefaction will result in many additional breaks in the system. Fires will occur due to broken gas mains and service connections.

The gas supply west of the fault zone will be interrupted wherever large diameter transmission pipelines are damaged by fault offset. Elsewhere, the gas transmission and distribution system is vulnerable to damage from landslides and liquefaction.

Major gas transmission lines (diameter > 16 inches) cross the fault zone at four locations, as shown on Map G:

1. Lytle Canyon (G4)
2. Lytle Canyon (G5)
3. Allesandro Boulevard (G14)
4. San Jacinto Valley (G16)

Breaks and leaks will occur in the distribution system throughout the planning area, particularly in the zone of fault rupture and in areas of liquefaction. The areas of potential liquefaction are in Cajon Canyon, along the Santa Ana River, and in San Bernardino on the northeast side of the fault.

According to SoCal Gas Company, vulnerability to damage from ground shaking has been reduced within the distribution system since the 1971 San Fernando earthquake (M6.4). This improvement is largely due to replacement of steel pipe (and, in some instances, cast iron pipe) with medium density polyethylene plastic pipe having ductile properties that resist damage from earth movements. About 90 percent of all pipe replacements of 4-inch diameter and less are made with

# EARTHQUAKE PLANNING SCENARIO

DEPARTMENT OF CONSERVATION



Division of Mines and Geology

## FOR A MAJOR EARTHQUAKE ON THE SAN JACINTO FAULT ZONE IN SOUTHERN CALIFORNIA



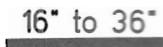
### NATURAL GAS FACILITIES

1993

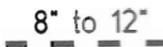
### EXPLANATION



Location of assessment (see text for details)



Major Transmission Pipeline

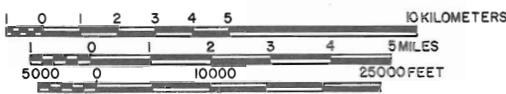


Major Distribution Trunk Line



Power Plant (capacity in megawatts, Mw)

SCALE 1:200000



Scenario Fault Segment



Planning Area

### SCENARIO MAPS AND DAMAGE ASSESSMENTS ARE INTENDED FOR EMERGENCY PLANNING PURPOSES ONLY

- THEY ARE BASED UPON THE FOLLOWING HYPOTHETICAL CHAIN OF EVENTS:
  1. A PARTICULAR EARTHQUAKE OCCURS
  2. VARIOUS LOCALITIES IN THE PLANNING AREA EXPERIENCE A SPECIFIC TYPE OF SHAKING OR GROUND FAILURE
  3. CERTAIN CRITICAL FACILITIES UNDERGO DAMAGE AND OTHERS DO NOT
- THE CONCLUSIONS REGARDING THE PERFORMANCE OF FACILITIES ARE HYPOTHETICAL AND NOT TO BE CONSTRUED AS SITE-SPECIFIC ENGINEERING EVALUATIONS. FOR THE MOST PART, DAMAGE ASSESSMENTS ARE STRONGLY INFLUENCED BY THE SEISMIC INTENSITY DISTRIBUTION MAP DEVELOPED FOR THIS PARTICULAR SCENARIO EARTHQUAKE. THERE IS DISAGREEMENT AMONG INVESTIGATORS AS TO THE MOST REALISTIC MODEL FOR PREDICTING SEISMIC INTENSITY DISTRIBUTION. NONE HAVE BEEN FULLY TESTED AND EACH WOULD YIELD A DIFFERENT EARTHQUAKE PLANNING SCENARIO. FACILITIES THAT ARE PARTICULARLY SENSITIVE TO EMERGENCY RESPONSE WILL REQUIRE A DETAILED GEOTECHNICAL STUDY.
- THE DAMAGE ASSESSMENTS ARE BASED UPON THIS SPECIFIC SCENARIO. AN EARTHQUAKE OF SIGNIFICANTLY DIFFERENT MAGNITUDE ON THIS OR ANY ONE OF MANY OTHER FAULTS IN THE PLANNING AREA WILL RESULT IN A MARKEDLY DIFFERENT PATTERN OF DAMAGE.

117°15' 33°30'

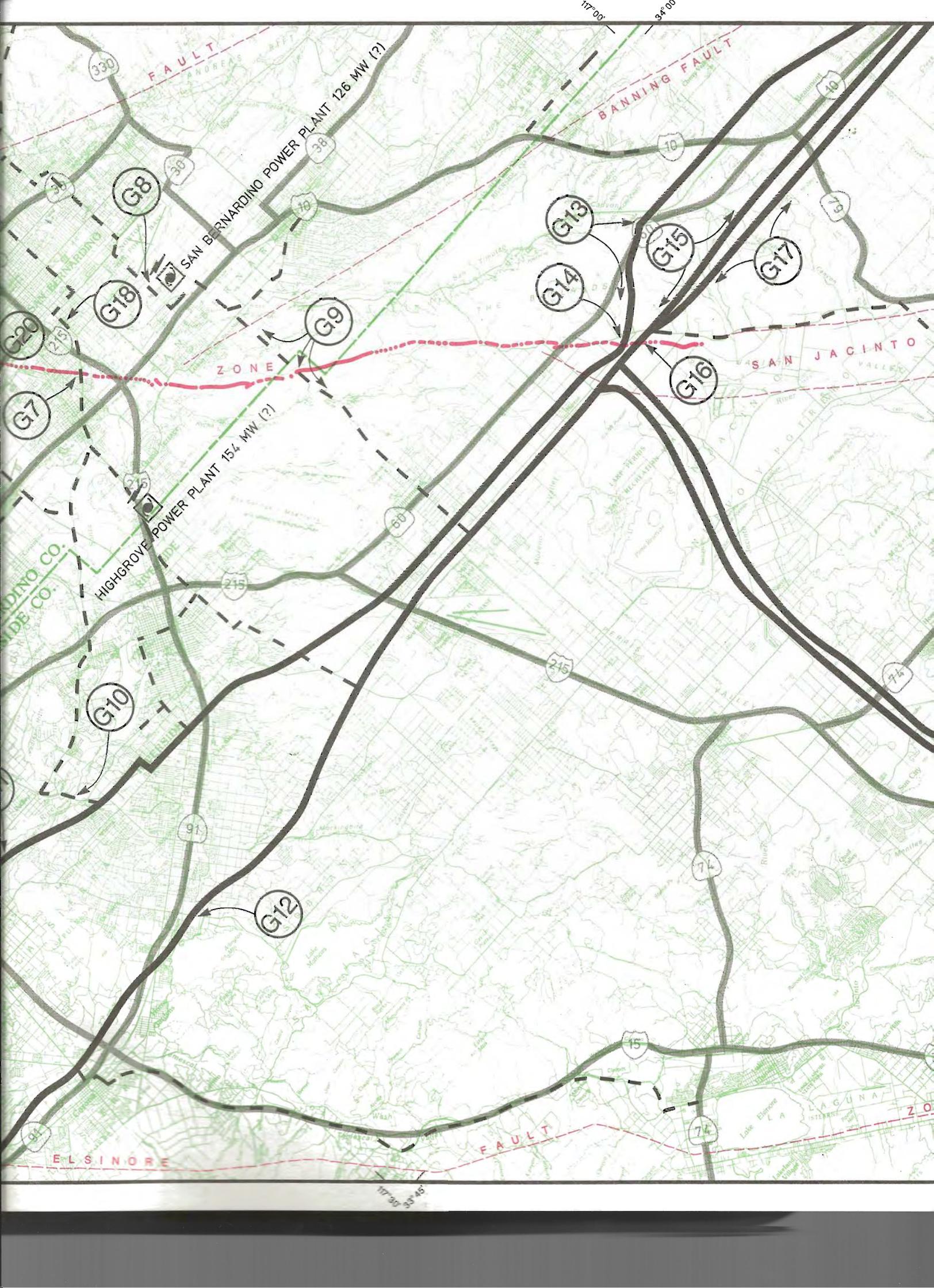
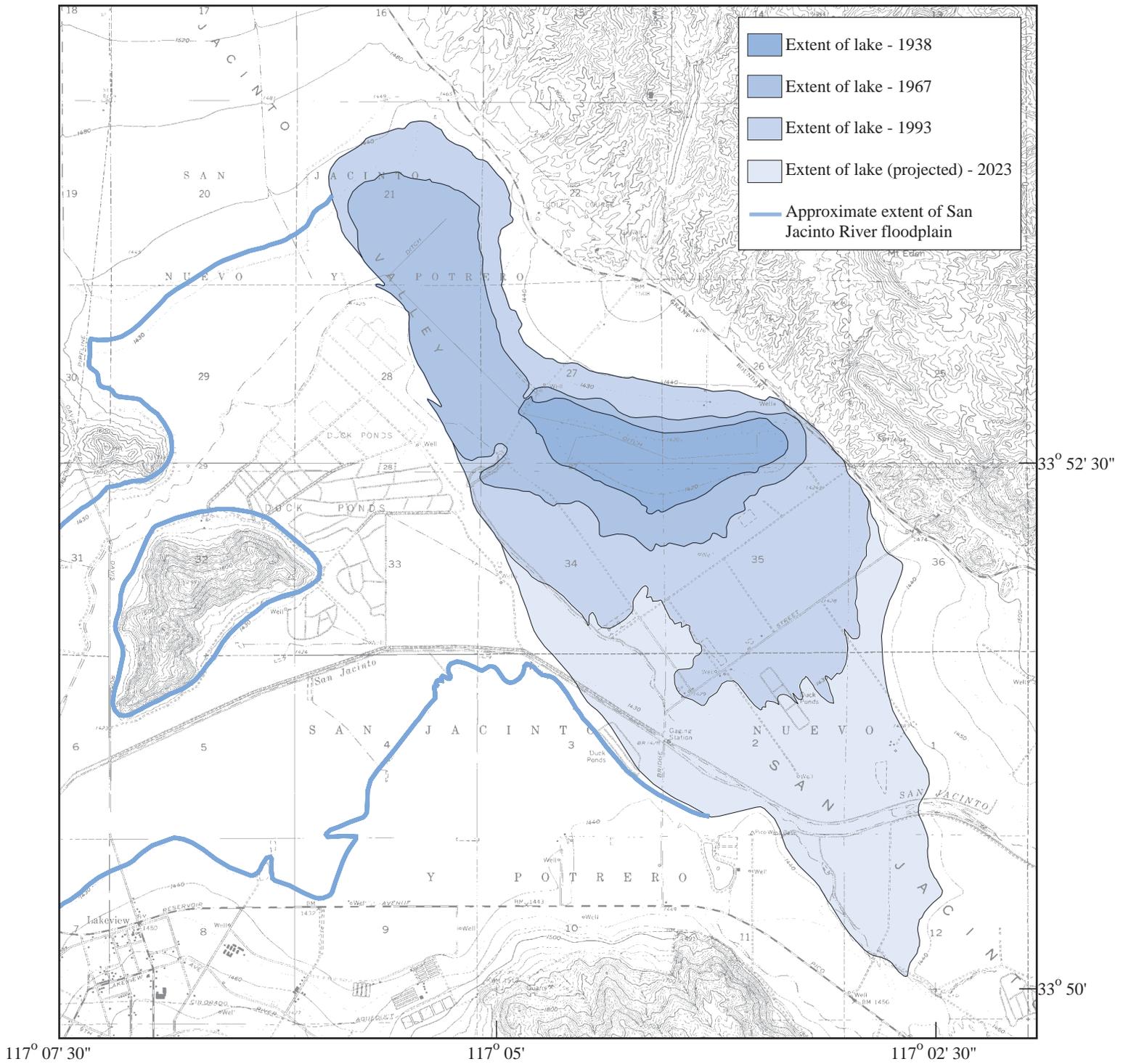
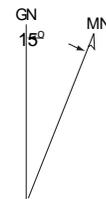
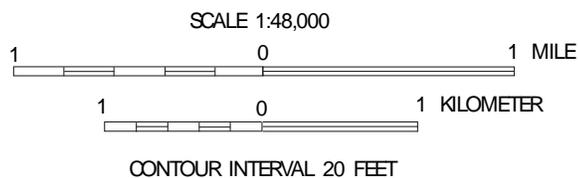


Figure 5



Base from U.S. Geological Survey  
7.5' Lakeview and El Casco quadrangles  
UTM projection, Zone 11

### Historic Lake Levels of Mystic Lake, Riverside County, California





April 9, 2020

Chris Ormsby, AICP, Senior Planner  
Community Development Department  
City of Moreno Valley  
14177 Frederick St.,  
Moreno Valley, CA 92553  
[chriso@moval.org](mailto:chriso@moval.org)

**Re: NOP Comments on MoVal 2040: Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan**

Dear Mr. Ormsby:

On behalf of Earthjustice, I submit these comments on the Notice of Preparation for the Program Environmental Impact Report for MoVal 2040: Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan. Please include me on any future notices sent out regarding this project to the following email address: [amartinez@earthjustice.org](mailto:amartinez@earthjustice.org). In addition, mail correspondence can be sent to 707 Wilshire Blvd., Suite 4300, Los Angeles, CA 90017.

Earthjustice appreciates the efforts of the City to prepare a "Climate Action Plan ... that includes a community-wide inventory of [greenhouse gas] GHG emissions and a strategy for reducing them to achieve State mandated targets." We encourage the City to deviate from the prior approach taken in the World Logistics Center Environmental Impact Report that functionally ignores the need to mitigate the GHG impacts from transportation emissions and energy use. This approach has been emphatically rejected by the California Air Resources Board – the agency responsible for implementing AB 32, California's GHG reduction law. The comment letter for that project can be found here - [https://ww2.arb.ca.gov/sites/default/files/classic//toxics/ttdceqalist/logisticsfeir.pdf?\\_ga=2.95033119.2095272129.1586469183-1950048288.1564603564](https://ww2.arb.ca.gov/sites/default/files/classic//toxics/ttdceqalist/logisticsfeir.pdf?_ga=2.95033119.2095272129.1586469183-1950048288.1564603564)

In addition, Earthjustice remains concerned about the air quality impacts of this proposed plan – especially if it heavily relies upon freight developments with inadequate mitigation measures. The City should explore a suite of requirements for zero-emissions equipment both onsite at freight facilities, in addition to requirements for zero-emission trucks to be used at any new facilities. Actions like this by local entities are the only way the region can meet federal and state air quality standards by 2040.

We appreciate your consideration of these comments, and we look forward to working with the South Coast AQMD to actually meet an ozone standard.

Sincerely,

A handwritten signature in black ink that reads "Adriano L. Martinez". The signature is written in a cursive style with a long horizontal flourish extending from the end of the name.

Adriano L. Martinez  
Earthjustice



3200 E. Guasti Road Suite 100. Ontario, CA 91761  
Phone: (909) 456-1460

Email: [jason.ackerman@ackermanlawpc.com](mailto:jason.ackerman@ackermanlawpc.com)

April 9, 2020

**VIA E-MAIL TO: CHRISO@MOVAL.ORG**

Chris Ormsby, AICP, Senior Planner  
Community Development Department,  
City of Moreno Valley  
14177 Fredrick Street  
Moreno Valley, CA 92553

Re: Comments on Notice of Preparation of Programmatic EIR for MoVal  
2040: The Moreno Valley Comprehensive General Plan Update,  
Housing Element Update, and Climate Action Plan

Dear Mr. Ormsby:

Thank you for the opportunity to comment on the City of Moreno Valley's ("City") Notice of Preparation of Programmatic EIR for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan (collectively, "General Plan Update"). Consistent with section 15083 of Title 14 California Code of Regulations section 15000 *et seq.* (the "State CEQA Guidelines"), these comments are respectfully submitted as part of the City's early public consultation process on behalf of my client Mr. Shizao Zheng. Mr. Zheng owns approximately 33 acres of undeveloped land within the City's boundaries, identified as APN 256-150-001 and 256-150-008. Mr. Zheng intends to develop these parcels consistent with the City's vision for future development. Namely, Mr. Zheng intends to support the City's vision for a sustainable dynamic local economy, foster vibrant gathering places within the community, promote healthy and livable neighborhoods, and enhance a local sense of pride by developing an attractive development at a key gateway to the City.

As reflected in the City's Notice of Preparation, complying with the City's Regional Housing Needs Assessment ("RHNA") allocation is of paramount importance. The City's RHNA allocation for the current cycle is 13,495 units. According to the Department of Housing and Community Development, 97.6% of California cities did not meet their full RHNA goals during the last cycle. As the City is aware, cities that failed to meet their RHNA allocations have already lost land use decisionmaking authority to the State. (See e.g., SB 35-Weiner). Indeed, very

few jurisdictions avoided the mandates of SB 35 and it is likely that State-required mandates will become more expansive if cities fail to meet their future RHNA allocations.

The threat of losing local control is not illusory. Last year the State of California largely occupied the regulatory field for accessory dwelling units (“ADU”). (See AB 68-Weiner). AB 68’s stated purpose, like the purpose of the RHNA allocation and SB 35, is to address affordable housing needs. As the City is aware, AB 68 strips local jurisdictions of the authority to adopt minimum lot size ordinances for ADUs, expands the no-setback rule, and requires ministerial approval of ADU permit applications within 60 days. (See Gov. Code §65852.2.) If cities continually fail to meet their RHNA allocations, they can reasonably expect that AB 68 will serve as a precedent to expand the mandates of SB 35 and the State of California will divest cities of local land use control as it relates to housing in general.

Importantly, it must be noted that the COVID-19 pandemic is putting the City behind the curve with respect to meeting its RHNA allocation. While we do not know the magnitude of the pending market contraction and anticipated recession, we can already see negative impacts. Activity has instantly cooled in project acquisition, residential sales, and capital availability. This does not mean that project entitlements should slow down and, quite the opposite, the City should give high priority to project entitlements so that the City can achieve its RHNA goals. Immediate incentives should be considered to encourage willing projects to move forward.

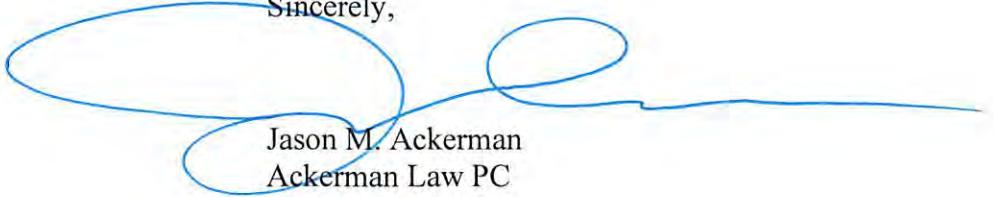
With these prefatory comments in mind, we submit the following comments:

1. Land Use – The EIR should consider a robust expansion to its housing element. Undeveloped areas should be analyzed consistently with their existing land use and zoning designations, but the City should be forward thinking and consider variable zoning that allows for significantly higher densities. Multi-family developments, especially in hillside communities, present opportunities for aggregated living spaces with large amounts of open space, access to outdoor activities such as the City’s recreational trail system, and attractive and affordable housing opportunities. The EIR should consider significant variable zoning density bonuses for project features that implement the City’s vision, such as percentages of project open space designations, affordability, and age and economic considerations.
2. Transportation/Traffic. The EIR should provide a complete analysis of potential traffic impacts within the City, including the use and expansion of future gateways to the City such as access along Morton/Garnett Road.
3. Utilities and City Services - The EIR should provide a comprehensive analysis of utility needs and impacts to facilitate the proposed land use element of the General Plan Update. Utility and Service coordination is required to facilitate development plans of undeveloped areas within the City.

4. Open Space – The EIR should consider how the City tracks dedicated open space and the General Plan Update should incorporate policies promoting dedication of open-space areas. Use of the City’s trail systems promote healthy lifestyles and recreational activities for the City’s residents. Mitigation such as the development of an open space management plan may be necessary.

One again, we appreciate the opportunity to present these comments to the City and we look forward to continuing to participate in the City planning process for its General Plan Update.

Sincerely,



Jason M. Ackerman  
Ackerman Law PC

cc: Ms. Shizao Zheng  
Ms. Lin Su



April 9, 2020

Mr. Chris Ormsby  
City of Moreno Valley, Community Development Department  
14177 Frederick Street, P.O. Box 88005  
Moreno Valley, California 92552  
Phone: (951) 413-3229  
E-mail: [chriso@moval.org](mailto:chriso@moval.org)

**RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for MoVal 2040: Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan [SCAG NO. IGR10145]**

Dear Mr. Ormsby,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for MoVal 2040: Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.<sup>1</sup> SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) goals and align with RTP/SCS policies.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for MoVal 2040: Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan in Riverside County. The proposed project consists of planning for the approximately 50 square miles (SQ. MI) within the City limits and its approximately 18 SQ. MI Sphere of Influence. This comprehensive update will apply to all elements of the General Plan, and includes the addition of two new Economic and Health Community elements to incorporate strategies for complying with new State law that came into force since the last comprehensive update and addressing emerging trends and new technologies.

**When available, please email environmental documentation to [au@scag.ca.gov](mailto:au@scag.ca.gov) or send to SCAG's Los Angeles office in Los Angeles (900 Wilshire Boulevard, Ste. 1700, Los Angeles, California 90017) providing, at a minimum, the full public comment period for review.**

If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Associate Regional Planner, at (213) 236-1874 or [au@scag.ca.gov](mailto:au@scag.ca.gov). Thank you.

Sincerely,

Ping Chang  
Manager, Compliance and Performance Monitoring

<sup>1</sup> Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

SOUTHERN CALIFORNIA  
ASSOCIATION OF GOVERNMENTS  
900 Wilshire Blvd., Ste. 1700  
Los Angeles, CA 90017  
T: (213) 236-1800  
[www.scag.ca.gov](http://www.scag.ca.gov)

REGIONAL COUNCIL OFFICERS

President  
**Bill Jahn, Big Bear Lake**

First Vice President  
**Rex Richardson, Long Beach**

Second Vice President  
**Clint Lorimore, Eastvale**

Immediate Past President  
**Alan D. Wapner, San Bernardino  
County Transportation Authority**

COMMITTEE CHAIRS

Executive/Administration  
**Bill Jahn, Big Bear Lake**

Community, Economic &  
Human Development  
**Peggy Huang, Transportation  
Corridor Agencies**

Energy & Environment  
**Linda Parks, Ventura County**

Transportation  
**Cheryl Viegas-Walker, El Centro**

**COMMENTS ON THE NOTICE OF PREPARATION OF A  
DRAFT ENVIRONMENTAL IMPACT REPORT FOR  
MOVAL 2040: COMPREHENSIVE GENERAL PLAN UPDATE,  
HOUSING ELEMENT UPDATE, AND CLIMATE ACTION PLAN [SCAG NO. IGR10145]**

**CONSISTENCY WITH RTP/SCS**

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

Please note the Draft 2020 RTP/SCS (Connect SoCal) was released for public review on November 14, 2019 until January 24, 2020. The Final Connect SoCal is anticipated to be adopted by SCAG's Regional Council in late April 2020. Please refer to Connect SoCal goals and growth forecast for RTP/SCS consistency for future projects. The Proposed Final Connect SoCal is now available for review here: <https://www.connectsocial.org/Pages/Connect-SoCal-Final-Plan.aspx>.

**2016 RTP/SCS GOALS**

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see <http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx>). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

<b>SCAG 2016 RTP/SCS GOALS</b>	
RTP/SCS G1:	<i>Align the plan investments and policies with improving regional economic development and competitiveness</i>
RTP/SCS G2:	<i>Maximize mobility and accessibility for all people and goods in the region</i>
RTP/SCS G3:	<i>Ensure travel safety and reliability for all people and goods in the region</i>
RTP/SCS G4:	<i>Preserve and ensure a sustainable regional transportation system</i>
RTP/SCS G5:	<i>Maximize the productivity of our transportation system</i>
RTP/SCS G6:	<i>Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)</i>
RTP/SCS G7:	<i>Actively encourage and create incentives for energy efficiency, where possible</i>
RTP/SCS G8:	<i>Encourage land use and growth patterns that facilitate transit and active transportation</i>
RTP/SCS G9:	<i>Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*</i>
<small>*SCAG does not yet have an agreed-upon security performance measure.</small>	

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS	
Goal	Analysis
RTP/SCS G1: <i>Align the plan investments and policies with improving regional economic development and competitiveness</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
RTP/SCS G2: <i>Maximize mobility and accessibility for all people and goods in the region</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
etc.	etc.

**2016 RTP/SCS STRATEGIES**

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: <http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx>. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

**DEMOGRAPHICS AND GROWTH FORECASTS**

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit <http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf>. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Moreno Valley Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	210,600	250,200	256,600
Households	6,458,000	7,325,000	7,412,300	58,600	71,200	73,000
Employment	8,414,000	9,441,000	9,871,500	55,900	80,200	83,200

**MITIGATION MEASURES**

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG’s Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: <http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx>). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

Please note the Draft Connect SoCal PEIR was released for public review from December 9, 2019 to January 24, 2020. The Final Connect SoCal PEIR is anticipated to be certified by SCAG's Regional Council in late April 2020. Please refer to the certified Final Connect SoCal PEIR and adopted Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) for future projects. The Proposed Final Connect SoCal PEIR is now available for review here: <https://www.connectsocial.org/Pages/Final-2020-PEIR.aspx>.

**Law Office of Abigail Smith,  
A Professional Corporation**

2305 Historic Decatur Road, Suite 100, San Diego, CA 92106

Abigail A. Smith, Esq.  
Email: [abby@socalceqa.com](mailto:abby@socalceqa.com)  
Telephone: (951) 808-8595  
Facsimile: (951) 972-8488

***VIA E-MAIL ONLY***

April 9, 2020

Chris Ormsby, Senior Planner  
Community Development Department  
City of Moreno Valley  
141777 Frederick Street  
Moreno Valley, CA 92553  
[chriso@moval.org](mailto:chriso@moval.org)

***Re: Notice of Preparation of Environmental Impact Report—Moreno Valley  
Comprehensive General Plan Update 2040***

Dear City of Moreno Valley:

On behalf of the Sierra Club-San Gorgonio Chapter, thank you for the opportunity to comment on the Notice of Preparation (“NOP”) for the Program Environmental Impact Report (“PEIR”) for the MoVal 2040: Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan. This Project proposes a comprehensive update to all elements of the City’s General Plan and the addition of two new elements, Economic Development and Healthy Communities. Our comments below are limited to the information in the NOP which does not include an Initial Study or any draft documents.

**The City Should Delay Future Meetings and Deadlines Until City Offices Reopen and the Public Can Safely and Fully Participate in the Planning Process**

At the outset we note that the public at the current time is unable to fully engage and participate in the General Plan Update planning process on account of the global pandemic crisis. City offices are currently closed and the public is under mandatory stay-at-home orders. Given the importance of the proposed Project, we strongly urge the City to postpone and delay all deadlines, meetings, and the release of any documents until members of the public can personally participate in this momentous planning effort that will shape Moreno Valley for many years to come. Online meetings are difficult to understand and are inaccessible for many residents who face technology limitations. The holding of online meetings does not permit the same level of meaningful public participation and civic engagement by all residents that this wide-ranging Project warrants.

## Land Use Designations: Environmental Justice Considerations

When assigning land use designations pursuant to the General Plan Update, we strongly encourage the City to follow the recommendation of the California Air Resources Board (“CARB”) that any land use designations which permit industrial/warehouse distribution uses should not be located within 1,000 feet of residential uses or areas designated for residential development.<sup>1</sup> Moreno Valley has approved numerous industrial warehouse facilities within close proximity of existing residences in recent years. The future General Plan land use plan should avoid designating land for industrial development of any kind near residential areas to minimize air quality and noise impacts to residents. In addition, appropriate buffers such as retail or commercial uses should separate industrial (or “business park” designations that permit industrial land uses such as warehousing) from residential land use designations and existing residential uses.

Importantly also, the General Plan Update must address and fully incorporate “environmental justice” planning principles in the designation of land uses. According to Gov’t Code Section 65040.12, subd. (e)(1), the term “environmental justice” “means the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” Gov’t Code Section 65040.12 (e)(2)(D) provides that “environmental justice” includes, “[a]t a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.” The General Plan Update must be fully consistent with Senate Bill 1000 and Gov’t Code § 65302 (h)(1) which requires that a general plan include “an environmental justice element... that identifies disadvantaged communities within the area.” The General Plan must specifically: “(A) Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity; (B) Identify objectives and policies to promote civil engagement in the public decisionmaking process; and (C) Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.”

Consistent with environmental justice principles, the General Plan shall not assign land uses in a manner so that disadvantaged and low income residential communities are located adjacent to or in proximity of industrial land uses (including any “business park” designations that permit warehousing), freeways, or other major sources of air pollution, noise, and traffic. We encourage the City to consult the Attorney General’s website for

---

<sup>1</sup> [www.arb.ca.gov/ch/handbook.pdf](http://www.arb.ca.gov/ch/handbook.pdf). This hyperlink and all hyperlinks are fully incorporated herein by reference.

information on incorporating environmental justice considerations into the General Plan Update.<sup>2</sup>

To the extent that the Project will impact disadvantaged communities, all feasible, enforceable mitigation must be proposed to lessen the impact. For instance, the SCAG's 2012-2035 Regional Transportation Plan ("RTP")<sup>3</sup> states that "potential mitigation for environmental justice impacts" includes: "*fund proactive measures* to improve air quality in neighboring homes, schools and other sensitive receptors"; "*provide education programs* about environmental health impacts to better enable residents to make informed decisions about their health and community"; and "engage in *proactive measures to train and hire local residents* for construction or operation of the project to improve their economic status and access to health care." (emphasis added).

### Air Quality Impacts: Enforceable Mitigation Is Necessary

The PEIR must propose enforceable mitigation measures that are *required* of site specific implementing projects to aggressively address conformance with applicable air quality standards as well as state legislation and regulations targeting the reduction of Greenhouse Gas Emissions (GHGs). Particular emphasis must be paid to measures to address tail pipe emissions insofar as the majority of harmful air quality emissions and GHGs are attributable to mobile sources. For instance, it is estimated that NOx emissions will need to be reduced by approximately two-thirds by 2023 and three-quarters by 2030 to meet applicable air quality standards.<sup>4 5</sup> Thus the City must require implementing projects to utilize the cleanest available technologies; and it must require future projects to provide infrastructure to support near-zero and zero emission vehicles and equipment. With respect to future industrial and warehouse uses, all implementing projects should be required through the GP Update to establish fleet efficiency requirements. This should include, at a minimum, requirements that all future commercial and industrial projects shall use exclusively zero emission light and medium-duty delivery trucks and vans, and they shall use only zero emission service equipment such as forklifts. As the State moves toward its goal of zero emission goods movement, the City must ensure that projects are in line with this important objective including requiring at a minimum the phase-in of zero emission or clean technology for heavy duty trucks for all relevant projects.

---

<sup>2</sup> <https://oag.ca.gov/environment/sb1000>

[http://opr.ca.gov/docs/20181120-EJ\\_Chapter\\_Public\\_Comment.pdf](http://opr.ca.gov/docs/20181120-EJ_Chapter_Public_Comment.pdf)

<sup>3</sup> [http://rtpscs.scag.ca.gov/Documents/2012/final/2012fRTP\\_ExecSummary.pdf](http://rtpscs.scag.ca.gov/Documents/2012/final/2012fRTP_ExecSummary.pdf)

<sup>4</sup> <http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf>

<sup>5</sup> <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/vision-for-clean-air-2012/draft-vision-for-clean-air-a-framework-for-air-quality-and-climate-planning.pdf?sfvrsn=4>

According to CARB, actions to deploy both zero emission and cleaner combustion technologies will be essential to meet air quality goals in California.<sup>6</sup> As such, the City should incorporate the policies and goals of the State’s Zero Emission Vehicle (ZEV) Action Plan and Executive Order B-48-18 (setting a target of 5 million ZEVs in California by 2030) into General Plan policies and goals related to transportation and air quality for both public and private projects. With respect to goods movement, CARB is working towards the implementation of a sustainable freight transport system that relies on zero and near-zero emission equipment powered by renewable energy sources. According to CARB, a zero and near-zero emission freight system will demand not only new equipment and fuels but also *new transportation infrastructure*, communications and *industry operating practices*. The City must therefore incorporate into the GP Update plans and requirements to enable the State to meet its sustainable freight transport goals. This should include tangible measures to increase the availability of charging and refueling stations and other zero-emission vehicle infrastructure including direct current fast chargers. This also should include incorporating the use of near-zero and zero-emission technologies into heavy-duty applications such as the “last mile delivery.” The City should fully investigate and evaluate all zero emission vehicle measures, policies, and plans of regional and State agencies to ensure that the GP Update includes progressive measures to advance the State’s goals with respect to zero emission goods movement.<sup>7</sup>

### Energy

The PEIR shall propose enforceable measures to ensure compliance with and the advancement of the policies and goals of Senate Bill 100 which commits to 100% clean energy in California by 2045. The City must propose measures through the GP Update that promote energy efficiency beyond existing regulatory requirements. For instance, requiring commercial and industrial projects to utilize solar energy is one means to ensure that the State can meet its laudable energy efficiency goals. Moreover, strong energy efficiency measures are needed to reduce California’s GHG emissions as electricity generation accounts for approximately 30% of California’s GHG emissions.<sup>8</sup>

### Greenhouse Gas Emissions

With respect to GHGs, Executive Order S-3-05 establishes a 2030 target of a 40 percent GHG reduction below 1990 levels; Executive Order S-3-05 establishes a GHG emission reduction target of 80% below 1990 levels by 2050; and Executive Order B-16-2012 establishes a target for the reduction of GHG emissions from the transportation sector of 80% below 1990 levels by 2050. Therefore, the City must take all steps through its land

---

<sup>6</sup> <https://ww3.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf>

<sup>7</sup> *E.g., see*, <https://business.ca.gov/industries/zero-emission-vehicles/zev-action-plan/> . *See also*, <https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html>

<sup>8</sup> <http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf>

use plans to ensure that future projects are in conformance with these GHG emission reduction targets. Strong, enforceable mitigation measures will be required of implementing projects.

As the transportation sector is the largest source of GHG emissions in the State, accounting for roughly 40 percent of California's GHGs, the City must incorporate transportation measures through the GP Update that are designed to reduce fuel use in cars and trucks. This would include reducing vehicle miles traveled ("VMT") through "Smart Land Use" planning such as designating land uses to improve the City's jobs/housing balance. Land use plans should include a mix of housing and commercial land use designations that are intended to provide housing and employment opportunities for residents at different income and professional levels, thus reducing the need for residents to commute longer distances to employment centers. It is important to assign land uses that enable a diversity of employment opportunities to ensure that "smart growth" principles are advanced.

A robust analysis of the Project's GHG emissions with enforceable GHG mitigation is important through the PEIR because global climate change has already resulted in irreversible environmental consequences. Particularly where the transportation sector is the largest source of GHG emissions in California, the Project must fully evaluate the cumulative impact of proposed land use changes, and land use plans shall be designed to lessen the Project's cumulative impacts by reducing VMT. To this end, the Project must include enforceable measures to increase the use of public transit and alternatives to vehicle use such as the incorporation of transit stops, pedestrian walkways, and extension of bike trails and lanes in transportation plans. Affordable housing should be located near transit centers, shopping, bus routes, bicycle paths and sidewalks to promote walkability.

#### Consistency with Regional Land Use Plans

The Project must be fully consistent with all regional planning documents, including, but not limited to, the SCAG's 2012-2035 Regional Transportation Plan ("RTP") including the RTP's "regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2023-2035 time frame and clear steps to move toward this objective."<sup>9</sup>

#### Transportation

Should the PEIR find that necessary transportation mitigation measures are outside the control of the City or are under the jurisdiction of another public agency, the PEIR and General Plan should include timelines and milestones for limiting development until the necessary improvements are made. Furthermore, the City should establish mitigation

---

<sup>9</sup> [http://rtpscs.scag.ca.gov/Documents/2012/final/2012fRTP\\_ExecSummary.pdf](http://rtpscs.scag.ca.gov/Documents/2012/final/2012fRTP_ExecSummary.pdf)

programs for all necessary improvements rather than find the traffic impact significant and unmitigable.

### Truck Routes

Through the GP Update the City should revisit and re-designate truck routes to ensure that routes are limited to major streets and highways and not through residential neighborhoods or near schools. As it is, City-designated truck routes traverse residential neighborhoods and impact sensitive receptors such as school children.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in cursive script that reads "Abigail Smith".

Abigail Smith, Esq.

# Residents for a Livable Moreno Valley Info

29177 Stevens Avenue, Moreno Valley, CA 92555

April 9, 2020

Chris Ormsby, Senior Planner  
Community Development Department  
City of Moreno Valley  
141777 Frederick Street  
Moreno Valley, CA 92553  
chriso@moval.org

Sent via E-mail

Subject: Notice of Preparation for MoVal 2040 Program Environmental Impact Report

Dear Mr. Ormsby

On behalf of concerned area residents through the Residents for a Livable Moreno Valley, I hereby submit these comments on the Notice of Preparation for the Program Environmental Impact Report for the MoVal 2040: Comprehensive General Plan Update. Since it is the City's intent to adopt a Programmatic Environment Impact Report (PEIR) it is believed that the city will rely on the PEIR to forgo further environment reviews as development proposals come forth. If this is the case then this PEIR must include substantial mitigation measures to address expected development impacts and provide guidelines for those types of projects that go beyond the scope of the PEIR's evaluations and thus must be subject to more intense review include a need for and EIR. It is feared that the city will whitewash a large portion of intensive impacts for its opportunity to encourage development. Responsible and safe development must be the city's priority. The comments that follow reflect a variety of community concerns that residents want addressed.

1. The proper distance separation from warehousing to residential uses should be of a significant distance to lower air quality, noise, and aesthetic impacts. Multiple factors play into the need for greater setbacks.
  - a. Air pollution from truck exhaust is a major air quality impact and only distances of 1,000 feet or greater should be considered. Multiple studies and agencies back this figure.
  - b. Noise concerns and concerns for nuisance noises (those that fall below decibel thresholds) need to be addressed. Nuisance noises from businesses permitted to operate 24/7 can produce irritating noises such as those associated with truck deliveries involving cargo doors opening and closing, backup beeping, trucks idling and building equipment operations. These become distracting background noise that can grate on a person peace and tranquility at their residence. What can be done to address this problem?
  - c. How will added truck traffic noise along roadway from expanded land uses permitting warehouse be addressed? Existing circulation routes run adjacent to existing residential development.

- d. Large (long & tall) buildings some 2,000 feet long with permitted heights to 100 feet create aesthetic obstructions and substantially degrade the existing visual character of public views. Though designated “scenic vistas” do not exist in our community the degrading of the existing visual character with massive walls of warehouses are not only intrusive they lack instigated aesthetic relief. Therefore, greater setbacks need to be established from all publically visible area along with residential property. Suggest a setback ratio greater the 3:1 for the height.
2. For environmental justice housing should be kept away from pollutant sources appropriate distances to all areas where concentrated air pollution occurs. This should include adjacent to freeway, warehouses, and heavy industrial uses.

#### Air Quality & Green House Gases

3. There is no doubt that air quality impacts will be of great significance to the community. Offer a broad range of mitigations that can be implemented to insure future development does as much as possible without the option to use the override of said impacts. Provide a list of feasible mitigation that must be implemented. Please define and list these.
4. When it comes to GHG mitigation the ultimate results would be a net zero impact. This is admirable and it is commendable if it can be done. However, if a project would chose to pursue credits they must be sourced locally first before moving onto regional or state credit options. Credits to limit impacts outside of the community do not directly offset a project impact thus the danger will remain and add to the cumulative impacts. Make sure this is address in detail.
5. Evaluations must be done that define acceptable separation of residential uses and sensitive receptor from all air quality impacts.

#### Economic Evaluations

6. A jobs/housing balance it important factor but the intent of achieving this should be from diverse job opportunities with businesses that have a higher per square foot ratio than warehouses. Large quantities of land in the community and surrounding areas have been designated for warehousing whether built or awaiting development. Further land use designations will only diminished future opportunities for land available for development of business with greater job diversity and density.
7. There has been talk of bring in and creating “well-paying jobs” for the community to limit residents need to travel elsewhere for better paying jobs.. Define what wage range qualifies as a well-paying jobs. This should, at least, be a wage that would sustain a family of say four above a level that would qualify them for any form of family assistance (including school lunch programs).
8. The city’s push for warehouse and distribution facilities has been encouraged by economists date about the average pay for those involved in the logistics sector. However, the actual range and quantity of jobs offered need to documented along with their wage rate so a clear interpretation can be made regarding the value of the jobs brought to Moreno Valley.
9. What is considered “adequate infrastructure” that will support “local job growth” and what will be the costs to the community? Both financially and physically.
10. Improving the “socio-economic conditions” must include job diversity beyond logistic jobs. Buildout of exiting land uses and approved projects will leave the city job heave in one industry

that is not known to pay well for the majority of the workers. Provide the insight into what will balance our community.

11. Please provide an evaluation of property tax revenue and the cost of services over time. By this we want to see the property tax revenue relevant to new construction and its cost impact to community services. With service rate exceeding property tax incremental allowances there should come a point when taxes no longer cover services. Make sure this is properly explained for all developable land uses.
12. How financially responsible is the city with its transportation revenues to assure it can meet improvement obligations.

#### Land Use / Population and Housing

13. There has been talk of having a “flexible land use framework” and this should be well defined with what it entails for the possible range of zoning that could be permitted under a designated land use. Address how the PEIR will be able to balance variations in uses that bring on more intensive impacts.
14. Assess and evaluate the impacts various land uses will have on each other. Define what uses best buffer intensively negative uses from less intensive uses (such as residential to industrial).
15. Explain how interweaving of land uses would not be considered an impact that divides a community. For example the northeastern portion of the city contains a large amount of vacant land with parcels large enough for warehouses but ingress into this area would divide it from other residential development. Dropping warehouse or other industrial uses in the middle of residential areas diminishes a sense of community.
16. Explain the value of keeping a diverse mix of residential development opportunities.
17. Explain why or why not the city won’t consider diminishing development intensity at the eastern and northern limits of the community. Urban limits typically have diminished intensities at their peripheries. What is the city’s stand?
18. Make sure the land use data used reflects accurately on the built and approved development (specific plans or entitlements) when evaluating the available potential of currently vacant land.
19. With the desire of the city to be diverse and environmentally responsible, address the likelihood the city would encourage agricultural land use so the city could be more self-sustaining.
20. Address whether the city’s animal keeping overlay would be maintained over properties currently permitted this use. The removal of land uses that permit this opportunity diminishes housing diversity and the ease with which property owners can maintain horses and use the trail network developed to accommodate them in on the eastern edge of the community.

#### Biological Resources

21. On the north, east, and southeast perimeters of the city are lands designated as open space or habitat. Address how development should be placed in proximity to these areas to limit its impact into the natural environment. Address:
  - a. Light/glare and noise
  - b. Pet intrusion
  - c. Invasive species
  - d. Water runoff

## Circulation

22. Address the appropriate ways to mitigatable impacts whose mitigation measure compliance is reliant on outside agencies and out of the city or the developer's control. Many traffic related mitigation measures for recent project approvals require the involvement of regional transportation agencies that decide when and what improvements should be made. Until improvements can be made the circulation level of streets could fall below acceptable standards as development occurs. Mitigation measures under outside control are not enforceable so they should include timelines and milestones for limiting development until improvements are made in the name of safety and general welfare. Please address and include mitigation to that limits development or offers leverage to assure impacts will be mitigate before problem arise.
23. Address and provide mitigation that stops all impacts associated with regular truck traffic passing by locations with sensitive receptors to assure limiting air impacts and insuring safety.
24. The World Logistics Center and any future high traffic generating uses north of SR-60 will severely impact traffic flow at the freeway interchanges for Redlands Blvd., Moreno Beach, and Theodore Avenue. How with this be addressed and improvements implemented.
25. Redlands Blvd provides access San Timoteo Canyon for daily commuters. Since this is a heavily travel commuter route that is designated a truck route, how will the city and the county jointly deal with the impacts? The LOS for AM & PM traffic is already at level F at Redlands and San Timoteo Canyon. Although, this intersection is outside the city limits commuter from this community currently are the primary cause. Future development plus additional truck traffic with require major improvement. How will the city participate in making these improvements?
26. Traffic impacts at freeway interchanges will be impacted with future development. Address the timing and milestones that will limit development until the necessary improvements can be cleared and built with the approval of Caltrans and the RCTC.
27. How will the city make circulation improvement in those area of the city that will not have potential for development that would otherwise pay or install the improvements?

## Energy

28. To best meet state requirements for renewable energy address the opportunities available to the city to promote extensive rooftop solar. The available warehouse rooftop and parking lot square footage could provide a tremendous offset and provide mitigation for air quality impacts. Doing so could potentially provide a net zero GHG mitigation. This should become a mandatory objective of the city. What measure will the city take?

## Hydrology and Water

29. With the city's past emphasis on large warehouses the total impervious surface area of the city has drastically increased. Provide creative mitigation options for on-site water retention and appropriate storm drain capacity.
30. One of the draft MoVal 2040 maps shows the northeaster portion of the city to be in a flood zone. The exiting grade from the northern hillsides downward to SR-60 does not appear to warrant inclusion in a flood zone. Please address the actual flooding potential and whether there is a need for reevaluation by FEMA.

## Housing

31. How does the city plan to address the housing needs in such a fashion that the higher density residential will be located in areas that provide for many personal need with the option to get services without the need for personal transportation?
32. Without knowing what land use changes are proposed it is difficult to ascertain the proper placement of housing. What guiding principles will be provided to assure proper placement of development will occur to meet the housing needs and requirements of the state without compromising the results of the PEIR?
33. How will the state's recent legislation to ease housing development impact the proposed land use at the time of the general plan's adoption and as time passes? How can the future impacts of property owners' exercising their option to increase density affect all aspects of the EIR?

## Social Justice

34. For all intentent purposes MV comes across as a disadvantage community thus we need to fully address all aspect with special interest to environmental impacts on the residents. The city's massive push for warehousing does not always provide a livable wage and it brings heavy pollution from the truck traffic and roadway congestion right next to homes. Employees in this industry and the surround community suffer the impacts of exhaust fumes. It seems our community, at its current SoEco level, has been the location of choice for industries that don't pay well and cause community harm along with increase traffic congestion. We need to move beyond this and raise the appeal of our community so better jobs creators desire to locate here. Please refrain from using the lower education rates of many of our residence as justification for low skill jobs industries such as the logistics industry. On perpetuates the other and the city needs a focus on better jobs and high graduation rate and continued education and skilled job training. Explain the steps the city must take to make this a reality.

Should you have any questions feel free to contact me and keep me informed of the progress of the MoVal 2040 General Plan Update.

Sincerely,

Tom Thornsley  
Residents for a Livable Moreno Valley



Attn. Chris Ormsby, AICP  
Community Development Department  
City of Moreno Valley  
14177 Frederick St.  
Moreno Valley, CA  
92553

**RE: MoVal 2040 NOP Comments**

Dear Mr. Ormsby,

The Riverside University Health System-Public Health (RUHS-PH) is pleased to provide the following comments as part of the MoVal 2040 Notice of Preparation for an Environmental Impact Report. RUHS-PH respectfully request that the Environmental Impact Report include a Health Impact Assessment (HIA) that evaluates the merits of this General Plan Update related to the positive and negative effects over Moreno Valley's population. The HIA preparation should be prepared concurrently with the EIR Scoping session to identify specific public health topics that the community at large would like the study to address. Some initial topics linked to the prevalence or absence of major chronic diseases the study should include are:

1. Access to Healthy Foods/ Food Deserts
2. Active Transportation/ Public places to stay physically active
3. Tobacco Control
4. Community Design

This request is in full consistence with:

1. The City Council's vision for "Promoting Healthy and Livable Neighborhoods" in the City's General Plan Update;
2. The development of the two new proposed and intrinsic elements: Healthy Communities and Economic Development;
3. SB1000 compliance, and
4. Mitigation of the ongoing effects of COVID-19 health crisis.

---

Kim Saruwatari, M.P.H., Director

Cameron Kaiser, M.D., Public Health Officer



Our team is open to participate closely with you and/or your team of consultants in the development of the HIA and any public health-related recommendations, policy development and plan implementation.

Should you have any questions, please contact me at [mvazquez@ruhealth.org](mailto:mvazquez@ruhealth.org) or at (951) 358-7171.

Thank you for your consideration,

Miguel A. Vazquez, AICP  
Healthy Communities Urban and Regional Planner

# AIRPORT LAND USE COMMISSION RIVERSIDE COUNTY



January 15, 2021

Mr. Chris Ormsby, Senior Planner  
Community Development Department City of Moreno Valley  
14177 Frederick Street  
Moreno Valley CA 92553

**CHAIR**  
Steve Manos  
Lake Elsinore

**VICE CHAIR**  
Russell Betts  
Desert Hot Springs

**COMMISSIONERS**

Arthur Butler  
Riverside

John Lyon  
Riverside

Steven Stewart  
Palm Springs

Richard Stewart  
Moreno Valley

Gary Youmans  
Temecula

**STAFF**

Director  
Simon Housman

John Guerin  
Paul Rull  
Barbara Santos

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

[www.rcaluc.org](http://www.rcaluc.org)

**RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW REQUIRED**

Jurisdiction Project Case: MoVal 2040 General Plan Update

Dear Mr. Ormsby:

Thank you for providing the Riverside County Airport Land Use Commission (ALUC) with a copy of the transmittal for the City of Moreno Valley case; a proposal for a comprehensive update of the City's General Plan.

ALUC staff has determined that the project is located within Compatibility Zones A, B1, B2, C1, D and E of March Air Reserve Base/Inland Port Airport Influence Area which has varying restrictions to residential density and non-residential intensity.

California Public Utilities Code section 21676 requires the local agency to refer any amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within an Airport Land Use Compatibility Plan (ALUCP) to the ALUC. Additionally, California Public Utilities Code Section 21676.5 allows the ALUC to review all projects within the Airport Influence Area when the local jurisdiction's General Plan is not consistent with the applicable ALUCP. Since the General Plan is not consistent with the ALUCP and/or because the project contemplates amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation, the ALUC requests that you submit the above-identified project(s) for its review. ALUC staff is also available to assist in bringing your jurisdiction's General Plan into consistency with the applicable ALUCP, if the local jurisdiction so desires.

If you have any questions, please contact Paul Rull, ALUC Principal Planner, at (951) 955-6893.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Paul Rull, ALUC Principal Planner



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
3602 Inland Empire Blvd., Suite C-220  
Ontario, CA 91764  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

*GAVIN NEWSOM, Governor*  
*CHARLTON H. BONHAM, Director*



April 8, 2020  
*Sent via email*

Mr. Chris Ormsby  
Senior Planner  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, CA 92553  
[chriso@moval.org](mailto:chriso@moval.org)

Subject: Notice of Preparation of a Draft Program Environmental Impact Report  
City of Moreno Valley Comprehensive General Plan Update, Housing  
Element Update, and Climate Action Plan Project  
State Clearinghouse No. 2020039022

Dear Mr. Ormsby:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Program Environmental Impact Report (DPEIR) from the City of Moreno Valley (City) for the City of Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

### **CDFW ROLE**

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of

---

<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

## **PROJECT DESCRIPTION SUMMARY**

The Project proposes a comprehensive update to all elements of the General Plan, and the addition of two new elements: Economic Development and Healthy Communities, to reflect City's growth and vision for a future horizon year of 2040.

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to the Project's consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

CDFW recognizes that the general plan DPEIR need not be as detailed as CEQA documents prepared for specific projects that may follow (CEQA Guidelines § 15146). CDFW also recognizes that the level of detail should be reflective of the level contained in the plan or plan element being considered (*Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4<sup>th</sup> 351). However, please note that the City cannot defer the analysis of significant effects of the general plan to later-tiered CEQA documents (*Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4<sup>th</sup> 182).

CDFW recommends that the forthcoming DPEIR address the following:

### **Assessment of Biological Resources**

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the

DPEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

CDFW recommends that the DPEIR specifically include:

1. An assessment of the various habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009<sup>2</sup>). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW's California Natural Diversity Database (CNDDDB) in Sacramento should be contacted at (916) 322-2493 or [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov) to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be effected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in

---

<sup>2</sup> Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A manual of California Vegetation*, 2<sup>nd</sup> ed. California Native Plant Society Press, Sacramento, California. <http://vegetation.cnps.org/>

consultation with CDFW and the U.S. Fish and Wildlife Service (USFWS), where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018)<sup>3</sup>;
5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).
6. A full accounting of all mitigation/conservation lands within and adjacent to the Project.

### **Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources**

The DPEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to affect biological resources as a result of the Project (including the plan's land use designations, policies and programs). To ensure that project impacts to biological resources are fully analyzed, the following information should be included in the DPEIR:

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by Project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

With respect to defensible space: please ensure that the DPEIR fully describes and identifies the location, acreage, and composition of defensible space *within* proposed development land use designations. Please ensure that any graphics and descriptions of defensible space associated with this Project comply with Riverside

---

<sup>3</sup> California Department of Fish and Wildlife (CDFW). 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plan Populations and Sensitive Natural Communities*. State of California, Natural Resources Agency. Available for download at: <https://wildlife.ca.gov/Conservation/Plants>

County Fire (or other applicable agency) regulations/ requirements. The City, through their planning processes, should be ensuring that defensible space is provided and accounted for *within proposed development land use designated areas*, and not transferred to adjacent open space or conservation lands.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or conservation/mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).

Please note that the Project area supports significant biological resources and contains habitat connections, providing for wildlife movement across the broader landscape, sustaining both transitory and permanent wildlife populations. CDFW encourages the City to consider project design that avoids and preserves onsite features that contribute to habitat connectivity. The DPEIR should include a discussion of both direct and indirect impacts to wildlife movement and connectivity, including maintenance of wildlife corridor/movement areas to adjacent undisturbed habitats.

3. An evaluation of impacts to adjacent open space lands from both the Project and long-term operational and maintenance needs.
4. A cumulative effects analysis developed as described under CEQA Guidelines § 15130. CDFW recommends that the DPEIR analyze the cumulative effects of the plan's land use designations, policies and programs on the environment. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

### **Alternatives Analysis**

CDFW recommends that the DPEIR describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would "feasibly attain most of the basic objectives of the Project," and would avoid or substantially lessen any of the Project's significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis should also evaluate a "no project" alternative (CEQA Guidelines § 15126.6[e]). The no Project alternative should evaluate how the changing environment, such as climate change and drought, may affect the community if a new or revised general plan were not adopted.

## **Mitigation Measures for Project Impacts to Biological Resources**

CDFW recommends that the DPEIR identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. The City should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DPEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the DPEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.
2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DPEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.
3. *California Species of Special Concern (CSSC)*: CSSC status applies to animals generally not listed under the federal Endangered Species Act or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSCs should be considered during the environmental review process.
4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DPEIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail.

The DPEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative

losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DPEIR. CEQA Guidelines §15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc. v. County of Orange* (2005) 131 Cal. App. 4th 777).

CDFW recommends that the DPEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, for mitigation measures to be effective, they should be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum:
  - (a) the location of restoration sites and assessment of appropriate reference sites;
  - (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates;
  - (c) a schematic depicting the mitigation area;
  - (d) a local seed and cuttings and planting schedule;
  - (e) a description of the irrigation methodology;
  - (f) measures to control exotic vegetation on site;
  - (g) specific success criteria;
  - (h) a detailed monitoring program;
  - (i) contingency measures should the success criteria not be met; and
  - (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or

association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act*: Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

CDFW recommends that the DPEIR include specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DPEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. If pre-construction surveys are proposed in the DPEIR, CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

### **California Endangered Species Act**

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project; unless this Project is proposed to be

a covered activity under the MSHCP. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. The California Fish and Game Code requires that CDFW comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DPEIR addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of CESA.

### **Western Riverside County Multiple Species Habitat Conservation Plan**

CDFW issued Natural Community Conservation Plan Approval and Take Authorization for the Western Riverside County MSHCP per Section 2800, *et seq.*, of the California Fish and Game Code on June 22, 2004. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit.

Compliance with approved habitat plans, such as the MSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the MSHCP as a result of this Project is necessary to address CEQA requirements. To obtain additional information regarding the MSHCP please go to: <http://rctlma.org/epd/WR-MSHCP>.

The proposed Project occurs within the MSHCP area and is subject to the provisions and policies of the MSHCP. In order to be considered a covered activity, Permittees need to demonstrate that proposed actions are consistent with the MSHCP and its associated Implementing Agreement. The City is the Lead Agency and is signatory to the Implementing Agreement of the MSHCP. The entirety of the project is located within the MSHCP. The DPEIR should address how individual projects will demonstrate consistency with the policies and procedures of the MSHCP, including: Joint Project Review (JPR) process through the RCA (where relevant), Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP section 6.1.2), Protection of Narrow Endemic Plant Species (MSHCP section 6.1.3), Additional Survey Needs and Procedures for burrowing owl and Criteria Area Species (MSHCP section 6.3.2), and the Guidelines Pertaining to the Urban/Wildlands Interface (MSHCP section 6.1.4).

Regardless of whether take of threatened and/or endangered species is obtained through the MSHCP or through a CESA ITP, the DPEIR needs to address how the proposed Project will affect the policies and procedures of the MSHCP.

## **Lake and Streambed Alteration Program**

Based on review of aerial photography, the City boundary encompasses a multitude of ephemeral streambeds. CDFW recommends that the City condition the DPEIR to include a mitigation measure for consultation with CDFW to determine if Fish and Game Code section 1600 *et seq.* resources may occur within a proposed project area. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify the project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DPEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <https://www.wildlife.ca.gov/Conservation/LSA/Forms>.

## **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: [http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDDB\\_FieldSurveyForm.pdf](http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDDB_FieldSurveyForm.pdf). The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: [http://www.dfg.ca.gov/biogeodata/cnddb/plants\\_and\\_animals.asp](http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp).

## **FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

## **CONCLUSION**

CDFW appreciates the opportunity to comment on the NOP of a DPEIR for the City of Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan Project (SCH No. 202039022) and recommends that City address CDFW's comments and concerns in the forthcoming DPEIR. If you should have any questions pertaining to the comments provided in this letter, please contact Joanna Gibson, Senior Environmental Scientist, Specialist, at (909) 987-7449 or at [joanna.gibson@wildlife.ca.gov](mailto:joanna.gibson@wildlife.ca.gov).

Sincerely,



Scott Wilson  
Environmental Program Manager

ec: California Department of Fish and Wildlife  
HCPB CEQA Coordinator

Office of Planning and Research, State Clearinghouse  
[State.clearinghouse@opr.ca.gov](mailto:State.clearinghouse@opr.ca.gov)

# MARCH JOINT POWERS AUTHORITY



**April 3, 2020**

**Chris Ormsby, AICP**

Senior Planner

City of Moreno Valley

Community Development Department

14177 Frederick Street

P.O. Box 88005

Moreno Valley, CA 92552-0805

**RE: Notice of Preparation of a Program Environmental Impact Report for the MoVal 2040,  
The Moreno Valley Comprehensive General Plan Update, Housing Element Update and Climate  
Action Plan**

**Dear Mr. Ormsby:**

March Joint Powers Authority staff has completed their review of the **Notice of Preparation of a Program Environmental Impact Report for the MoVal 2040, The Moreno Valley Comprehensive General Plan Update, Housing Element Update and Climate Action Plan**. We have no comments at this time. When available, please provide the March Joint Powers Authority a copy of, or link to the Draft EIR when completed.

If you have any questions regarding our comments or need additional information, please feel free to contact me at (951) 656-7000, or by email at, [smith@marchjpa.com](mailto:smith@marchjpa.com). Thank you.

Sincerely,

**Jeffrey M. Smith, AICP**

Senior Planner

March Joint Powers Authority



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

SENT VIA E-MAIL:

April 1, 2020

[chriso@moval.org](mailto:chriso@moval.org)

Chris Ormsby, AICP, Senior Planner  
City of Moreno Valley, Community Development Department  
14177 Frederick Street  
Moreno Valley, CA 92553

## **Notice of Preparation of a Program Environmental Impact Report for the Proposed MoVal 2040**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Program Environmental Impact Report (EIR). Please send South Coast AQMD a copy of the Program EIR upon its completion and public release. Note that copies of the Program EIR that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the Program EIR directly to South Coast AQMD at the address shown in the letterhead. **In addition, please send with the Program EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files<sup>1</sup>. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

### **Air Quality Analysis**

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD staff recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analyses. Copies of the Handbook are available from the South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on South Coast AQMD's website at: [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

On March 3, 2017, the South Coast AQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP), which was later approved by the California Air Resources Board on March 23, 2017.

---

<sup>1</sup> Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NO<sub>x</sub>) emissions in 2023 and an additional 55 percent NO<sub>x</sub> reduction beyond 2031 levels for ozone attainment. The 2016 AQMP is available on South Coast AQMD's website at: <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.

South Coast AQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between Lead Agencies and South Coast AQMD to reduce community exposure to source-specific and cumulative air pollution impacts, South Coast AQMD adopted the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning in 2005<sup>2</sup>. This Guidance Document provides suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. South Coast AQMD staff recommends that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions. Additional guidance on siting incompatible land uses (such as placing homes near freeways or other polluting sources) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: <http://www.arb.ca.gov/ch/handbook.pdf>. Guidance<sup>3</sup> on strategies to reduce air pollution exposure near high-volume roadways can be found at: [https://www.arb.ca.gov/ch/rd\\_technical\\_advisory\\_final.PDF](https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF).

South Coast AQMD has also developed both regional and localized air quality significance thresholds. South Coast AQMD staff requests that the Lead Agency compare the emissions to the recommended regional significance thresholds found here: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by South Coast AQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

When specific development is reasonably foreseeable as result of the goals, policies, and guidelines in the Proposed Project, the Lead Agency should identify any potential adverse air quality impacts and sources of air pollution that could occur using its best efforts to find out and a good-faith effort at full disclosure in the EIR. The degree of specificity will correspond to the degree of specificity involved in the underlying activity which is described in the EIR (CEQA Guidelines Section 15146). When quantifying air quality emissions, emissions from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources,

---

<sup>2</sup> South Coast AQMD. 2005. Accessed at: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

<sup>3</sup> In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: <https://www.arb.ca.gov/ch/landuse.htm>.

such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, for phased projects where there will be an overlap between construction and operational activities, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

### **Mobile Source Health Risk Assessment**

Notwithstanding the court rulings, South Coast AQMD staff recognizes that the Lead Agencies that approve CEQA documents retain the authority to include any additional information they deem relevant to assessing and mitigating the environmental impacts of a project. Because of South Coast AQMD staff's concern about the potential public health impacts of siting sensitive populations within close proximity of freeways and other sources of air pollution, South Coast AQMD staff recommends that, prior to approving the project, Lead Agencies consider the impacts of air pollutants on people who will live in a new project and provide mitigation where necessary.

Based on review of Figure 1, *Planning Area*, enclosed in the Notice of Preparation, South Coast AQMD staff found that sensitive land uses may be located within close proximity to Interstate 215 and State Route 60. Sensitive receptors would be exposed to diesel particulate matter (DPM) emitted from heavy-duty, diesel-fueled on-road vehicles. DPM is a toxic air contaminant and a carcinogen. Since sensitive receptors would be exposed to toxic emissions, South Coast AQMD staff recommends that the Lead Agency conduct a mobile source health risk assessment (HRA)<sup>4</sup> in the Program EIR to disclose the potential health risks<sup>5</sup>. The HRA will facilitate the purpose and goal of CEQA on public disclosure and enable decision-makers with meaningful information to make an informed decision on project approval. This will also foster informed public participation by providing the public with useful information that is needed to understand the potential health risks from living and working within close proximity to freeways.

### **Mitigation Measures**

If the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the Proposed Project, including:

- Chapter 11 "Mitigating the Impact of a Project" of South Coast AQMD's *CEQA Air Quality Handbook*
- South Coast AQMD's CEQA web pages available here: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>

---

<sup>4</sup> South Coast AQMD. *Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

<sup>5</sup> South Coast AQMD has developed the CEQA significance threshold of 10 in one million for cancer risk. When South Coast AQMD acts as the Lead Agency, South Coast AQMD staff conducts a HRA, compares the maximum cancer risk to the threshold of 10 in one million to determine the level of significance for health risk impacts, and identifies mitigation measures if the risk is found to be significant.

- South Coast AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- California Air Pollution Control Officers Association's (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* available here:  
<http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

### **Health Risks Reduction Strategies**

As stated above, the Proposed Project is located within close proximity to freeways. Many strategies are available to reduce exposures, including, but are not limited to, building filtration systems with MERV 13 or better, or in some cases, MERV 15 or better is recommended; building design, orientation, location; vegetation barriers or landscaping screening, etc. Enhanced filtration units are capable of reducing exposures. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit.

Enhanced filtration systems have limitations. South Coast AQMD staff recommends that the Lead Agency consider the limitations of the enhanced filtration. For example, in a study that South Coast AQMD conducted to investigate filters<sup>6</sup>, a cost burden is expected to be within the range of \$120 to \$240 per year to replace each filter. The initial start-up cost could substantially increase if an HVAC system needs to be installed. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the sensitive receptors (e.g., residents). It is typically assumed that the filters operate 100 percent of the time while sensitive receptors at the Proposed Project are indoors, and the environmental analysis does not generally account for the times when sensitive receptors have their windows or doors open or are in common space areas of the project. In addition, these filters have no ability to filter out any toxic gases from vehicle exhaust. Therefore, the presumed effectiveness and feasibility of any filtration units should be carefully evaluated in more detail prior to assuming that they will sufficiently alleviate exposures to DPM emissions.

Because of the limitations, to ensure that enhanced filters are enforceable throughout the lifetime of the Proposed Project as well as effective in reducing exposures to DPM emissions, South Coast AQMD staff recommends that the Lead Agency provide additional details regarding the ongoing, regular maintenance and monitoring of filters in the environmental analysis. To facilitate a good faith effort at full disclosure and provide useful information to people who will live at the Proposed Project, the environmental analysis should include the following information, at a minimum:

- Disclose the potential health impacts to sensitive receptors from living in close proximity of sources of air pollution and the reduced effectiveness of air filtration system when windows are open and/or when receptors are outdoor (e.g., in the common and open space areas);
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are installed on-site at the Proposed Project before a permit of occupancy is issued;
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are inspected regularly;
- Provide information to sensitive receptors on where the MERV filters can be purchased;
- Disclose the potential increase in energy costs for running the HVAC system to sensitive receptors;
- Provide recommended schedules (e.g., once a year or every six months) for replacing the enhanced filtration units to sensitive receptors;

---

<sup>6</sup> This study evaluated filters rated MERV 13 or better. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf>. Also see 2012 Peer Review Journal article by South Coast AQMD: <https://onlinelibrary.wiley.com/doi/10.1111/ina.12013>.

- Identify the responsible entity such as sensitive receptors themselves (e.g., residents), Homeowner's Association, or property management for ensuring enhanced filtration units are replaced on time, if appropriate and feasible (if sensitive receptors should be responsible for the periodic and regular purchase and replacement of the enhanced filtration units, the Lead Agency should include this information in the disclosure form);
- Identify, provide, and disclose any ongoing cost sharing strategies, if any, for the purchase and replacement of the enhanced filtration units;
- Set City-wide criteria for assessing progress in installing, replacing, and maintaining the enhanced filtration units; and
- Develop a City-wide process for evaluating the effectiveness of the enhanced filtration units at the Proposed Project.

### **Alternatives**

If the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Program EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

### **Permits**

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the Program EIR. For more information on permits, please visit South Coast AQMD's webpage at: <http://www.aqmd.gov/home/permits>. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

### **Data Sources**

South Coast AQMD rules and relevant air quality reports and data are available by calling the South Coast AQMD's Public Information Center at (909) 396-2001. Much of the information available through the Public Information Center is also available via the South Coast AQMD's webpage (<http://www.aqmd.gov>).

South Coast AQMD staff is available to work with the Lead Agency to ensure that project's air quality impacts are accurately evaluated and mitigated where feasible. Please contact me at [lsun@aqmd.gov](mailto:lsun@aqmd.gov), should you have any questions.

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

LS

RVC200310-01

Control Number

ATKINSON, ANDELSON, LOYA, RUUD & ROMO

A PROFESSIONAL LAW CORPORATION

ATTORNEYS AT LAW

20 PACIFICA, SUITE 1100  
IRVINE, CALIFORNIA 92618-3371  
(949) 453-4260

FAX (949) 453-4262  
WWW.AALRR.COM

PLEASANTON  
(925) 227-9200

RIVERSIDE  
(951) 683-1122

SACRAMENTO  
(916) 923-1200

SAN DIEGO  
(858) 485-9526

OUR FILE NUMBER:

CERRITOS  
(562) 653-3200

FRESNO  
(559) 225-6700

MARIN  
(628) 234-6200

PASADENA  
(626) 583-8600

Nicolle.Falcis@aalrr.com  
(949) 453-4289

March 17, 2020

**VIA OVERNIGHT MAIL**

**RECEIVED**

MAR 18 2020

CITY OF MORENO VALLEY  
Planning Division

Ms. Patty Nevins  
Planning Official - Community Development  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, California 92553-9014

**Re: Notice of Preparation of the Moreno Valley Unified School District's 2020 School Facilities Needs Analysis**

Dear Ms. Nevins:

Our firm represents the Moreno Valley Unified School District ("District") regarding its School Facilities Needs Analysis ("SFNA"). Please be advised that the District is in the process of preparing for adoption its 2020 SFNA and alternative school fee amounts applicable to new residential construction with the District, pursuant to Education Code § 17620 and Government Code §§ 65995.5, 65995.6, and 65995.7 ("Alternative School Fees").

Government Code § 65352.2 provides that the District shall notify applicable cities and/or counties of the preparation of a SFNA and provide the opportunity for such entities to meet with the District, if they so desire, prior to the completion of the SFNA. Hence, the District hereby provides notice that it is anticipated that the 2020 SFNA will be considered by the Board of Education ("Board") on May 19, 2020 or at a Board meeting scheduled shortly thereafter. A final draft of the 2020 SFNA has not yet been completed. However, when it has been completed, a copy will be provided for review. In the interim, we are enclosing a copy of the 2019 SFNA as the currently relevant and available information regarding this matter.

Also, in compliance with Government Code § 65352.2, the District is available to meet to discuss such matters relating to the coordination of future school facilities within the District, if desired, provided you notify the District of your request to attend such a meeting. ***If a meeting is desired, please provide times of your availability within the next two weeks for a meeting at the District, located at 25634 Alessandro Boulevard, California.***

ATKINSON, ANDELSON, LOYA, RUUD & ROMO

Ms. Patty Nevins  
March 17, 2020  
Page 2

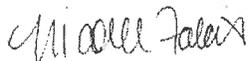
Please contact Ms. Susana Lopez, Chief Business Official for the District, at (951) 571-7500 ext. 17241 at your earliest convenience to confirm your interest in attending a meeting, or to indicate that such a meeting is not desired. If confirmation is not received by **Wednesday, April 1, 2020**, the District will assume that such a meeting is not being requested.

As previously set forth, the District plans to complete its 2020 SFNA pursuant to applicable law for presentation to its Board on May 19, 2020 or at a Board meeting scheduled shortly thereafter. The consultant preparing the 2020 SFNA is Ms. Barbara Hale-Carter of Special District Financing & Administration, who can be reached at (760) 233-2630.

Thank you and please do not hesitate to contact the undersigned if you have any questions or comments.

Very truly yours,

ATKINSON, ANDELSON, LOYA, RUUD & ROMO



Nicolle A. Falcis

Enclosure

cc: Susana Lopez, Moreno Valley Unified School District (w/o enclosure)  
Amy Esquibel, Moreno Valley Unified School District (w/o enclosure)  
Barbara Hale-Carter, Special District Financing & Administration (w/o enclosure)  
Jacqueline Donnelly, Special District Financing & Administration (w/o enclosure)

# S DFA

---

## School Facilities Needs Analysis

---

Moreno Valley Unified School District

---

May 3, 2019

---

School Facilities Needs Analysis as provided for in  
Government Code Section 65995 *et seq.*

---

**Moreno Valley Unified School District**  
25634 Alessandro Boulevard  
Moreno Valley CA 92553-4306  
Tel: 951-571-7500 ext. 17241  
Contact: Mike Reynolds – Interim Chief Business Official

---

**SPECIAL DISTRICT FINANCING & ADMINISTRATION**  
437 West Grand Avenue  
Escondido CA 92025  
760.233.2630 Fax 233.2631

# Table of Contents

---

## School Facilities Needs Analysis

Executive Summary.....	1
Introduction .....	3
Senate Bill 50.....	3
School Fees Created by SB-50.....	4
Statutory School Fees (Level I Fees).....	4
Alternative School Fee (Level II Fee).....	4
Alternative School Fee (Level III Fee).....	5
Reconstruction/Redevelopment.....	6
New Development Fiscal Impact.....	8
School Costs.....	8
District Student Generation.....	9
Cost per Dwelling Unit.....	10
Satisfaction of the Requirements to Levy Alternative Fees.....	11
Timely Application.....	11
Satisfaction of 2 of 4 Statutory Requirements.....	11
Alternative Fee (Level II).....	13
Projected Enrollment from New Homes in the Next Five Years.....	13
District Capacity.....	15
Projected Unhoused Students.....	16
Maximum New Construction Grant.....	17
Local Funds.....	22
Total New Construction Grant.....	22

**Table of Contents Continued**

The Level II Fee .....23

Alternative Fee (Level III)..... 25

    Application of the Level III Fee .....25

    Calculation of the Level III Fee .....25

    Reimbursement Elections.....26

Adoption of the School Facilities Needs Analysis and Implementation of the Alternative Fees ..... 27

Section 66000 of the Government Code ..... 28

**Appendices:**

Appendix A: School Costs

Appendix B: State Allocation Board Forms

Appendix C: Updated Existing School Building Capacity

Appendix D: Student Enrollment

Appendix E: Student Generation Rates..... 1

    Methodology ..... 1

    Student Database ..... 1

    County of Riverside..... 1

    Students Transferring Out of the District..... 2

    Students Generated from Dwelling Units Constructed in the Last Five-Year Period ..... 2

    Generation Rates for Single Family Attached Dwelling Units ..... 3

Appendix F: Development Projections ..... 1

    Local Agencies..... 1

    Governmental Agencies ..... 2

    Final Development Projections..... 2

**Table of Contents Continued**

Appendix G: Local Funds ..... 1

    Surplus Property ..... 1

    Projected Enrollment Housed in Current Excess Capacity ..... 2

    Local Sources Other Than Fees, etc., on Residential Construction ..... 3

    General Obligation Bond Funds..... 3

    Certificates of Participation ..... 3

    Developer Fees ..... 3

    State Funds ..... 4

    Use of Identified Local Funds ..... 4

## Executive Summary

On November 3, 1998, California voters approved Proposition 1A, the Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998. Such passage was a precedent to the enactment of Government Code Sections 65995.5, 65995.6, and 65995.7. Prior to the passage of Proposition 1A, school districts relied on the Statutory Fee provided in Assembly Bill 2926 (School Fee Legislation) which was adopted in 1986, as well as certain court decisions (i.e., Mira-Hart-Murrieta) requiring that under certain circumstances new development reasonably mitigate its impact on school facilities. In a post-Proposition 1A environment, the Statutory Fee contained in the School Fee Legislation remains, and mitigation requirements not embodied in a mitigation agreement but set forth in conditions of approval remained enforceable until January 1, 2000. These non-contractual requirements have been replaced by Alternative Fees – sometimes referred to as Level II and Level III Fees as to new residential construction. The Statutory Fee is referred to in these circumstances as Level I Fees applicable to new residential construction and certain other residential construction, as well as commercial/industrial fees to commercial and industrial development.

The purpose of a School Facilities Needs Analysis (“SFNA”) is to quantify, for the next five-year period, the impacts of new residential development on the school district’s facilities and calculate the permissible Level II and Level III Fees. Using a statutorily prescribed methodology, the SFNA requires using a state mandated “per pupil” grant, a limited sampling for determining student generation and does not provide for funding of interim facilities or central administration and support. Because of the prescribed methodology, the Level II and Level III Fees do not correspond to the true impact on school facilities. School districts must calculate and review the true cost of school facilities for planning purposes. The Moreno Valley Unified School District (“MVUSD” or “District”) adopted the MVUSD Master Plan, as defined herein, which provides a comprehensive review. The MVUSD Master Plan is on file in the District office and is herein incorporated.

In recognition of the impact on school facilities from new development, the District and the development community previously have entered into various mitigation agreements in order to seek to ensure the timely construction of school facilities to house students from new development (“Mitigated Development”). These Mitigated Developments have been excluded from the projections contained within this SFNA as they are providing funding and support to the District’s school facilities program and will not generate “Unhoused Students.”

A district notifies the cities and county of the SFNA and provides relevant and available information relating to the expansion of existing school sites or the necessity to acquire additional school sites, including notice of a proposed meeting to discuss this information. The governing board must adopt the SFNA by resolution at a public hearing after the report has been made available to the public for a period of not less than 30 days. Also, the district must give notice to any applicable cities or counties in accordance with Government Code Section 65352.2. Prior to the adoption of the SFNA, the public is given the opportunity to review and comment and the governing board must respond to written comments it receives. The Level II and Level III Fees must be adopted by a

resolution of the governing board as part of the adoption of the SFNA. The Alternative Fees are effective immediately after adoption of the resolution per Government Code Section 65995.6(f) and may not be in effect for more than one year.

On July 17, 2018 the Moreno Valley Unified School District Board of Education adopted Resolution No. 2018-19-01. This action put into effect a Level II Fee of \$4.59 per square foot of assessable space and a Level III Fee of \$9.17 per square foot of assessable space. These fees remain in effect through July 17, 2019 unless a new SFNA is adopted earlier.

The following SFNA was prepared in compliance with Government Code Section 65995, *et seq.* and provides the determination of eligibility for, and the calculation of a revised Level II Fee of \$4.64 and a revised Level III Fee of \$9.29. If adopted, these Alternative Fees are effective for not more than one year and must be substantiated and adopted on a yearly basis.

---

# Moreno Valley Unified School District

This SFNA has been prepared in accordance with applicable law including Section 65995, *et seq.* of the California Government Code.

---

## Introduction

A SFNA is prepared and adopted by the governing board of a school district to determine the need for new school facilities to house pupils that are attributed to projected enrollment growth from the development of new residential units over the next five years. The analysis takes into account current capacity, surplus property, and dedicated local funding sources among other things.

A SFNA is required to be adopted by resolution at a public hearing after it has been made available to the public for a period of not less than 30 days. The Alternative Fees (Level II or Level III, discussed herein) are adopted by a resolution of the governing board as part of the adoption of the SFNA. The Alternative Fees authorized by the resolution take effect immediately and are in effect for a maximum of one year.

---

## Senate Bill 50

On November 3, 1998, California voters approved Proposition 1A, the Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998. The passage of Proposition 1A authorized \$9.2 billion in State bonds for K-12 and higher education school facilities construction and modernization. Of this amount, \$2.9 billion was allocated for new construction for grades K-12.

The approval of Proposition 1A activated the provisions of Government Code Sections 65995.5, 65995.6, and 65995.7. The new program, known as the School Facilities Program ("SFP"), established a State program to provide State per pupil funding for new construction and modernization of existing school facilities. Additional funds have been provided by the subsequent voter approval of bonds for the funding of the SFP. The SFP requires the State to provide an estimated 50% of the funds required for new school projects ("Regular Grant") matched by 50% funding from local funds ("Local Match"). Questions have been raised regarding the adequacy of the Regular Grant to fund 50% of the cost of new construction. The intent is that the Regular Grant, together with the payment of either Statutory School Fees or Alternative Fees, both discussed herein, are all that will be available for all necessary school facilities absent other local funds. No

consideration was given in the State funding of the Regular Grant for interim facilities or central administration and support facilities.

---

### **School Fees Created by SB-50**

---

The following school fees were created by Education Code Section 17620 as well as Government Code Sections 65995.5, 65995.6, and 65995.7.

---

#### ***Statutory School Fees (Level I Fees)***

---

Under the SFP, Statutory School Fees collected pursuant to Education Code Section 17620 and Government Code Section 65995, also referred to as Level I Fees, and Commercial / Industrial Fees, respectively, remain. Currently, they are \$3.79 per square foot of assessable space for residential construction and \$0.61 per square foot of new chargeable covered and enclosed space for Commercial / Industrial construction. Both fees may increase in the year 2020, and every two years thereafter, according to an inflation adjustment determined by the State Allocation Board ("SAB").

---

#### ***Alternative School Fee (Level II Fee)***

---

Level II Fees are calculated pursuant to Government Code Section 65995.5(c) and in general can be described as the number of unhoused students identified in the SFNA, multiplied by the Regular Grant amount per pupil, plus 50% of the sum of site acquisition and development costs, less surplus property or proceeds thereof, if any and if applicable, less local funds available and dedicated for such facilities construction, divided by the projected total square footage of residential units anticipated to be constructed during the next five years.

Requirements to collect the Level II Fee are as follows:

- The governing board must make a "timely application" to the SAB for new construction funding for which it is eligible and the SAB must determine that the District meets the eligibility requirements for new construction funding as set forth in Education Code Sections 17071.10 and 17071.75. The school district is deemed eligible by default if the SAB fails to notify the school district within 120 days of receipt of the application.
- The school district must satisfy at least two of four eligibility requirements per Government Code Section 65995.5(b)(3). These requirements are summarized as follows:
  1. The school district meets the Multi-Track Year Round Education (MTYRE) Requirement.
  2. The school district has placed a local bond measure on the ballot in the past 4 years which received at least 50% plus 1 of the votes.
  3. The school district meets one of the following criteria:

- a. The school district has issued debt or incurred obligations for capital outlay equal to 15% of local bonding capacity including indebtedness repaid from:
  - i. property taxes,
  - ii. parcel taxes,
  - iii. the school district's general fund,
  - iv. special taxes approved by a two-thirds vote of the qualified electors pursuant to Article XIII A Section 4 of the California Constitution,
  - v. special taxes levied pursuant to the Mello-Roos Community Facilities District Act of 1982 that are approved by a vote of registered voters,
  - vi. special taxes levied pursuant to the Mello-Roos Community Facilities District Act of 1982 that are approved by a vote of the landowners **prior** to November 4, 1998,
  - vii. revenues received pursuant to the Community Redevelopment Law (i.e., pass-through funds, tax increment funds), or;
- b. The school district has issued debt or incurred obligations for capital outlay equal to 30% of local bonding capacity including indebtedness repaid from:
  - i. property taxes,
  - ii. parcel taxes,
  - iii. the school district's general fund,
  - iv. special taxes approved by a two-thirds vote of the qualified electors pursuant to Article XIII A Section 4 of the California Constitution,
  - v. special taxes levied pursuant to the Mello-Roos Community Facilities District Act of 1982 that are approved by a vote of registered voters,
  - vi. special taxes levied pursuant to the Mello-Roos Community Facilities District Act of 1982 that are approved by a vote of the landowners **after** November 4, 1998,
  - vii. revenues received pursuant to the Community Redevelopment Law (i.e., pass-through funds, tax increment funds).

- 4. At least 20% of teaching stations per Education Code Section 17071.25 within the school district are relocatable classrooms.

---



---

***Alternative School Fee (Level III Fee)***

---

The calculation of the Level III Fee is performed pursuant to Government Code Section 65995.7(a) and is roughly double the Level II Fee plus the full amount of surplus property or proceeds therefrom, if any, plus the full amount of local funds dedicated by the school district to provide school facilities to accommodate students generated from new growth, including any commercial and industrial fees collected and dedicated for such purposes.

The requirements to levy the Level III Fee are generally as follows:

- State Funding is not available per Government Code Section 65995.7(a).
- The school district has adopted an SFNA pursuant to Government Code Section 65995.5.

The Level III Fee has a reimbursement provision which is detailed in Government Code Sections 65995.7(b), (c) and (d). In general, there are two types of reimbursement elections. The first is a Statutory Reimbursement, which is the difference between the Level II Fee and the Level III Fee, less any amount expended for interim facilities. The alternative, in the sole discretion of the school district, is a Negotiated Reimbursement in which the Negotiated Reimbursement is mutually agreed to by both the school district and the party paying the Level III Fee. If the school district fails to offer a reimbursement election or enter into an alternative reimbursement agreement, the amount of State funding subsequently received shall be reduced by the difference between the Level II Fee and the Level III Fee, to the extent provided by applicable law.

---

---

### ***Reconstruction/Redevelopment***

---

Reconstruction/Redevelopment means the voluntary demolition of existing residential dwelling units or commercial or industrial construction and the subsequent construction of new development ("Reconstruction").

The District anticipates Reconstruction projects, more specifically, the demolishing of existing residential dwelling units replaced with new residential dwelling units, within the next five-year period. In such a situation, the District may levy school fees authorized pursuant to Education Code Section 17620 and Government Code Section 65995 *et seq.* ("School Fees") if there is a nexus established between the impacts of the new residential dwelling units after taking into consideration the impact from the prior residential units. In other words, the School Fees must bear a nexus to the burden caused by the Reconstruction project.

The purpose of this section is to set forth a general policy for the levy of School Fees on future Reconstruction projects within the District. The District may levy the applicable Alternative School Fees if an unmitigated impact exists once an analysis has been done on the impact on school facilities from such new residential dwelling units and consideration has been taken as to the impact from pre-existing units.

The analysis will include a review as to whether the Reconstruction project results in an additional impact to the District. This will be analyzed by comparing the square footage and projected number of students and costs generated from the existing residential dwelling units or commercial or industrial structure to the proposed square footage and number of students and costs projected from the new dwelling units using applicable student generation rates determined in this Report and as shown in Table 2.

School Fees will be assessed only to the extent of the actual cost of the school facilities impact as determined above, but in no event will the School Fees assessed be greater than the applicable Alternative School Fees. The District will complete a detailed analysis utilizing the above-mentioned criteria to determine the applicability of School Fees to each Reconstruction project presented to the District.

# Moreno Valley Unified School District

## New Development Fiscal Impact

Regardless of facilities funding sources, each school district must regularly monitor current capacity, current and projected enrollment and the resulting timing of future facilities needs. These facilities needs are guided by board policy, district standards and community interaction. Ultimately, these facilities needs are controlled by their funding.

While working within the SFP, it is critical that a school district keep in mind the cost of new facilities and the district-wide student generation rate. These figures allow a school district to accurately and comprehensively plan future facilities. This section calculates these actual figures for the District.

## School Costs

Appendix A contains a school facilities cost breakdown for each school level. These cost estimates were provided by the District and reviewed by an architectural firm for the District. Land cost was based upon a recent land acquisition by the District. It should be noted that these costs do not include administration and support facilities, nor do they include start-up costs associated with opening a school such as library books, landscaping, or the complete cost of technology. The total cost per school level is shown below:

School Level	Total Cost	Number of Students Housed (School Capacity)	Cost per Student
Elementary	\$41,538,546	800	\$51,923
Middle	\$84,573,627	1,200	\$70,478
High	\$236,070,023	2,500	\$94,428

The above table also shows school capacity at each school level. Capacity was calculated by using the current prescribed state loading factors. The division of school cost by school capacity results in a cost per student per school type. The sum of the cost per student for each school type is the total cost per student.

---

***District Student Generation***

---

District-wide student generation is calculated by dividing the total number of students by the total number of dwelling units within the District. The source for the total number of students was the October 3, 2018 Preliminary CBEDS Enrollment Report, a summary of which is contained in Appendix D. The enrollment total was 32,774 students.

The total number of dwelling units within the District boundaries was determined through the analysis of data provided by the Southern California Association of Governments ("SCAG"), as adjusted by request of the City of Riverside for the area of the District covered by the City of Riverside. By using the SCAG provided data which showed, by census tract, the number of households within the District in 2012, and adding the dwelling units which received a Certificate of Compliance by the District to allow the issuance of a building permit, the number of dwelling units existing as of January 1, 2019 can be determined. This figure is 48,723 (47,338 as of January 1, 2012 and 2,796 Certificates of Compliance issued) households existing as of January 1, 2019. Boundaries of the census tracts that overlap the boundaries of the District were reviewed by SCAG and the figures used were adjusted for such overlap. The data provided by SCAG, as well as the SCAG data as adjusted by request of the City of Riverside, is contained within Appendix F.

The following table shows the calculation of the District-Wide Student Generation Rate.

<b>Table 2 Calculation of Estimated Average District-Wide Student Generation</b>			
Grades	Number of Students	Number of Dwelling Units	District-Wide Student Generation
K – 5	14,988	48,723	0.3076
6 – 8	7,818	48,723	0.1605
9 – 12	9,968	48,723	0.2046
<b>TOTAL</b>	<b>32,774</b>	<b>48,723</b>	<b>0.6727</b>

---

**Cost per Dwelling Unit**

---

The Estimated Average Cost per Student at each school level, calculated in Table 1, times the Estimated Average District-Wide Student Generation Rate for each school level, calculated in Table 2 above, provides the Estimated Average True Cost per Dwelling Unit. This calculation is shown below:

<b>Table 3</b>			
<b>Estimated Average True Cost per Dwelling Unit</b>			
School Type	Cost per Student	District-Wide Student Generation	True Cost per Dwelling Unit
Elementary	\$51,923	0.3076	\$15,971.51
Middle	\$70,478	0.1605	\$11,311.72
High	\$94,428	0.2046	\$19,319.97
<b>Total</b>		<b>0.6727</b>	<b>\$46,603.20</b>

This Estimated Average True Cost per Dwelling Unit figure of \$46,603.20 is a blended figure used to calculate and track the estimated average true impact of development on the grades K-12 school facilities of the District. As identified on page 17, Table 10, no additional middle school facilities are required for the next five-year period and as shown on page 22, Table 17, there are no high school site acquisition costs for the next five-year period. As such, the total True Cost per Dwelling Unit identified in Table 3 above reduced by the True Cost per Dwelling Unit for middle school facilities and by an adjusted True Cost per Dwelling Unit for high school facilities can be used to identify the True Cost per Dwelling Unit for the next five-year period ( $\$46,603.20 - \$11,311.72 - \$639.63 = \$34,651.85$ ). Dividing this figure by the weighted average square footage of assessable space for single-family detached, single-family attached and multi-family attached dwelling units, projected to be built within the next five-year period within the District, of 1,335 square feet of assessable space, computes to a cost per square foot of \$25.96. The basis of the average square footage per dwelling unit is shown in Table 20.

---

## **Moreno Valley Unified School District**

---

### **Satisfaction of the Requirements to Levy Alternative Fees**

---

---

#### ***Timely Application***

---

The first requirement set forth in Education Code Section 17071.10 and Section 17071.75, is that the governing board make a “timely application” to the SAB and be deemed eligible.

The Board of Education of the Moreno Valley Unified School District previously adopted the required resolution requesting an eligibility determination by the State Allocation Board. This resolution stated the District’s desire to apply for funding under the new School Facilities Program.

District staff completed the required forms and transmitted the same to the SAB on January 25, 1999. These forms have been updated and resubmitted to the SAB. A copy of the most recently updated SAB 50-01 form is contained within Appendix B. The District was originally deemed eligible on August 25, 1999.

---

#### ***Satisfaction of 2 of 4 Statutory Requirements***

---

A school district must satisfy at least two of the four requirements per Government Code Section 65995.5(b)(3). These requirements were summarized in Section One of this Report and apply to the District as follows:

<b>Table 4</b>	
<b>Statutory Requirements for Adoption of Alternative Fees</b>	
<b>Apply</b>	<b>Description</b>
	Multi-Track Year Round Education (MTYRE) Requirement.
	A local bond measure on the ballot in the past 4 years which received at least 50% plus 1 of the votes.
<b>X</b>	The District has issued debt or incurred obligations for capital outlay equal to 15% or 30%, as required, of local bonding capacity.
<b>X</b>	At least 20% of teaching stations per Education Code Section 17071.25 within the district are relocatable classrooms.

Further details as to the two eligibility requirements that the District elects to specify it has met are as follows:

- For the 2018/19 tax year, the total assessed value for the District, as reported by the Riverside County Assessor, was \$14,853,016,107. The outstanding principal as of July 1, 2018 of Community Facilities District Bonds was \$95,640,000, Certificates of Participation was \$9,900,000 and \$125,699,483 for General Obligation Bonds. The sum of the outstanding principals as of July 1, 2018 was \$231,239,483. For a unified school district, the bonding capacity is calculated at 2.5% of the total assessed value. The bonding capacity for the District is \$371,325,403. The District is currently at 62.27% (\$231,239,483 divided by \$371,325,403) of its bonding capacity.
- For the 2018/19 school year the District determined and by approval of this SFNA is certifying that it is operating in excess of twenty percent (20%) of the teaching stations in relocatable classrooms per Education Code Section 17071.25. Of the 1,616 total teaching stations within the District, 454 are in relocatable classrooms. This equates to approximately 28% of the District's teaching stations being in relocatable classrooms. See Appendix C for more information.

## Moreno Valley Unified School District

### Alternative Fee (Level II)

The following section reflects the calculation of the Level II Fee.

#### *Projected Enrollment from New Homes in the Next Five Years*

Student generation for an SFNA is based, per Government Code Section 65995.6, on the historical student generation rates ("SGR") of new residential units constructed during the previous five years that are of a similar type of unit to those anticipated to be constructed either in the city or the county in which the District is located in the next five-year period. Based upon the prescribed criteria, the following SGR per housing type has been determined. A copy of the student generation rate analysis is contained within Appendix E.

<b>Housing Type</b>	<b>Elementary</b>	<b>Middle</b>	<b>High</b>	<b>Total*</b>
Single-Family Detached	0.2611	0.1448	0.1618	0.5677
Single-Family Attached	0.2622	0.1230	0.1148	0.5000
Multi-Family Attached	0.2364	0.1286	0.0954	0.4604

\* Note: May not sum due to rounding.

A projection was made of the residential units to be constructed in the next five years by housing type according to Government Code Section 65995.6. The projection was made by using and cross-checking independent sources as provided by applicable law. All data on development projections is contained within Appendix F. These sources are as follows:

- Local Agencies. Starting in March of 2019 contact was made with the City of Moreno Valley, the City of Riverside and the County of Riverside (collectively referred to as “Local Agencies”). Residential development and square footage by dwelling unit type projection letters were sent to the Local Agencies in March and April of 2019. Copies of such correspondence are contained as the final pages of Appendix F.
- Governmental Agencies. SCAG compiles residential development projections. As a cross-check on the information from Local Agencies as set forth herein, a review was made of the projections provided based on input from SCAG as to overlapping census tracts across the District boundaries. According to SCAG these Local Agencies concurred with the original projections released in April 2016, the most currently available update is contained in Appendix F.

The following table shows the summary of development projections by housing type. A copy of the analysis is contained within Appendix F and is shown in that Appendix on Table F-1.

<b>Table 6</b>			
<b>Five-Year Estimated Projection of Unmitigated Dwelling Units by Housing Type</b>			
<b>Single-Family Detached</b>	<b>Single-Family Attached</b>	<b>Multi-Family Attached</b>	<b>Total</b>
221	50	750	1,021

The combination of SGR by Housing Type (Table 5) and Projected Unmitigated Dwelling Units by Housing Type (Table 6) results in an estimate of the total number of projected students per housing type and school level generated from new homes in the next five-year period. This is shown below in Table 7.

<b>Table 7</b>				
<b>Estimated Projection of Enrollment from Unmitigated New Homes in the Next Five Years</b>				
<b>Housing Type</b>	<b>School Facility Type</b>			<b>Total</b>
	<b>Elementary</b>	<b>Middle</b>	<b>High</b>	
Single-Family Detached	58	32	36	126
Single-Family Attached	13	6	6	25
Multi-Family Attached	177	96	72	345
<b>Total</b>	<b>248</b>	<b>134</b>	<b>114</b>	<b>496</b>

<b><i>District Capacity</i></b>
---------------------------------

The District conducted a capacity analysis pursuant to Section 17071.25 of the Education Code. The process as contained in Section 17071.25 is shown below:

1. Identify by grade level all permanent teaching stations existing in the school district, or where appropriate, the attendance area. A “teaching station” is defined as, “any space that was constructed or reconstructed to serve as an area in which to provide pupil instruction, but shall not include portable buildings, except as provided in Section 17071.30.”
2. The assumed capacity of each teaching station pursuant to paragraph (1) is established as 25 pupils for each teaching station used for kindergarten or for grades 1 to 6 inclusively, and 27 pupils for each teaching station used for grades 7 to 12, inclusively.
3. The assumed capacity as specified in paragraph (2) is multiplied by the number of teaching stations calculated under paragraph (1).
4. The result of this computation represents the number of pupils housed by grade level in the existing school building capacity of the applicant school district.

Portable classrooms are not included in the calculation to the extent that they are:

- Leased from the state pursuant to the State Relocatable Classroom Act of 1979 (Section 17085).
- Portable classrooms, not used for interim housing on modernization projects, and which exceed twenty-five percent (25%) of the number of permanent classrooms available to the District.

- Leased not pursuant to Section 17085, but leased for a period of less than five years prior to the date of application.

This capacity was previously reported on the SAB 50-02 form and was recalculated for this SFNA as shown in Appendix C pursuant to Government Code Section 65995.6, which was amended by Assembly Bill 695 of the 1999 Legislative Session. The data is summarized in Table 8 below.

<b>Table 8 Capacity</b>	
<b>Type</b>	<b>Capacity</b>
Elementary (K-5)	14,390
Middle (6-8)	11,180
High (9-12)	10,609
Total	36,179

---

***Projected Unhoused Students***

---

Current excess capacity was determined and is shown on Table 9 below.

<b>Table 9 Excess Capacity</b>			
<b>Type</b>	<b>Current Capacity (October 2018)</b>	<b>Enrollment (October 2018)</b>	<b>Excess/(Deficit) Capacity (October 2018)</b>
Elementary (K-5)	14,390	14,988	(598)
Middle (6-8)	11,180	7,818	3,362
High (9-12)	10,609	9,968	641
Total	36,179	32,774	3,405

The excess seats identified in Table 9 for the middle and high school levels were evaluated as to the build out requirement of the District. According to SCAG (including modification provided by the City of Riverside) and as shown in Appendix F, the total number of dwelling units as of January 1, 2019 can be estimated by adding the number of dwelling units reported as existing on January 1, 2012 and adding the dwelling units

represented by Certificates of Compliance issued by the District as 48,723. As to a future date, SCAG (including modifications provided by the City of Riverside which provide projections to the year 2035) shows an estimated 66,735 dwelling units to exist in the year 2040. The difference of the existing units from the year 2040 provides an estimate of future dwelling units to the year 2040 of (66,735 – 48,723) 18,012 dwelling units.

The total future dwelling unit figure (18,012) was multiplied by the District-wide SGRs for each school level, as shown on Table 2, provides a future middle school student figure of 2,891 and a future high school student figure of 3,685. As shown in Table 7, 134 unmitigated middle school students and 114 unmitigated high school students have been projected for the next five-year period. Therefore it can be determined that 4.64% of the future middle school students and 3.09% of the future high school students will be generated from unmitigated homes in the next five years. As such, 4.64%, or 156 middle school seats of the 3,362 existing excess middle school seats have been used to lower the needs of middle school capacity for the next five-year period, bringing the projected unhoused middle school students to zero (0). And 3.09%, or 20 high school seats of the 641 existing excess high school seats have been used to lower the needs of high school capacity for the next five-year period.

The subtraction of excess allocated capacity as of October 2018 determined above from projected enrollment (Table 7) results in the number of unhoused students for each school level. This calculation is shown below in Table 10.

<b>Table 10</b>			
<b>Estimated Projection of Unmitigated Unhoused Students</b>			
<b>Type</b>	<b>Projected New Students</b>	<b>Allocated Excess Capacity (Deficit = Zero Capacity)</b>	<b>Unhoused Students</b>
Elementary (K-5)	248	0	248
Middle (6-8)	134	156	0
High (9-12)	114	20	94
<b>Total</b>	<b>496</b>	<b>176</b>	<b>342</b>

***Maximum New Construction Grant***

The total new construction grant is determined by multiplying the number of unhoused students calculated in Table 10 above by the per-pupil grant (“PPG”). The PPG is the sum of the base grant, the Automatic Fire Detection/Alarm System Grant (“ADG”), and the Automatic Sprinkler System Grant (“ASG”). Adding to the calculated total PPG amount is the addition of assistance for site development and acquisition.

Each January, beginning January 1999, the grant amounts may be adjusted per Education Code 17072.10(b). The SAB adopted the following adjusted grant amounts in January 2019.

The SAB adopted emergency amendments to Section 1859.76 – New Construction Additional Grant for Site Development Costs in June 2006, these additional grants have been extended and remain in effect. These amendments provide funding in two components. The first component is equaled a 6% increase to the base grant for elementary and middle schools and a 3.75% increase for high school. This component of the new General Site Grant is referenced herein as General Site Grant – Component 1, or GSG-C1. The second component, a new grant which provides for a new component to the cost of site development, set in 2006, was equal to 50 percent of \$26,112 per new, useable acre acquired for new construction. This component of the new General Site Grant is referenced herein as General Site Grant – Component 2, or GSG-C2. GSG-C2 was adjusted based upon the construction cost index at the January 2019 SAB meeting.

<b>Table 11 Current Per-Pupil Grant Amounts</b>			
<b>Level</b>	<b>Base Grant</b>	<b>ADG</b>	<b>ASG</b>
Elementary	\$12,197	\$15	\$205
Middle	\$12,901	\$20	\$243
High	\$16,415	\$33	\$253
Severe	\$34,274	\$61	\$646
Non-Severe	\$22,922	\$43	\$433

Pursuant to Section 1859.71.1 of the SAB Regulations, the new construction grant amount for all projected unhoused students with exceptional needs are calculated using the above shown PPG. Specifically, the current percentage of severely handicapped students and the current percentage of non-severely handicapped students to the total student population are determined. This percentage is applied to the Total Projected Unhoused Students to determine the number of Projected Unhoused Non-Severe Students and Projected Unhoused Severe Students in the next five-year period. The Projected Unhoused Non-Severe Students and Projected Unhoused Severe Students are allocated among the school levels based on the currently enrolled actual severe and non-severe students as shown in Appendix D. Each individual result is then multiplied by the PPG for the specified type of exceptional need. For the 2018/19 school year, MVUSD has 3.32% students with non-severe exceptional needs and 1.39% students with severe exceptional needs. The following table calculates the Projected Unhoused Students with exceptional needs.

Table 12 Projected Exceptional Needs Unhoused Students				
Type	Total Projected Unhoused Students	Projected Unhoused Non-Severe Students	Projected Unhoused Severe Students	Remaining Projected Unhoused Students
Elementary	248	4	2	242
Middle	0	0	0	0
High	94	4	3	87
<b>Total</b>	<b>342</b>	<b>8</b>	<b>5</b>	<b>329</b>

Calculation of the total new construction grant is shown in Table 13 below.

Table 13 Total New Construction Grant Amount						
	Elementary	Middle	High	Severe	Non-Severe	Total
Base Grant	\$12,197	\$12,901	\$16,415	\$34,274	\$22,922	
ADG	\$15	\$20	\$33	\$61	\$43	
ASG	\$205	\$243	\$253	\$646	\$433	
Subtotal Grant Amount	\$12,417	\$13,164	\$16,701	\$34,981	\$23,398	
Students	242	0	87	5	8	342
<b>Subtotal</b>	<b>\$3,004,914</b>	<b>\$0</b>	<b>\$1,452,987</b>	<b>\$174,905</b>	<b>\$187,184</b>	<b>\$4,819,990</b>
GSG-C1	\$745	\$790	\$626			
Students	248	0	94			342
<b>Subtotal</b>	<b>\$184,760</b>	<b>\$0</b>	<b>\$58,844</b>			<b>\$243,604</b>
<b>Total</b>	<b>\$3,189,674</b>	<b>\$0</b>	<b>\$1,511,831</b>	<b>\$174,905</b>	<b>\$187,184</b>	<b>\$5,063,594</b>

Site and development costs per Education Code 17072.12 may be added to the Total New Construction Grant if the following two conditions are met:

1. The amount of site acquisition and development assistance does not exceed 50% of the cost of site development to the school district, plus the lesser of 50% of the site cost to the school district or 50% of the appraised value of the site at the time the complete application is submitted, whichever is less; and
2. The school district certifies that there is no alternative available site, or that the district plans to sell an available site in order to use the proceeds of the sale for the purchase of a new site.

Government Code Section 65995.5(h) sets forth the procedures for determining eligible site acquisition and site development costs. Specifically, Section 65995.5(h) states that site acquisition costs shall not exceed one-half (1/2) of the amount determined by multiplying the land acreage by the estimated cost per acre as established in Education Code Section 17072.12.

The District, by the adoption hereof, certifies that the above two conditions have been met and has provided the following site acquisition costs and development costs per school level shown in Table 14 and Table 15. These costs are shown in Appendix A and were evaluated and determined in coordination with the District's consultants. Land cost was based upon a recent land acquisition by the District. Site size was determined by reference to the 1998 California Department of Education Site Determination Requirements Handbook for applicable school levels and loading projections and is reflected in Appendix A.

<b>Table 14</b>				
<b>Total Site Acquisition Cost per School Type</b>				
<b>Type</b>	<b>Site Cost*</b>	<b>Appraisal, Survey, Escrow Etc.**</b>	<b>Total Site and Additions Cost</b>	<b>50% of the Total Site and Additions Cost</b>
Elementary	\$1,258,362	\$50,334	\$1,308,696	\$654,348
Middle	\$2,696,490	\$107,860	\$2,804,350	\$1,402,175
High	\$5,872,356	\$234,894	\$6,107,250	\$3,053,625

\* Note: Site cost is equal to \$119,844 multiplied by 10.5 acres for elementary school, by 22.5 acres for middle school and by 49.0 acres for high school

\*\* Note: This amount is equal to 4% of the actual site cost but not less than \$50,000 per SAB Regulation 1859.74(a)(2).

Site development costs were taken from estimated school costs prepared by the District (See Appendix A).

<b>Table 15</b>					
<b>Total Site Development Cost per School Type</b>					
<b>Type</b>	<b>Service Site Cost Per School</b>	<b>Off-Site Cost Per School</b>	<b>Utility Cost Per School</b>	<b>GSG-C2* Per School</b>	<b>Total Site Development Cost**</b>
Elementary	\$1,535,660	\$840,000	\$280,000	\$208,457	\$1,536,287
Middle	\$3,640,000	\$2,240,000	\$1,008,000	\$446,693	\$3,890,693
High	\$18,697,694	\$3,803,430	\$4,862,200	\$972,797	\$14,654,459

\* Note: The GSG-C2 as of January 2019 is equal to \$19,853 multiplied by 10.5 acres for elementary school, 22.5 acres for middle school and 49.0 acres for high school.

\*\* Note: Total Site Development Cost per School is equal to 50% of the sum of service site, off-site and utility costs plus the total cost of the GSG-C2.

The site and development costs shown above in Table 14 and Table 15 are per school. The following table identifies the number of schools required by the projected number of unhoused students from new development in the next five years based on the SGRs set forth in Table 5.

<b>Table 16</b>			
<b>Number of Schools Required for Projected Unhoused Students from New Development</b>			
<b>School Type</b>	<b>Projected Unhoused Students</b>	<b>School Capacity</b>	<b>Number of Schools Required</b>
Elementary	248	800	0.31
Middle	0	1,200	0.00
High	94	2,500	0.04

The number of schools required to house the projected unhoused students from new development is multiplied by the site and development cost per school shown in Table 14 and Table 15 to determine the total site and development cost grant. This calculation is shown below in Table 17 and reflects the ownership of one District owned high school site. The site has not been improved and as such, development cost grants are calculated for the needs of the next five-year period.

<b>Table 17</b>					
<b>Calculation of the Site and Development Grant</b>					
<b>School Type</b>	<b>Site Acquisition Cost</b>	<b>Schools Required</b>	<b>Site Development Cost</b>	<b>Schools Required</b>	<b>Total Site and Development Grant</b>
Elementary	\$654,348	0.31	\$1,536,287	0.31	\$679,097
Middle	\$1,402,175	0.00	\$3,890,693	0.00	\$0
High	\$3,053,625	0.00	\$14,654,459	0.04	\$586,178
Total					\$1,265,275

The sum of the total site and development grant (Table 17), and the total PPG (Table 13) provides the basis for the maximum new construction grant for projected unhoused students from new development. This summation is shown in Table 18 below.

<b>Table 18</b>	
<b>Maximum New Construction Grant</b>	
Total Per-Pupil Grant	\$5,063,594
Site and Development Cost Allowance	\$1,265,275
Maximum New Construction Grant	\$6,328,869

---

***Local Funds***

---

An analysis of Local Funds is contained within Appendix G and details in Table G-2 the amount of local funds currently on deposit which can be utilized to lower the needs of the projected unhoused students in the next five-year period.

---

***Total New Construction Grant***

---

The total amount of local funds, if existent and dedicated to Unhoused Projected Students, is subtracted from the maximum new construction grant to determine the Total New Construction Grant. This amount is calculated in Table 19 below.

<b>Table 19</b> <b>Total New Construction Grant</b>	
Maximum New Construction Grant	\$6,328,869
Local Funds	\$0
<b>Total New Construction Grant</b>	<b>\$6,328,869</b>

***The Level II Fee***

The total new construction grant amount calculated above (per Government Code Section 65995.5(c)(3)) is divided by the projected total square footage of assessable space of new residential units anticipated to be constructed during the next five-year period. The City of Moreno Valley and the County of Riverside, as detailed in correspondence contained in Appendix F, provided a projection of average square footage by dwelling unit type based on currently processing projects. The City of Riverside confirmed a projection of no dwelling units for the next five-year period, as such average dwelling unit size by housing type was not provided or discussed. Correspondence to each agency is contained as the final pages of Appendix F. The projected total square footage is calculated as shown in Table 20 below.

<b>Table 20</b> <b>Calculation of Projected Total Square Feet of Assessable Space for the Next Five-Year Period</b>				
<b>Housing Type</b>	<b>Data Source for Average Home Size</b>	<b>Average Size Home</b>	<b>Projected Number of Units</b>	<b>Total Projected Square Feet of Assessable Space</b>
Single-Family Detached	City of Moreno Valley	2,497	210	524,370
	County of Riverside	1,200	11	13,200
Single-Family Attached	City of Moreno Valley	1,500	50	75,000
Multi-Family Attached	City of Moreno Valley	1,000	750	750,000
<b>Total</b>			<b>1,021</b>	<b>1,362,570</b>

Table 21 shows the division of the total new construction grant by the projected square feet of assessable space to be developed in the next five years. The result of this division represents the Level II Fee amount.

<b>Table 21</b>	
<b>Calculated Level II Fee per Square Foot of Assessable Space</b>	
Total New Construction Grant	\$6,328,869
Projected Square Feet of Assessable Space	1,362,570
Level II Fee	\$4.64

## Moreno Valley Unified School District

### Alternative Fee (Level III)

#### *Application of the Level III Fee*

Pursuant to Section 65995.7 of the Government Code, if State funds for new facility construction are not available, the governing board of a school district that has complied with Section 65995.5 may increase the Level II Fee to the Level III Fee. State funds are not available if the SAB is no longer approving apportionments for new construction due to a lack of funds available for new construction. Upon making a determination that State funds are no longer available, the SAB shall notify the Secretary of the Senate and the Chief Clerk of the Assembly, in writing, of that determination.

#### *Calculation of the Level III Fee*

The Level III Fee is the Level II Fee increased by an amount not to exceed the amount calculated pursuant to subdivision (c) of Section 65995.5, except that for the purpose of calculating this additional amount, the amount identified in paragraph (2) of subdivision (c) of Section 65995.5 is not subtracted from the amount determined pursuant to paragraph (1) of subdivision (c) of Section 65995.5. This calculation is shown in Table 22 below.

Total New Construction Grant	\$6,328,869
Maximum New Construction Grant	\$6,328,869
Total Level III New Construction Grant	\$12,657,738
Projected Square Feet of Assessable Space	1,362,570
Level III Fee	\$9.29

---

***Reimbursement Elections***

---

A governing board may offer a reimbursement election to the person subject to the Level III Fee that provides the person with the right to monetary reimbursement of an agreed portion of the difference between the Level III and the Level II Fee to the extent that the District receives funds from state sources for construction of the facilities for which that amount was required, less any amount expended by the district for interim housing. At the option of the person subject to the Level III Fee, if the school district elects to make reimbursement available, the reimbursement election may be made on a tract or lot basis. In accordance with Section 65995.7(b) of the Government Code, reimbursement shall be made within 30 days after such funding is received by the district.

A governing board may offer the person subject to the Level III Fee an opportunity to negotiate an alternative agreement.

A governing board may provide that the rights granted by the reimbursement election or the alternative reimbursement agreement are assignable.

If a school district fails to offer a reimbursement election or enter into an alternative reimbursement agreement, the amount of state funding subsequently received shall be reduced by the difference between the Level II Fee and the Level III Fee to the extent provided by applicable law.

---

## **Moreno Valley Unified School District**

---

### **Adoption of the School Facilities Needs Analysis and Implementation of the Alternative Fees**

---

A school district notifies the applicable cities and county of the SFNA and provides relevant and available information relating to the expansion of existing school sites or the necessity to acquire additional school sites, including notice of a proposed meeting to discuss this information in accordance with Government Code Section 65352.2. The governing board adopts the SFNA by resolution at a public hearing after the SFNA has been made available to the public for a period of not less than 30 days. In addition, during the public review period, the SFNA is provided to the local agencies responsible for land planning for their review and comment. Prior to the adoption of the SFNA, the public is given the opportunity to review and comment on the SFNA and the governing board must respond to written comments it receives.

Notice of the time and place of the hearing, including the location and procedure for viewing or requesting a copy of the proposed SFNA and any proposed revision must be published in at least one newspaper of general circulation within the jurisdiction of the school district not less than 30 days prior to the hearing. The governing board shall mail a copy of the SFNA and any proposed revision not less than 30 days prior to the hearing to any person who has made a written request at least 45 days prior to the hearing.

The SFNA may be revised at any time and the revision is subject to the same conditions and requirements applicable to the adoption of the SFNA.

The Level II and Level III Fees are adopted by a resolution of the governing board as a part of the adoption or revision of the SFNA and are effective for a maximum of one year. The Alternative Fees are effective immediately after adoption of the resolution per Government Code Section 65995.6(f). Upon adoption, the District files notices with any applicable City or County.

---

## Moreno Valley Unified School District

---

### Section 66000 of the Government Code

---

Sections 66000, *et. seq.* of the Government Code were enacted by the State of California in 1987. These Sections require that all public agencies satisfy the following requirements when establishing, increasing or imposing a fee, such as the Alternative Fees described herein, as a condition of approval for the a development project.

1. Determine the purpose of the fee.
2. Identify the facilities to which the fee will be applied.
3. Determine that there is a reasonable relationship between the need for public facilities and the type of development on which the fee is imposed.
4. Determine that there is a reasonable relationship between the amount of the fee and the public facility or portion of the public facility attributable to the development on which the fee is imposed.
5. Provide an annual accounting of any portion of the fee remaining unexpended or uncommitted in the school district's accounts five (5) or more years after it was collected.

This SFNA and the information included in the Appendices hereto establishes that the Alternative Fees meet the requirements of Section 66000, *et seq.* and such a determination by the District as part of adopting the Alternative Fees is justified and appropriate. By way of summary, the Alternative Fees will be used to fund in part the school facilities collectively identified in the "2013-14 Facilities Master Plan" dated November 12, 2013 ("MVUSD Master Plan") adopted by the District and (i) new school facilities, (ii) expansion of existing school facilities and (iii) other upgrades to existing school facilities, but only to the extent that such items are needed to accommodate the projected unhoused students and to the extent that the use of the Alternative Fees on such items is permitted by applicable law.

Additional new residential development in the District will generate additional students who will require the District to provide additional school facilities. The amount to be included in the Alternative Fees is specified by statute or direction is given by statute as to the costs permissible to include. The Level II Fee of \$4.64 per square foot and the Level III Fee of \$9.29 per square foot are justified in this Report. The estimated average cost to the District per square foot as calculated on Page 10 is \$25.96 per square foot.

As the school facilities cost impacts per square foot of new residential construction are greater than the Alternative Fees, it is reasonable for the District to determine that the Alternative Fees of \$4.64 per square foot and \$9.29 per square foot for Level II and Level III, respectively, are roughly proportional and reasonably related to the impacts caused by new residential development on the District.

**APPENDIX A  
SCHOOL COSTS  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
May 2019**

**MORENO VALLEY UNIFIED SCHOOL DISTRICT  
SUMMARY OF ESTIMATED COSTS  
ELEMENTARY SCHOOL**

<b>A. SITE</b>		
1	Purchase Price of Property	\$ 1,258,361
	Acres: 10.5	
	Cost/Acre*: \$ 119,844	
2	EIR/CEQA	\$ 80,000
3	Appraisals (Prelim, Update, Final)	\$ 25,000
4	Escrow/Title	\$ 16,000
5	Surveys (geo-hazard, phase-1/PEA, topo)	\$ 121,000
6	Relocation	\$ -
7	Legal	\$ 50,000
	Total	<b>\$ 1,550,361</b>

\* Assumes an Unimproved Site and Net Useable Acres

<b>B. PLANS (% of Construction)</b>		
1	Architect's Fee	\$ 1,751,347
2	Preliminary Tests (1%)	\$ 326,671
3	DSA/CDE Plan Check (2%)	\$ 653,342
4	Environmental Fee Analysis (0.3%)	\$ 98,001
5	Duplicating/Advertising Costs (0.1%)	\$ 32,667
6	Other (0.2%)	\$ 65,334
	Total	<b>\$ 2,927,362</b>

<b>C. CONSTRUCTION</b>		
1	Construction (\$450 per sqft x 75 sqft per student)	\$ 27,000,000
2	Utility Services	\$ 280,000
3	Off-Site Development	\$ 840,000
4	Service Site Development	\$ 1,535,660
5	General Conditions	\$ 1,285,272
6	Technology	\$ 336,000
7	Unconventional Energy	\$ -
8	Other/Deferred Items (CM, PM, etc. )	\$ 1,390,166
	Total	<b>\$ 32,667,098</b>

<b>D. TEST (1% of Item C)</b>	<b>\$ 326,670.98</b>
-------------------------------	----------------------

<b>E. INSPECTION (1.2% of Item C)</b>	<b>\$ 392,005.18</b>
---------------------------------------	----------------------

<b>F. FURNITURE AND EQUIPMENT (6.25% of Item C)</b>	<b>\$ 2,041,694</b>
---	---------------------

<b>G. CONTINGENCY (5% of Item C)</b>	<b>\$ 1,633,355</b>
--------------------------------------	---------------------

**TOTAL ESTIMATED COST** **\$ 41,538,546**

Projected Number of Students	800
Facilities Cost Per Student	<b>\$ 51,923</b>

NOTE: Total may not sum due to rounding.

**MORENO VALLEY UNIFIED SCHOOL DISTRICT  
SUMMARY OF ESTIMATED COSTS  
MIDDLE SCHOOL**

<b>A. SITE</b>		
1	Purchase Price of Property	\$ 2,996,098
	Acres: 25	
	Cost/Acre*: \$ 119,844	
2	EIR/CEQA	\$ 150,000
3	Appraisals (Prelim, Update, Final)	\$ 22,000
4	Escrow/Title	\$ 20,000
5	Surveys (geo-hazard, phase-1/PEA, topo)	\$ 180,000
6	Relocation	\$ -
7	Legal	\$ 50,000
	Total	<b>\$ 3,418,098</b>

\* Assumes an Unimproved Site and Net Useable Acres

<b>B. PLANS (% of Construction)</b>		
1	Architect's Fee	\$ 3,373,300
2	Preliminary Tests (1%)	\$ 664,521
3	DSA/CDE Plan Check (2%)	\$ 1,329,043
4	Environmental Fee Analysis (0.3%)	\$ 199,356
5	Duplicating/Advertising Costs (0.1%)	\$ 66,452
6	Other (0.2%)	\$ 132,904
	Total	<b>\$ 5,765,577</b>

<b>C. CONSTRUCTION</b>		
1	Construction (\$450 per sqft x 100 sqft per student)	\$ 54,000,000
2	Utility Services	\$ 1,008,000
3	Off-Site Development	\$ 2,240,000
4	Service Site Development	\$ 3,640,000
5	General Conditions	\$ 2,156,000
6	Technology	\$ 672,000
7	Unconventional Energy	\$ -
8	Other/Deferred Items (CM, PM, etc. )	\$ 2,736,140
	Total	<b>\$ 66,452,140</b>

<b>D. TEST (1% of Item C)</b>	<b>\$ 664,521</b>
-------------------------------	-------------------

<b>E. INSPECTION (1.2% of Item C)</b>	<b>\$ 797,426</b>
---------------------------------------	-------------------

<b>F. FURNITURE AND EQUIPMENT (6.25% of Item C)</b>	<b>\$ 4,153,259</b>
---	---------------------

<b>G. CONTINGENCY (5% of Item C)</b>	<b>\$ 3,322,607</b>
--------------------------------------	---------------------

**TOTAL ESTIMATED COST** **\$ 84,573,627**

Projected Number of Students 1,200  
Facilities Cost Per Student **\$ 70,478**

NOTE: Total may not sum due to rounding.

**MORENO VALLEY UNIFIED SCHOOL DISTRICT  
SUMMARY OF ESTIMATED COSTS  
HIGH SCHOOL**

<b>A. SITE</b>		
1	Purchase Price of Property	\$ 7,190,634
	Acres: 60	
	Cost/Acre*: \$ 119,844	
2	EIR/CEQA	\$ 300,000
3	Appraisals (Prelim, Update, Final)	\$ 50,000
4	Escrow/Title	\$ 25,000
5	Surveys (geo-hazard, phase-1/PEA, topo)	\$ 200,000
6	Relocation	\$ -
7	Legal	\$ 50,000
Total		<b>\$ 7,815,634</b>

\* Assumes an Unimproved Site and Net Useable Acres

<b>B. PLANS (% of Construction)</b>		
1	Architect's Fee	\$ 9,237,250
2	Preliminary Tests (1%)	\$ 1,863,183
3	DSA/CDE Plan Check (2%)	\$ 3,726,366
4	Environmental Fee Analysis (0.3%)	\$ 558,955
5	Duplicating/Advertising Costs (0.1%)	\$ 186,318
6	Other (0.2%)	\$ 372,637
Total		<b>\$ 15,944,708</b>

<b>C. CONSTRUCTION</b>		
1	Construction (\$450 per sqft x 125 sqft per student)	\$ 140,625,000
2	Utility Services	\$ 4,862,200
3	Off-Site Development	\$ 3,803,430
4	Service Site Development	\$ 18,697,694
5	General Conditions	\$ 5,502,673
6	Technology	\$ 1,680,000
7	Unconventional Energy	\$ 5,824,000
8	Other/Deferred Items (CM, PM, etc.)	\$ 5,323,283
Total		<b>\$ 186,318,281</b>

<b>D. TEST (1.5% of Item C)</b>	<b>\$ 2,794,774</b>
---------------------------------	---------------------

<b>E. INSPECTION (1.2% of Item C)</b>	<b>\$ 2,235,819</b>
---------------------------------------	---------------------

<b>F. FURNITURE AND EQUIPMENT (6.25% of Item C)</b>	<b>\$ 11,644,893</b>
---	----------------------

<b>G. CONTINGENCY (5% of Item C)</b>	<b>\$ 9,315,914</b>
--------------------------------------	---------------------

**TOTAL ESTIMATED COST** **\$ 236,070,023**

Projected Number of Students	2,500
Facilities Cost Per Student	<b>\$ 94,428</b>

NOTE: Total may not sum due to rounding.

**APPENDIX B  
STATE ALLOCATION BOARD FORM 50-01  
and 50-03 (Eligibility Document)  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
April 2014 / August 1999**

SCHOOL DISTRICT Moreno Valley Unified	FIVE DIGIT DISTRICT CODE NUMBER (see California Public School Directory) 67124
COUNTY Riverside	HIGH SCHOOL ATTENDANCE AREA (HSAA) OR SUPER HSAA (if applicable) N/A

Check one:  Fifth-Year Enrollment Projection  Tenth-Year Enrollment Projection  
 HSAA Districts Only - Check one:  Attendance  Residency  
 Residency - COS Districts Only - (Fifth Year Projection Only)

<input type="checkbox"/> Modified Weighting (Fifth-Year Projection Only)	3rd Prev. to 2nd Prev.	2nd Prev. to Prev.	Previous to Current
<input type="checkbox"/> Alternate Weighting - (Fill in boxes to the right):			

Part G. Number of New Dwelling Units  
 (Fifth-Year Projection Only) 3043

Part H. District Student Yield Factor  
 (Fifth-Year Projection Only) 0.7

**Part A. K-12 Pupil Data**

Grade	7th Prev.	6th Prev.	5th Prev.	4th Prev.	3rd Prev.	2nd Prev.	Previous	Current
	/	/	/	/	2010/2011	2011/2012	2012/2013	2013/2014
K					2610	2558	2570	2662
1					2802	2679	2773	2592
2					2700	2630	2611	2761
3					2560	2622	2665	2565
4					2675	2514	2689	2642
5					2720	2675	2505	2636
6					2552	2644	2662	2479
7					2718	2585	2595	2598
8					2669	2726	2581	2657
9					2698	2631	2453	2509
10					2744	2657	2703	2550
11					2562	2468	2512	2261
12					2492	2289	2395	2118
<b>TOTAL</b>					<b>34502</b>	<b>33678</b>	<b>33714</b>	<b>33030</b>

Part I. Projected Enrollment  
 1. Fifth-Year Projection  
 Enrollment/Residency - (except Special Day Class pupils)

K-6	7-8	9-12	TOTAL
20006	5299	9824	<b>35129</b>

Special Day Class pupils only - Enrollment/Residency

	Elementary	Secondary	TOTAL
Non-Severe	718	418	<b>1136</b>
Severe	229	162	<b>391</b>
<b>TOTAL</b>	<b>947</b>	<b>580</b>	

2. Tenth-Year Projection

Enrollment/Residency - (except Special Day Class pupils)

K-6	7-8	9-12	TOTAL

Special Day Class pupils only - Enrollment/Residency

	Elementary	Secondary	TOTAL
Non-Severe			
Severe			
<b>TOTAL</b>			

**Part B. Pupils Attending Schools Chartered By Another District**

7th Prev.	6th Prev.	5th Prev.	4th Prev.	3rd Prev.	2nd Prev.	Previous	Current
				0	3	476	564

**Part C. Continuation High School Pupils - (Districts Only)**

Grade	7th Prev.	6th Prev.	5th Prev.	4th Prev.	3rd Prev.	2nd Prev.	Previous	Current
9					0	0	0	0
10					13	3	0	9
11					121	142	116	123
12					331	209	223	150
<b>TOTAL</b>					<b>465</b>	<b>354</b>	<b>339</b>	<b>282</b>

**Part D. Special Day Class Pupils - (Districts or County Superintendent of Schools)**

	Elementary	Secondary	TOTAL
Non-Severe	686	432	<b>1118</b>
Severe	219	168	<b>387</b>
<b>TOTAL</b>	<b>905</b>	<b>600</b>	

**Part E. Special Day Class Pupils - (County Superintendent of Schools Only)**

7th Prev.	6th Prev.	5th Prev.	4th Prev.	3rd Prev.	2nd Prev.	Previous	Current
/	/	/	/	2010/2011	2011/2012	2012/2013	2013/2014

**Part F. Birth Data - (Fifth-Year Projection Only)**

County Birth Data  Birth Data by District ZIP Codes  Estimate  Estimate  Estimate

8th Prev.	7th Prev.	6th Prev.	5th Prev.	4th Prev.	3rd Prev.	2nd Prev.	Previous	Current

I certify, as the District Representative, that the information reported on this form and, when applicable, the High School Attendance Area Residency Reporting Worksheet attached, is true and correct and that:

- I am designated as an authorized district representative by the governing board of the district.
- If the district is requesting an augmentation in the enrollment projection pursuant to Regulation Section 1859.42.1 (a), the local planning commission or approval authority has approved the tentative subdivision map used for augmentation of the enrollment and the district has identified dwelling units in that map to be contracted. All subdivision maps used for augmentation of enrollment are available at the district for review by the Office of Public School Construction (OPSC).
- This form is an exact duplicate (verbatim) of the form provided by the Office of Public School Construction. In the event a conflict should exist, then the language in the OPSC form will prevail.

NAME OF DISTRICT REPRESENTATIVE (PRINT OR TYPE)

Sergio San Martin

SIGNATURE OF DISTRICT REPRESENTATIVE

DATE  
April 30, 2014

TELEPHONE NUMBER  
(951) 571-7690 x 17692

E-MAIL ADDRESS  
ssanmartin@mvusd.net



California Department of  
General Services

CA.gov | DGS | OPSC | Project Tracking

PROJECT TRACKING    PTN GENERATOR    REPORTS    PTN HELP

## District Main Page

**Return to Search Results**

District: Moreno Valley Unified  
District Rep: Mr. Sergio San Martin

Modernization Eligibility    New Construction Eligibility    Fund Release

District Code	Attendance Area	Original SAB Approval Date	Recent SAB Approval																																
67124	0	8/25/1999	12/10/2008																																
<p>SAB 50-03 New Construction Eligibility Information</p> <p><b>New Construction Baseline Eligibility</b></p> <table> <thead> <tr> <th>Grade Level:</th> <th>K - 6</th> <th>7 - 8</th> <th>9 - 12</th> <th>Non-Severe</th> <th>Severe</th> </tr> </thead> <tbody> <tr> <td>Established Eligibility:</td> <td>5942</td> <td>-2925</td> <td>2453</td> <td>0</td> <td>0</td> </tr> <tr> <td>SAB Approvals/Adjustments:</td> <td>-4228</td> <td>608</td> <td>-883</td> <td>89</td> <td>168</td> </tr> <tr> <td>Remaining Eligibility:</td> <td>1714</td> <td>-2317</td> <td>1570</td> <td>89</td> <td>168</td> </tr> </tbody> </table> <hr/> <p><b>SAB 50-03 Eligibility Document Status/Dates</b></p> <table> <tbody> <tr> <td>Status:</td> <td>PM Complete</td> </tr> <tr> <td>Date Signed:</td> <td>4/12/1999</td> </tr> <tr> <td>Date Received:</td> <td>5/11/1999</td> </tr> <tr> <td>SAB Approval Date:</td> <td>8/25/1999</td> </tr> </tbody> </table>				Grade Level:	K - 6	7 - 8	9 - 12	Non-Severe	Severe	Established Eligibility:	5942	-2925	2453	0	0	SAB Approvals/Adjustments:	-4228	608	-883	89	168	Remaining Eligibility:	1714	-2317	1570	89	168	Status:	PM Complete	Date Signed:	4/12/1999	Date Received:	5/11/1999	SAB Approval Date:	8/25/1999
Grade Level:	K - 6	7 - 8	9 - 12	Non-Severe	Severe																														
Established Eligibility:	5942	-2925	2453	0	0																														
SAB Approvals/Adjustments:	-4228	608	-883	89	168																														
Remaining Eligibility:	1714	-2317	1570	89	168																														
Status:	PM Complete																																		
Date Signed:	4/12/1999																																		
Date Received:	5/11/1999																																		
SAB Approval Date:	8/25/1999																																		

[Back to Top](#) | [Conditions of Use](#) | [Accessibility](#) | [Contact Us](#)  
Copyright © 2010 State of California

**APPENDIX C  
UPDATED EXISTING SCHOOL CAPACITY  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
Fall 2018**

Moreno Valley Unified School District  
**Update to Existing School Building Capacity**

The District conducted a capacity analysis pursuant to Section 17071.25 of the Education Code, which analysis was recalculated for this Report in accordance with Government Code Section 65995.6 as amended by Assembly Bill 695 of the 1999 Legislative Session ("AB 695").

**Part I. Classroom Inventory**

	K-6	7-8	9-12	Non-Severe	Severe	Total
Line 1 Leased State Relocatable Classrooms						0
Line 2 Portable Classrooms leased less than 5 years						0
Line 3 Interim Housing Portables leased less than 5 years			14			14
Line 4 Interim Housing Portables leased at least 5 years			0			0
Line 5 Portable Classrooms leased at least 5 years			14			14
Line 6 Portable Classrooms owned by the District	208	92	126			426
Line 7 Permanent Classrooms	509	257	258	86	52	1,162
Line 8 Total of Above:	717	349	412	86	52	1,616

**Part II. Available Classrooms**

	K-6	7-8	9-12	Non-Severe	Severe	Total
<i>Option A</i>						
a. Part I, Line 4	0	0	0	0	0	0
b. Part I, Line 5	0	0	14	0	0	14
c. Part I, Line 6	208	92	126	0	0	426
d. Part I, Line 7	509	257	258	86	52	1,162
e. Total of Above:	717	349	398	86	52	1,602
<i>Option B</i>						
a. Part I, Line 8	717	349	412	86	52	1,616
b. Part I, Lines 1, 2, 5 and 6 (total only)						440
c. 25 percent of Part I, Line 7 (total only)						291
d. Subtract c from b (enter 0 if negative)	72	35	42	0	0	149
e. Total (a minus d)	645	314	370	86	52	1,467

**Part III. Determination of Existing School Building Capacity**

	K-6	7-8	9-12	Non-Severe	Severe	Total
Line 1 Classroom Capacity						
Line 2 SER Adjustment	16,125	8,478	9,990	1,118	468	36,179
Line 3 Operational Grants						0
Line 4 Greater of Lines 2 or 3						0
Line 5 Total of Lines 1 and 4	16,125	8,478	9,990	1,118	468	36,179

**Part IV. Allocation of Existing School Building Capacity to K-5, 6-8 Grade Configuration**

	K-5	6-8	9-12	Total
Allocation of Capacity K-6, 7-8 to K-5, 6-8 based on number of grades	13,821	10,782	9,990	34,593
Current Enrollment SDC Only	555	388	603	1,546
Allocation of SDC Capacity to Elementary and Secondary	569	398	619	1,586
Total Capacity	14,390	11,180	10,609	36,179

**APPENDIX D  
STUDENT ENROLLMENT  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
October 2018**

## Appendix D

Moreno Valley Unified School District  
**October 3, 2018 Preliminary CBEDS Enrollment Report**

<b>Enrollment Data</b>			
Grade	Enrollment	Ungraded	Subtotal by School Level (K-5, 6-8)
TK	537		
K	2,218		
1	2,337		
2	2,361		
3	2,349		
4	2,211		
5	2,420		
Ungraded		555	14,988
6	2,406		
7	2,596		
8	2,428		
Ungraded		388	7,818
9	2,411		
10	2,407		
11	2,251		
12	2,296		
Ungraded		603	9,968
<b>Totals</b>	<b>31,228</b>	<b>1,546</b>	<b>32,774</b>

<b>Special Day Class Pupils</b>			
	Non-Severe	Severe	Total
Elementary	410	145	555
Middle	305	83	388
High	374	229	603
<b>Totals</b>	<b>1,089</b>	<b>457</b>	<b>1,546</b>

Source: FY 2018/19 CBEDS Report provided February 7, 2019.

**APPENDIX E  
STUDENT GENERATION RATE ANALYSIS  
PER GOVERNMENT CODE SECTION 65995.6  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
May 2019**

---

## Student Generation Rates

---

SGRs for an SFNA are based, per Government Code Section 65995.6, on the historical student generation rates of new residential units constructed during the previous five years that are of a similar type of unit to those anticipated to be constructed either in the school district or in the city or the county in which the school district is located in the next five years. The methodology used to determine student generation rates is as follows:

---

### *Methodology*

---

County data was obtained from the Assessor's Office of the County of Riverside. Residential construction built within the past five years was extracted. This data was then matched to a student database received in February of 2019 which reported student enrollment as of October 3, 2018. A "match" was reported when a student was found in the student file, registered with the District with the same address as the address of the unit built ("situs" address) within the past five years. The total students matched divided by the total dwelling units extracted, by grade and housing type, result in the SGR.

---

#### STUDENT DATABASE

---

The District provided Special District Financing & Administration with a current student file, which contained student identification numbers, grades and situs addresses. There were 32,620 students in the file. Of these students, 32,620 had "regular" addresses. The term "regular" refers to an address that is readable and not, for example, a post office box. The difference was 0.00% or 0 students had undeterminable addresses.

The following section reviews the steps taken to match existing students to dwelling units constructed in the last five years.

---

#### COUNTY OF RIVERSIDE

---

In February of 2019, a property characteristics database was obtained from the Assessor's Office of the County of Riverside. This database contains only residential parcels and provides the year that the structure was built. This database contained 41,462 records.

According to the County of Riverside, 531 single-family detached dwelling units, 0 single-family attached dwelling units and 258 multi-family attached dwelling units were constructed and sold based on ownership within the last five-year period. The five-year period being evaluated is approximately ten months of calendar year 2014 through two months 2019. There are a total of 420 students living in these 789 residential units.

STUDENTS TRANSFERRING OUT OF THE DISTRICT

The District provided SDFA with a listing of students that are generated from within the boundaries of the District but currently are transferring out of the District. These students were also matched to dwelling units constructed within the past five-year period. These students are included in the total figures provided above and the tables below.

***Students Generated from Dwelling Units Constructed in the Last Five-Year Period***

The match of student to dwelling unit, when divided by the number of dwelling units of various types constructed in the past five-year period, produces the SGR per grade per housing type. These calculations are shown in the tables below.

<b>Table E-1 Single-Family Detached SGR</b>				
<b>Grade</b>	<b>Students Matched</b>	<b>SFD Dwelling Units</b>	<b>SGR by Grade*</b>	<b>SGR by School Level*</b>
T-K & K	22		0.0418	
1	19		0.0364	
2	25		0.0478	
3	22		0.0421	
4	21		0.0396	
5	28		0.0534	0.2611
6	17		0.0317	
7	30		0.0559	
8	30		0.0572	0.1448
9	20		0.0368	
10	26		0.0490	
11	17		0.0311	
12	24		0.0449	0.1618
Total	301	531	0.5677	0.5677

\*Total may not divide across or add down due to rounding.

**Table E-2  
Multi-Family Attached SGR**

<b>Grade</b>	<b>Students Matched</b>	<b>MFA Dwelling Units</b>	<b>SGR by Grade*</b>	<b>SGR by School Level*</b>
Kindergarten	11		0.0400	
1	8		0.0303	
2	11		0.0435	
3	13		0.0513	
4	7		0.0277	
5	11		0.0435	0.2364
6	13		0.0493	
7	11		0.0439	
8	9		0.0354	0.1286
9	7		0.0279	
10	6		0.0240	
11	7		0.0277	
12	4		0.0159	0.0954
<b>Total</b>	<b>119</b>	<b>258</b>	<b>0.4604</b>	<b>0.4604</b>

\*Total may not divide across or add down due to rounding.

***Generation Rates for Single Family Attached Dwelling Units***

Section 65995.6 of the Government Code directs the District to project enrollment growth from the development of new residential units over the next five years. This projection is based upon the historical SGRs of new residential units constructed in the previous five years that are of a similar type of unit to those anticipated to be constructed either in the District or the Cities or County in which the District is located in the next five years.

According to the records of the County of Riverside and the District, the District did not experience the construction of any single family attached dwelling units within the past five-year period that were not senior-restricted.

The Beaumont Unified School District ("BUSD"), also located in Riverside County, was contacted and asked to provide data regarding the construction of single family attached dwelling units during the previous five-year period and their resulting SGRs. It is projected that Moreno Valley Unified School District will experience some development of non-senior restricted single family attached dwelling units in the next five years. The BUSD SGR for SFA dwelling units was used as a reasonable projection due to proximity of the two school districts and the similar dwelling unit size; BUSD projects SFA dwelling units of 1,400 square feet of assessable space and the District is projecting SFA dwelling units of 1,500 square feet of assessable space. The source of the data is the BUSD School Facilities Needs Analysis, adopted April 10, 2018. The table below shows the data provided by the BUSD.

**Table E-3**  
**Single Family Attached Dwelling Units Student Generation**  
**Source: Beaumont Unified School District, 2018 SFNA**

Grade	SGR by School Level*
Elementary (K-5)	0.2622
Middle (6-8)	0.1230
High (9-12)	0.1148
Total	0.5000

\*Total may not add down due to rounding.

**APPENDIX F  
DEVELOPMENT PROJECTIONS  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
May 2019**

---

## **Development Projections**

---

A projection was made of the residential units to be constructed in the next five years by housing type according to Government Code Section 65995.6. In March of 2019, the City of Moreno Valley, the City of Riverside and the County of Riverside were sent prior year residential development projections and average residential dwelling unit square footage projections and asked to provide updated information comments. Data was also requested from SCAG which was provided to the agencies in March and April of 2019 and used to cross-check the final residential development projections. Each of the following sections identifies the data gathered and comments received from each source.

---

### ***Local Agencies***

---

The District encompasses the majority of the City of Moreno Valley, a portion of the City of Riverside and unincorporated areas of the County of Riverside. The planning departments of each of these agencies were contacted and asked to provide, if possible, a projection of residential dwelling units to be constructed within the next five-year period. The request was further defined to include the type and estimated size of the dwelling units.

For the City of Moreno Valley three of typically four data sources were reviewed. For the current year, the City of Moreno Valley "California Development Projects Map" and listings titled, "New Single-Family Development" and "New Multi-Family Development" were being updated and not available for review. Second, historical permit activity was reviewed by analysis of the County of Riverside Assessor data which tracks the year a dwelling unit is constructed. This data provided historical trends. And finally, data from SCAG was requested and reviewed to provide a five-year projection of residential dwelling units, both for the entire District and the area within the City of Moreno Valley served by the District. Contact was made with City staff and updates were provided on processing projects. Our draft residential development projections and the projection of average square footage per dwelling unit type was provided to the Planning Official of the City of Moreno Valley and a Senior Planner in April of 2019. Page 4 to our correspondence requesting a signed response to our proposed projections was received requesting modifications to our projections on April 26, 2019 and has been included in the attached correspondence.

Staff of the City of Riverside provided residential development projections by Traffic Analysis Zones ("TAZ") for the next five-year period in February 2016. This same data has been provided by the City of Riverside to SCAG. In prior correspondence city Staff had noted that the area within the city and the District is land designated as non-residential land use per the General Plan 2025. The projection of zero dwelling units and no projection of average square footage per dwelling unit type due to no projection of dwelling units was sent to staff at the City of Riverside on April 10, 2019 (which is attached to this Appendix). Page 4 to our correspondence requesting a signed response to our proposed projections was received as accepted on April 12, 2019. The signed certification had been inserted into the letter attached to this Appendix.

Correspondence was sent to the County of Riverside, Senior Transportation Planner. The correspondence, which is attached as the final pages to this Appendix, requested a review of the draft residential development projections and to the projection of average square footage per dwelling unit type. Page 4 to our correspondence requesting a signed response to our proposed projections was received as accepted on April 11, 2019 and has been included in the attached correspondence.

---

---

***Governmental Agencies***

---

As a cross-check, SCAG was contacted. They provided a residential forecast for the area within the boundaries of the District. The 2016 Regional Transportation Plan and Sustainable Communities Strategy Growth Forecast adopted in April of 2016 by TAZ was approved by each agency prior to release and remains the most current available data. A review was made by SCAG using their geographic information system of TAZ that cross the boundary of the District and a percentage was applied by SCAG to represent the portion of the TAZ within the boundaries of the District and if necessary a portion of the TAZ within each agency. The SCAG projection for the Moreno Valley Unified School District, as adjusted by the removal of portions of TAZ as described and as modified by request for those portions within the City of Riverside, was enclosed in the correspondence to each of the local agencies.

As a cross-check to projected development for the prescribed local agencies, it can be extrapolated from the adjusted SCAG data, as modified by the City of Riverside, that between fiscal years 2019/20 and 2023/24 a total of 3,847 dwelling units will have building permits issued.

---

---

***Final Development Projections***

---

The following table shows the final development projections by housing type. In recognition of the impact on school facilities from new development, the District and the development community previously have entered into various mitigation agreements in order to seek to ensure the timely construction of school facilities to house students from new development ("Mitigated Development"). These Mitigated Developments, shown separately in the table below, can be excluded from the projections contained within this SFNA as they are providing funding and support to the District's school facilities program and will not generate "Unhoused Students." Mitigated Development is not included for purposes of projecting development to be constructed in the next five-year period.

<b>Table F-1</b>	
<b>Final Residential Development Projections</b>	
<b>Fiscal Years 2019/2020 through 2023/2024</b>	
<b>Single-Family Detached</b>	
Mitigated	190
Unmitigated	221
<b>Single-Family Attached</b>	
Mitigated	0
Unmitigated	50
<b>Multi-Family Attached</b>	
Mitigated	0
Unmitigated	750
<b>Total Units</b>	<b>1,211</b>



**SPECIAL DISTRICT FINANCING  
& ADMINISTRATION**

437 W. Grand Avenue  
Escondido CA 92025  
760 • 233 • 2630  
Fax • 233 • 2631

---

*- Via Email Only -*

April 18, 2019

Ms. Patty Nevins  
Planning Manager  
Community & Economic Development Department  
Planning Division

Ms. Claudia Manrique  
Advanced Planning  
Community & Economic Development Department  
Planning Division

Mr. Chris Ormby  
Senior Planner  
Community & Economic Development Department  
Planning Division

Sean P. Kelleher  
Senior Planner  
Community & Economic Development Department  
Planning Division

**City of Moreno Valley**  
14177 Frederick Street  
Moreno Valley CA 92552

**RE: CONFIRMATION OF RESIDENTIAL DEVELOPMENT AND SQUARE  
FOOTAGE PROJECTIONS FOR THE MORENO VALLEY UNIFIED SCHOOL  
DISTRICT**

Special District Financing & Administration ("SDFA") is a consultant to the Moreno Valley Unified School District ("MVUSD" or "School District") tasked with updating the current School Facilities Needs Analysis ("SFNA") which calculates the impact fee paid by residential development at the time of building permit issuance. The SFNA is only valid for a one-year period and as such is updated at a minimum on an annual basis. We are sending this correspondence to confirm our recent communication regarding two elements of the report as to accuracy and completeness.

Residential Development Projections for the Next Five-Year Period

The statute requires that a projection of the residential development for the next five-year period by housing type be established. Housing type in the statute makes reference to single family detached dwelling units ("SFD"), single family attached dwelling units ("SFA") and multi-family attached dwelling units ("MFA"). These last two

categories can be further classified to include townhomes and condominiums for the SFA dwelling units and apartments for the MFA dwelling units. The five-year projection period for the current update will cover the fiscal years of 2019/20 through 2023/24.

Typically, a review is made of the “City of Moreno Valley, California Development Projects” Map (most recent dated May 2017) and listings labeled “New Single-Family Development” and “New Multi-Family Development.” It is our understanding that these documents are currently being updated and not yet available to the public. In the review of these listings, projects outside of the School District boundaries were removed and modifications were made based on communications from City staff. These modifications included the deletion of projects due to expired entitlements, the addition of projects newly approved, or the revision to reflect more accurate dwelling unit totals. In future years we will again review these listings as described but, have not done so for the current five-year projection.

We reviewed historical permit activity by review of the City of Moreno Valley Building Permit Activity Report from 2012 through December 2018. This reports show a total of 1,739 SFD, 0 SFA and 632 MFA (represented by 61 building permits) dwelling units. Understanding that the City includes property not within the boundaries of the School District, the use of this seven-year historical average as a base for the dwelling units to be constructed in the next five-year period (dividing by seven and multiplying by five), which would adjust the projections for the marked increase in permit activity for calendar years 2017 and 2018, a total of 1,242 SFD, zero (0) SFA and 451 MFA residential dwelling units would be projected.

We also reviewed historical Certificates of Compliance issued by the School District. For the prior five fiscal year periods (fiscal years 2013/14 through 2017/18) the School District issued Certificates of Compliance representing the construction of 1,219 dwelling units. These dwelling units can be subdivided into the housing types as 703 SFD, 0 SFA and 516 MFA. Again, we recognizing that the School District does not contain the same geographic boundaries as the City.

The Southern California Association of Governments (“SCAG”) was contacted. They provided the most recent available projection of residential dwelling units (“2016 Regional Transportation Plan and Sustainable Communities Strategy Growth Forecast”) adopted in April of 2016, in April of 2016. (Please note; SCAG projections for the area of the School District within the City of Riverside are sourced from the City of Riverside. These separate projections are enclosed.) Because the SCAG projections are on a calendar-year basis and the five-year projection period is on a fiscal-year basis the following assumptions were made; the SCAG calculations are as of January 1 in any given year, are reporting on occupiable dwelling units and there is a six month lag from permit date to saleable or occupancy date. Therefore, the SCAG 2020 through 2024 projection is being used to project permit issuance from fiscal year 2019/20 through 2023/24. The enclosed resulting projections show the calculation of an estimated number of dwelling units to be constructed from fiscal years 2019/20 through 2023/24 for both the MVUSD in total and for the City of Moreno Valley. The total projected to be constructed within the next five-year period for the City of Moreno Valley is 3,649 dwelling units. The total projected to be constructed with the next five years for the MVUSD is 3,848 dwelling units (3,649 within the City of Moreno Valley, 188 within the County of Riverside and 11 within the City of Riverside). This projected total is considerably higher than the total projected using historical averages of permits issued

from the City of Moreno Valley or historical Certificates of Compliance issued by the School District.

These results were discussed with City staff, and as a result we have based our projections on the recommendations of staff. These resulting projections are supported by the above sources and remain conservative.

The resulting projections by unit type for the property within the MVUSD and the City of Moreno Valley is 400 SFD dwelling units, 50 SFA dwelling units and 550 MFA dwelling units to be constructed between July 1, 2019 and June 30, 2024. A final projection will be used to calculate the Level II Fee once comments are received from the City of Moreno Valley, the City of Riverside and the County of Riverside.

We appreciate the review that the City of Moreno Valley staff has already provided. Please be in contact with any additional comments if necessary. We value your earlier analysis and correspondence and appreciate your final review.

#### Residential Livable Square Footage Projections for the Next Five-Year Period

The calculation of the Level II and Level III Fee involves determining an average livable square footage for dwelling unit types to be constructed in the next five-year period. A review was made of the historical assessable space of like dwelling units. This review was discussed with staff at the City of Moreno Valley. Staff evaluated processing projects and currently processing viable projects and found that the average assessable space for dwelling units projected to be constructed in the next five-year period was most accurately reflected as 2,497 for SFD dwelling units, 1,500 for SFA dwelling units and 1,001 for MFA dwelling units. These averages, as sourced from the City of Moreno Valley and based on currently processing projects, are being provided as the projection of average square footage per dwelling unit type for the next five-year period. We are asking the City of Moreno Valley to confirm or provide comments regarding these averages.

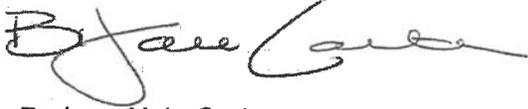
#### Clarity of Request

To make the acceptance or correction of the proposed draft projection of dwelling units and average dwelling unit sizes simple, we have included below an area noting acceptance or requesting modifications. The addition of this area came at the request of other agencies. Please feel free to communicate any comments or questions through email or phone if preferred. We will use the confirmation for our records.

#### Timing of Our Request

We will be using this information to support the School Facilities Needs Analysis, which establishes the Level II and Level III Fees. The final draft of such report will be distributed to the City of Riverside, the City of Moreno Valley and the County of Riverside on or about May 1, 2019. We are respectfully asking that any comments or acceptance correspondence be received in our office by telephone, fax or U.S. Mail by **April 26, 2019**. Any communication received after this date will be considered for additional updates to the MVUSD SFNA.

We thank you in advance for your efforts. Please do not hesitate to call should you have any questions.

A handwritten signature in black ink, appearing to read "Barbara Hale-Carter". The signature is fluid and cursive, with the first name "Barbara" being more prominent than the last name "Hale-Carter".

Barbara Hale-Carter  
Principal

<b>City of Moreno Valley                      Confirmation of Projections                      for the Area of the City within                      the Moreno Valley Unified School District                      Fiscal Years 2019/20 through 2023/24</b>		
<b>Projection of Dwelling Units:</b>	<b>Proposed</b>	<b>Modified</b>
Single Family Detached	300	400
Single Family Attached	50	50
Multi-Family Attached	125	750
<b>Total Dwelling Units Projected:</b>	<b>475</b>	<b>1200</b>
<b>Projection of Average Assessable                      Space in Square Feet:</b>		
Single Family Detached	2,497	2497
Single Family Attached	1,500	1500
Multi-Family Attached	1,001	1000
Confirmation that the above projections appear reasonable at this time. Please mark any modifications requested in the area provided. Additional City Comments:		
Printed Name: <i>Sean Keltcher</i>		Signature: 
Title: <i>Senior Planner</i>		Date: <i>4/26/2019</i>

Enclosure

- C: Mike Reynolds; Moreno Valley Unified School District  
 Samer Alzubaidi; Moreno Valley Unified School District  
 Wendy Wiles; Atkinson, Andelson, Loya, Ruud & Romo

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43262100	Moreno Valley	99.97%	1,424	1,462	1,524	1,524
43262200	Moreno Valley	99.98%	583	641	641	641
43262300	Moreno Valley	25.39%	1	4	14	17
43263100	Moreno Valley	3.73%	6	7	10	11
43263200	Moreno Valley	42.26%	180	231	350	377
43263300	Moreno Valley	93.84%	969	984	1,016	1,016
43264100	Moreno Valley	14.74%	1	2	2	2
43264200	Moreno Valley	98.97%	851	1,105	1,734	1,836
43264300	Moreno Valley	3.60%	0	0	1	1
43266100	Moreno Valley	99.30%	509	559	559	559
43266200	Moreno Valley	100.00%	2,295	2,602	2,897	2,897
43267100	Moreno Valley	83.37%	0	0	0	0
43267200	Moreno Valley	100.00%	836	836	836	836
43268200	Moreno Valley	0.60%	1	1	1	1
43269200	Moreno Valley	99.41%	534	625	836	869
43269300	Moreno Valley	3.18%	1	2	3	3
43270100	Moreno Valley	96.96%	0	0	0	0
43270200	Moreno Valley	100.00%	878	994	1,067	1,067
43271100	Moreno Valley	100.00%	799	896	896	896
43272100	Moreno Valley	100.00%	1,222	1,432	1,901	1,971
43273100	Moreno Valley	100.00%	1,638	1,722	1,910	1,938
43274100	Moreno Valley	100.00%	922	1,042	1,079	1,079
43275100	Moreno Valley	100.00%	1,350	1,557	2,023	2,093
43276100	Moreno Valley	100.00%	855	934	934	934
43277100	Moreno Valley	95.58%	0	0	0	0
43277200	Moreno Valley	100.00%	816	922	938	938
43278100	Moreno Valley	100.00%	1,151	1,304	1,421	1,421
43279100	Moreno Valley	100.00%	1,027	1,311	2,011	2,124
43280100	Moreno Valley	100.00%	867	891	944	952
43281100	Moreno Valley	100.00%	1,020	1,158	1,334	1,334
43282100	Moreno Valley	74.45%	884	1,011	1,291	1,323
43283100	Moreno Valley	100.00%	773	875	939	939
43284100	Moreno Valley	100.00%	98	106	106	106
43284200	Moreno Valley	100.00%	430	492	629	649
43285200	Moreno Valley	36.88%	150	241	457	490
43286100	Moreno Valley	100.00%	815	932	1,192	1,231
43287100	Moreno Valley	100.00%	857	983	1,266	1,308
43288100	Moreno Valley	100.00%	650	734	754	754
43288200	Moreno Valley	100.00%	522	536	567	572
43289100	Moreno Valley	100.00%	319	366	469	484
43289200	Moreno Valley	100.00%	166	252	465	500
43290100	Moreno Valley	100.00%	939	1,086	1,418	1,469
43290200	Moreno Valley	100.00%	366	493	808	859
43291100	Moreno Valley	100.00%	962	1,104	1,420	1,467
43292100	Moreno Valley	100.00%	667	722	848	867
43292200	Moreno Valley	100.00%	457	517	553	553
43293100	Moreno Valley	100.00%	833	875	969	983
43294100	Moreno Valley	100.00%	436	502	652	675
43295100	Moreno Valley	100.00%	444	504	567	567
43295200	Moreno Valley	100.00%	595	656	656	656
43296100	Moreno Valley	5.98%	20	23	30	31
43296200	Moreno Valley	96.53%	515	636	934	983
43297100	Moreno Valley	100.00%	1,296	1,483	1,898	1,959
43298100	Moreno Valley	19.80%	13	18	32	34
43298200	Moreno Valley	100.00%	266	320	449	469
43298300	Moreno Valley	100.00%	285	338	462	482

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43319100	Moreno Valley	60.75%	1,059	1,059	1,059	1,059
43319200	Moreno Valley	66.21%	962	1,019	1,145	1,161
43322100	Moreno Valley	100.00%	416	497	685	714
43322200	Moreno Valley	100.00%	888	905	942	948
43322300	Moreno Valley	100.00%	770	883	1,132	1,169
43324100	Moreno Valley	100.00%	1,345	1,605	2,223	2,320
43324200	Moreno Valley	100.00%	142	291	704	777
43324300	Moreno Valley	77.54%	751	875	1,160	1,203
43328100	Moreno Valley	22.98%	351	419	579	604
43328200	Moreno Valley	94.41%	189	222	298	311
43328300	Moreno Valley	1.40%	1	2	2	2
43330100	Moreno Valley	100.00%	824	934	1,193	1,234
43335100	Moreno Valley	1.56%	0	0	1	1
43336100	Moreno Valley	100.00%	217	258	362	379
43336200	Moreno Valley	100.00%	6	6	6	6
43338100	Moreno Valley	79.81%	170	245	245	245
43338200	Moreno Valley	100.00%	1,347	1,574	2,115	2,200
43338300	Moreno Valley	100.00%	98	98	98	98
43338400	Moreno Valley	100.00%	406	468	609	631
43344100	Moreno Valley	7.15%	1	1	1	1
43344200	Moreno Valley	82.09%	2	2	0	0
43447100	Moreno Valley	30.00%	2	4	15	15
43254100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43255400	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43260100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43262300	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264200	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264300	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43253200	Unincorporated	5.62%	70	81	101	102
43255300	Unincorporated	0.83%	17	18	19	19
43255400	Unincorporated	4.39%	87	90	95	97
43257100	Unincorporated	0.72%	5	5	6	6
43259100	Unincorporated	1.70%	1	1	2	2
43260100	Unincorporated	0.37%	6	6	7	7
43260200	Unincorporated	97.61%	153	190	281	307
43261200	Unincorporated	33.74%	0	0	0	0
43261300	Unincorporated	88.91%	145	148	154	155
43262300	Unincorporated	70.59%	1	12	39	46
43263100	Unincorporated	94.92%	158	188	260	277
43263200	Unincorporated	55.68%	238	304	462	496
43263300	Unincorporated	6.16%	64	65	67	67
43267100	Unincorporated	16.63%	0	0	0	0
43268100	Unincorporated	1.14%	0	0	0	0
43268200	Unincorporated	99.29%	210	243	243	243
43269100	Unincorporated	5.87%	6	8	11	12
43269200	Unincorporated	0.59%	3	4	5	5
43269300	Unincorporated	81.10%	29	39	67	73
43270100	Unincorporated	3.04%	0	0	0	0
43277100	Unincorporated	4.42%	0	0	0	0
43296100	Unincorporated	44.33%	152	171	224	233
43296200	Unincorporated	3.47%	19	23	34	35
43298100	Unincorporated	57.84%	37	53	93	100
43328100	Unincorporated	0.81%	12	15	20	21
43328300	Unincorporated	65.17%	61	70	91	94
43335100	Unincorporated	38.92%	0	9	37	37
43338100	Unincorporated	1.78%	4	5	5	5
43344200	Unincorporated	1.70%	0	0	0	0

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43445100	Unincorporated	5.58%	8	8	9	9
43447100	Unincorporated	1.32%	0	0	1	1
			<b>45,927</b>	<b>52,152</b>	<b>63,620</b>	<b>65,274</b>

**Extrapolation of Five Year Projections based on Annual Averages:**

Difference Current Year to Prior Year:	6,225	11,468	1,654
Number of Years within Years Estimated:	8	15	5
Annual Average Dwelling Units per Year Estimated:*	778.13	764.53	330.80

**Estimated Number of Dwelling Units January 1, 2019**

	City of	County of	Total
	Moreno Valley	Riverside	
<u>Existing Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>
As of January 1, 2012	44,441.00	1,486.00	45,927.00
Additional Dwelling Units Constructed 1/1/2012 to 1/1/2013	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2013 to 1/1/2014	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2014 to 1/1/2015	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2015 to 1/1/2016	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2016 to 1/1/2017	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2017 to 1/1/2018	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2018 to 1/1/2019	744.38	33.75	778.13
<b>Estimated Dwelling Units to Exist on January 1, 2019:***</b>	<b>49,651.63</b>	<b>1,722.25</b>	<b>51,373.88</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	City of	County of	Total
	Moreno Valley	Riverside	
<u>Permitted Date</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>
Dwelling Units Permitted 7/1/19 to 7/1/20	744.38	33.75	778.13
Dwelling Units Permitted 7/1/20 to 7/1/21	726.07	38.47	764.53
Dwelling Units Permitted 7/1/21 to 7/1/22	726.07	38.47	764.53
Dwelling Units Permitted 7/1/22 to 7/1/23	726.07	38.47	764.53
Dwelling Units Permitted 7/1/23 to 7/1/24	726.07	38.47	764.53
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>	<b>3,648.64</b>	<b>187.62</b>	<b>3,836.26</b>

\*The data provided by SCAG per TAZ was adopted at a Jurisdictional Level Only in April of 2016 to be used in the 2016 Regional Transportation Plan and Sustainable Communities Strategy.

\*\*Percentage in District was provided by SCAG by GIS review.

\*\*\*Totals may not sum due to rounding.

Moreno Valley Unified School District

Source: City of Riverside - Socio-Economic Data Approved with SCAG and WRCOG

**Manipulated to Provide the Area of the City of Riverside within the Boundaries of the Moreno Valley Unified School District**

Data provided: May 19, 2015 (Most recent as of February 2016)

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43132100	Riverside	0.00%	0.00	0.00	0.00
43136100	Riverside	0.00%	0.00	0.00	0.00
43142100	Riverside	0.00%	0.00	0.00	0.00
43142200	Riverside	0.00%	0.00	0.00	0.00
43142300	Riverside	0.00%	0.00	0.00	0.00
43144300	Riverside	0.00%	0.00	0.00	0.00
43144500	Riverside	0.00%	0.00	0.00	0.00
43178100	Riverside	0.00%	0.00	0.00	0.00
43182300	Riverside	0.00%	0.00	0.00	0.00
43185200	Riverside	0.00%	0.00	0.00	0.00
43186100	Riverside	0.00%	0.00	0.00	0.00
43186200	Riverside	0.00%	0.00	0.00	0.00
43187100	Riverside	0.00%	0.00	0.00	0.00
43187200	Riverside	0.00%	0.00	0.00	0.00
43190100	Riverside	0.00%	0.00	0.00	0.00
43191100	Riverside	0.00%	0.00	0.00	0.00
43191200	Riverside	0.00%	0.00	0.00	0.00
43192100	Riverside	0.00%	0.00	0.00	0.00
43192200	Riverside	0.00%	0.00	0.00	0.00
43192300	Riverside	0.00%	0.00	0.00	0.00
43193100	Riverside	0.00%	0.00	0.00	0.00
43194100	Riverside	0.00%	0.00	0.00	0.00
43194200	Riverside	0.00%	0.00	0.00	0.00
43195100	Riverside	0.00%	0.00	0.00	0.00
43195200	Riverside	0.00%	0.00	0.00	0.00
43195300	Riverside	0.00%	0.00	0.00	0.00
43196100	Riverside	0.00%	0.00	0.00	0.00
43196200	Riverside	0.00%	0.00	0.00	0.00
43196300	Riverside	0.00%	0.00	0.00	0.00
43196400	Riverside	0.00%	0.00	0.00	0.00
43197100	Riverside	0.00%	0.00	0.00	0.00
43197200	Riverside	0.00%	0.00	0.00	0.00
43197300	Riverside	0.00%	0.00	0.00	0.00
43197400	Riverside	0.00%	0.00	0.00	0.00
43198100	Riverside	0.00%	0.00	0.00	0.00
43198200	Riverside	0.00%	0.00	0.00	0.00
43198300	Riverside	0.00%	0.00	0.00	0.00
43198400	Riverside	0.00%	0.00	0.00	0.00
43198500	Riverside	0.00%	0.00	0.00	0.00
43199200	Riverside	0.00%	0.00	0.00	0.00
43199300	Riverside	0.00%	0.00	0.00	0.00
43199400	Riverside	0.00%	0.00	0.00	0.00
43199500	Riverside	0.00%	0.00	0.00	0.00
43200100	Riverside	0.00%	0.00	0.00	0.00
43201100	Riverside	0.00%	0.00	0.00	0.00
43201200	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43202100	Riverside	0.00%	0.00	0.00	0.00
43202200	Riverside	0.00%	0.00	0.00	0.00
43203100	Riverside	0.00%	0.00	0.00	0.00
43203200	Riverside	0.00%	0.00	0.00	0.00
43204100	Riverside	0.00%	0.00	0.00	0.00
43205100	Riverside	0.00%	0.00	0.00	0.00
43206100	Riverside	0.00%	0.00	0.00	0.00
43207100	Riverside	0.00%	0.00	0.00	0.00
43207200	Riverside	0.00%	0.00	0.00	0.00
43208100	Riverside	0.00%	0.00	0.00	0.00
43209100	Riverside	0.00%	0.00	0.00	0.00
43209200	Riverside	0.00%	0.00	0.00	0.00
43209300	Riverside	0.00%	0.00	0.00	0.00
43209400	Riverside	0.00%	0.00	0.00	0.00
43209500	Riverside	0.00%	0.00	0.00	0.00
43209600	Riverside	0.00%	0.00	0.00	0.00
43210100	Riverside	0.00%	0.00	0.00	0.00
43210200	Riverside	0.00%	0.00	0.00	0.00
43211100	Riverside	0.00%	0.00	0.00	0.00
43211200	Riverside	0.00%	0.00	0.00	0.00
43211300	Riverside	0.00%	0.00	0.00	0.00
43211400	Riverside	0.00%	0.00	0.00	0.00
43212100	Riverside	0.00%	0.00	0.00	0.00
43213100	Riverside	0.00%	0.00	0.00	0.00
43213200	Riverside	0.00%	0.00	0.00	0.00
43213300	Riverside	0.00%	0.00	0.00	0.00
43214100	Riverside	0.00%	0.00	0.00	0.00
43214200	Riverside	0.00%	0.00	0.00	0.00
43214300	Riverside	0.00%	0.00	0.00	0.00
43215100	Riverside	0.00%	0.00	0.00	0.00
43215200	Riverside	0.00%	0.00	0.00	0.00
43215300	Riverside	0.00%	0.00	0.00	0.00
43215400	Riverside	0.00%	0.00	0.00	0.00
43217100	Riverside	0.00%	0.00	0.00	0.00
43217200	Riverside	0.00%	0.00	0.00	0.00
43218100	Riverside	0.00%	0.00	0.00	0.00
43218200	Riverside	0.00%	0.00	0.00	0.00
43218300	Riverside	0.00%	0.00	0.00	0.00
43218400	Riverside	0.00%	0.00	0.00	0.00
43219100	Riverside	0.00%	0.00	0.00	0.00
43219200	Riverside	0.00%	0.00	0.00	0.00
43220200	Riverside	0.00%	0.00	0.00	0.00
43221100	Riverside	0.00%	0.00	0.00	0.00
43221200	Riverside	0.00%	0.00	0.00	0.00
43222100	Riverside	0.00%	0.00	0.00	0.00
43222200	Riverside	0.00%	0.00	0.00	0.00
43222300	Riverside	0.00%	0.00	0.00	0.00
43223100	Riverside	0.00%	0.00	0.00	0.00
43223200	Riverside	0.00%	0.00	0.00	0.00
43223300	Riverside	0.00%	0.00	0.00	0.00
43223400	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43223500	Riverside	0.00%	0.00	0.00	0.00
43223600	Riverside	0.00%	0.00	0.00	0.00
43223700	Riverside	0.00%	0.00	0.00	0.00
43223800	Riverside	0.00%	0.00	0.00	0.00
43223900	Riverside	0.00%	0.00	0.00	0.00
43224100	Riverside	0.00%	0.00	0.00	0.00
43224200	Riverside	0.00%	0.00	0.00	0.00
43224300	Riverside	0.00%	0.00	0.00	0.00
43225100	Riverside	0.00%	0.00	0.00	0.00
43225200	Riverside	0.00%	0.00	0.00	0.00
43225300	Riverside	0.00%	0.00	0.00	0.00
43227100	Riverside	0.00%	0.00	0.00	0.00
43227200	Riverside	0.00%	0.00	0.00	0.00
43227300	Riverside	0.00%	0.00	0.00	0.00
43227400	Riverside	0.00%	0.00	0.00	0.00
43228100	Riverside	0.00%	0.00	0.00	0.00
43228200	Riverside	0.00%	0.00	0.00	0.00
43228300	Riverside	0.00%	0.00	0.00	0.00
43228400	Riverside	0.00%	0.00	0.00	0.00
43229100	Riverside	0.00%	0.00	0.00	0.00
43229200	Riverside	0.00%	0.00	0.00	0.00
43230100	Riverside	0.00%	0.00	0.00	0.00
43230200	Riverside	0.00%	0.00	0.00	0.00
43230300	Riverside	0.00%	0.00	0.00	0.00
43230400	Riverside	0.00%	0.00	0.00	0.00
43231100	Riverside	0.00%	0.00	0.00	0.00
43231200	Riverside	0.00%	0.00	0.00	0.00
43231300	Riverside	0.00%	0.00	0.00	0.00
43231400	Riverside	0.00%	0.00	0.00	0.00
43231500	Riverside	0.00%	0.00	0.00	0.00
43231600	Riverside	0.00%	0.00	0.00	0.00
43231700	Riverside	0.00%	0.00	0.00	0.00
43231800	Riverside	0.00%	0.00	0.00	0.00
43232100	Riverside	0.00%	0.00	0.00	0.00
43232200	Riverside	0.00%	0.00	0.00	0.00
43233100	Riverside	0.00%	0.00	0.00	0.00
43233200	Riverside	0.00%	0.00	0.00	0.00
43233300	Riverside	0.00%	0.00	0.00	0.00
43234100	Riverside	0.00%	0.00	0.00	0.00
43234200	Riverside	0.00%	0.00	0.00	0.00
43235100	Riverside	0.00%	0.00	0.00	0.00
43235200	Riverside	0.00%	0.00	0.00	0.00
43235300	Riverside	0.00%	0.00	0.00	0.00
43235400	Riverside	0.00%	0.00	0.00	0.00
43235500	Riverside	0.00%	0.00	0.00	0.00
43236100	Riverside	0.00%	0.00	0.00	0.00
43236200	Riverside	0.00%	0.00	0.00	0.00
43236300	Riverside	0.00%	0.00	0.00	0.00
43236400	Riverside	0.00%	0.00	0.00	0.00
43236500	Riverside	0.00%	0.00	0.00	0.00
43236600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43237300	Riverside	0.00%	0.00	0.00	0.00
43238100	Riverside	0.00%	0.00	0.00	0.00
43238200	Riverside	0.00%	0.00	0.00	0.00
43238300	Riverside	0.00%	0.00	0.00	0.00
43238400	Riverside	0.00%	0.00	0.00	0.00
43238500	Riverside	0.00%	0.00	0.00	0.00
43239100	Riverside	0.00%	0.00	0.00	0.00
43239200	Riverside	0.00%	0.00	0.00	0.00
43239300	Riverside	0.00%	0.00	0.00	0.00
43239400	Riverside	0.00%	0.00	0.00	0.00
43240100	Riverside	0.00%	0.00	0.00	0.00
43240200	Riverside	0.00%	0.00	0.00	0.00
43240300	Riverside	0.00%	0.00	0.00	0.00
43240400	Riverside	0.00%	0.00	0.00	0.00
43241100	Riverside	0.00%	0.00	0.00	0.00
43241200	Riverside	0.00%	0.00	0.00	0.00
43242100	Riverside	0.00%	0.00	0.00	0.00
43242200	Riverside	0.00%	0.00	0.00	0.00
43242300	Riverside	0.00%	0.00	0.00	0.00
43242400	Riverside	0.00%	0.00	0.00	0.00
43243100	Riverside	0.00%	0.00	0.00	0.00
43244100	Riverside	0.00%	0.00	0.00	0.00
43244200	Riverside	0.00%	0.00	0.00	0.00
43245100	Riverside	0.00%	0.00	0.00	0.00
43246100	Riverside	0.00%	0.00	0.00	0.00
43246200	Riverside	0.00%	0.00	0.00	0.00
43246300	Riverside	0.00%	0.00	0.00	0.00
43246400	Riverside	0.00%	0.00	0.00	0.00
43246500	Riverside	0.00%	0.00	0.00	0.00
43248100	Riverside	0.00%	0.00	0.00	0.00
43249100	Riverside	0.00%	0.00	0.00	0.00
43249200	Riverside	0.00%	0.00	0.00	0.00
43249300	Riverside	0.00%	0.00	0.00	0.00
43249400	Riverside	0.00%	0.00	0.00	0.00
43250100	Riverside	0.00%	0.00	0.00	0.00
43250200	Riverside	0.00%	0.00	0.00	0.00
43251100	Riverside	0.00%	0.00	0.00	0.00
43251200	Riverside	0.00%	0.00	0.00	0.00
43252100	Riverside	0.00%	0.00	0.00	0.00
43252200	Riverside	0.00%	0.00	0.00	0.00
43252300	Riverside	0.00%	0.00	0.00	0.00
43253100	Riverside	0.00%	0.00	0.00	0.00
43253200	Riverside	0.00%	0.00	0.00	0.00
43254100	Riverside	13.30%	275.02	277.68	282.65
43255100	Riverside	0.00%	0.00	0.00	0.00
43255200	Riverside	0.00%	0.00	0.00	0.00
43255300	Riverside	0.00%	0.00	0.00	0.00
43255400	Riverside	0.57%	10.28	10.39	10.60
43255500	Riverside	0.00%	0.00	0.00	0.00
43256500	Riverside	0.00%	0.00	0.00	0.00
43256600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43256900	Riverside	0.00%	0.00	0.00	0.00
43257100	Riverside	0.00%	0.00	0.00	0.00
43257200	Riverside	0.00%	0.00	0.00	0.00
43258100	Riverside	0.00%	0.00	0.00	0.00
43258200	Riverside	0.00%	0.00	0.00	0.00
43259100	Riverside	0.00%	0.00	0.00	0.00
43259200	Riverside	0.00%	0.00	0.00	0.00
43260100	Riverside	69.40%	1,121.44	1,135.32	1,161.27
43260200	Riverside	0.00%	0.00	0.00	0.00
43261100	Riverside	0.00%	0.00	0.00	0.00
43261300	Riverside	0.00%	0.00	0.00	0.00
43262300	Riverside	3.91%	0.00	0.00	0.00
43264100	Riverside	85.19%	4.26	5.11	6.70
43264200	Riverside	1.03%	0.00	0.00	0.00
43264300	Riverside	96.40%	0.00	0.00	0.00
43266100	Riverside	0.00%	0.00	0.00	0.00
<b>Totals</b>			<b>1,410.99</b>	<b>1,428.50</b>	<b>1,461.23</b>

**Extrapolation of Five Year Projection based on Annual Averages:**

Difference Current Year to Prior Year:	17.50	32.73
Number of Years within Years Estimated:	8	15
Annual Average Dwelling Units per Year Estimated:*	2.19	2.18

**Estimated Number of Dwelling Units January 1, 2019**

	Existing Units	Total Dwelling Units
As of January 1, 2012		1,411
Additional Dwelling Units Constructed 01/01/2012 to 01/01/2013		2.19
Additional Dwelling Units Constructed 01/01/2013 to 01/01/2014		2.19
Additional Dwelling Units Constructed 01/01/2014 to 01/01/2015		2.19
Additional Dwelling Units Constructed 01/01/2015 to 01/01/2016		2.19
Additional Dwelling Units Constructed 01/01/2016 to 01/01/2017		2.19
Additional Dwelling Units Constructed 01/01/2017 to 01/01/2018		2.19
Additional Dwelling Units Constructed 01/01/2018 to 01/01/2019		2.19
<b>Estimated Dwelling Units to Exist on January 1, 2019</b>		<b>1,426.31</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	Permitted Date	Total Dwelling Units
Dwelling Units Permitted 07/01/19 to 7/01/20		2.19
Dwelling Units Permitted 07/01/20 to 7/01/21		2.18
Dwelling Units Permitted 07/01/21 to 7/01/22		2.18
Dwelling Units Permitted 07/01/22 to 7/01/23		2.18
Dwelling Units Permitted 07/01/23 to 7/01/24		2.18
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>		<b>10.92</b>

\*Percentage in District was proved by SCAG by GIS Review



**SPECIAL DISTRICT FINANCING  
& ADMINISTRATION**

**437 West Grand Avenue  
Escondido CA 92025  
760 · 233 · 2630  
Fax 233 · 2631**

---

April 10, 2019

Jay Eastman  
Principal Planner  
City of Riverside  
3900 Main Street  
Riverside, CA 92522

Doug Darnell, AICP  
Senior Planner  
City of Riverside  
3900 Main Street  
Riverside, CA 92522

**RE: RESIDENTIAL DEVELOPMENT AND SQUARE FOOTAGE PROJECTIONS FOR THE MORENO VALLEY UNIFIED SCHOOL DISTRICT**

Special District Financing & Administration (“SDF A”) is a consultant to the Moreno Valley Unified School District (“MVUSD” or “School District”) tasked with updating the current School Facilities Needs Analysis (“SFNA”) which calculates the impact fee paid by residential development at the time of building permit issuance. The SFNA is only valid for a one-year period and as such is updated at a minimum on an annual basis. At this time we are asking the City of Riverside to review two elements of the report as to accuracy and completeness.

**Residential Development Projections for the Next Five-Year Period**

The statute requires that a projection of the residential development for the next five-year period by housing type be established. Housing type in the statute makes reference to single family detached dwelling units (“SFD”), single family attached dwelling units (“SFA”) and multi-family attached dwelling units (“MFA”). These last two categories can be further classified to include townhomes and condominiums for the SFA units and apartments for the MFA units. The five-year projection period for the current update will cover the fiscal years of 2019/20 through 2023/24.

In February of 2016, City staff provided revised Southern California Association of Governments (“SCAG”) data as approved by the City of Riverside, which details a projection of residential dwelling units divided by traffic analysis zones (TAZ). SDF A matched the TAZ numbers to the District-wide data provided by SCAG in April 2016, and used the SCAG assigned percentages to those TAZ numbers within the boundaries of the School District. This identification and assignment of the percentage is shown on the attached.

As the TAZ projections are on a calendar year basis and the five-year projection period is on a fiscal year basis the following assumptions were made; the TAZ calculation is as of January 1 in any given year, the figures report occupiable dwelling units and that there is a six month lag from permit date to saleable or occupancy date. Using the years provided in the TAZ data for 2012, 2020 and 2035, we extrapolated by the use of annual averages the number of dwelling units projected to be constructed for fiscal year 2019/20 through 2023/24. A summary of the data provided by the City of Riverside has been enclosed. The extrapolation using annual averages is detailed on the final page which shows an estimated number of dwelling units to be constructed for fiscal years 2019/20 through 2023/24 for the City of Riverside. On a separate attachment, the projection of dwelling units to be constructed for the same period within the County of Riverside and the City of Moreno Valley within the boundary of the Moreno Valley Unified School District using the same extrapolation using annual averages is also enclosed. The total dwelling units projected to be constructed within the next five-year period for the City of Riverside within the boundaries of the School District utilizing the base TAZ data and extrapolating by use of annual averages is 11 dwelling units which equates to an average of approximately 2.2 dwelling unit annually:

A review of the number of dwelling units constructed using year of construction as provided by the Riverside County Assessor for property within the School District was made and found to be irrelevant for the projection of dwelling units to be constructed in the next five-year period within the boundaries of the City of Riverside due to the small amount of developable property within this area.

Although the resulting total projected units for the City of Riverside, based solely on the data provided by the City, provides for the projection of 11 non-senior SFD dwelling units to be constructed in the next five-year period, we have modified our final projection to remain the same as was approved by the City for the past four years of zero (0). A final projection will be used to calculate the Level II Fee once comments are received from the City of Riverside, the City of Moreno Valley and the County of Riverside.

We are requesting that the City of Riverside provide comments or acceptance that these projections of residential dwelling units appear to be reasonable based on the expertise of City staff.

#### **Residential Livable Square Footage Projections for the Next Five-Year Period**

The calculation of the Level II and Level III Fee involves determining an average livable square footage for dwelling unit types to be constructed in the next five-year period. To determine this average, a review was made of the historical livable square footages of like dwelling units constructed in the previous five-year period as provided by the issuing agencies to the County of Riverside as shown on the County of Riverside Assessor data.

These historically-driven and currently constructing estimates have been provided to the County of Riverside and the City of Moreno Valley for their review and comment. The final averages will be used in the calculation of the Level II and Level III Fees. We are not asking the City of Riverside to provide comment or acceptance regarding these averages, if they appear to be reasonable based on the expertise of City staff, as the area within the boundaries of the City and the School District is not projected to produce residential development within the next five-year period.

#### **Clarity of Request**

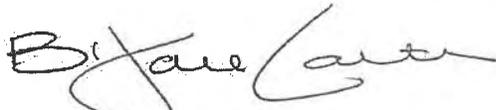
To make the acceptance of the proposed draft projection of dwelling units simple, we have included an area noting acceptance below. The addition of this area came at the request of other agencies. Please feel free to communicate any comments or questions through email or phone, if preferred. We will use the confirmation for our records.

Mr. Eastman / Mr. Darnell  
April 10, 2019  
Page 3

**Timing of Our Request**

We will be using this information to support the School Facilities Needs Analysis, which establishes the Level II and Level III Fees. The final draft of such report will be distributed to the City of Riverside, the City of Moreno Valley and the County of Riverside on or about May 1, 2019. We are respectfully asking that any comments or acceptance correspondence be received in our office by telephone, fax or U.S. Mail by **April 15, 2019**. Any communication received after this date will be included if possible but may need to be considered for additional updates to the MVUSD SFNA.

We thank you in advance for your efforts. Planning staff has been very helpful in providing data and discussing the projections. Please do not hesitate to call should you have any questions.



Barbara Hale-Carter  
Principal

<i>City of Riverside</i> <b>Confirmation of Projections</b>	
<b>Projection of Dwelling Units:</b>	<b>Fiscal Years 2019/20 through 2023/24:</b>
Single Family Detached	0
Single Family Attached	0
Multi-Family Attached	0
<b>Total Dwelling Units Projected:</b>	<b>0</b>
Confirmation that the above projections appear reasonable at this time.	
Printed Name: <i>DOUG DARNELL</i>	Signature: 
Title: <i>SENIOR PLANNER</i>	Date: <i>4/12/19</i>

Enclosures

- C: Mike Reynolds; Moreno Valley Unified School District  
Samer Alzubaidi; Moreno Valley Unified School District  
Wendy Wiles; Atkinson, Andelson, Loya, Ruud & Romo

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43262100	Moreno Valley	99.97%	1,424	1,462	1,524	1,524
43262200	Moreno Valley	99.98%	583	641	641	641
43262300	Moreno Valley	25.39%	1	4	14	17
43263100	Moreno Valley	3.73%	6	7	10	11
43263200	Moreno Valley	42.26%	180	231	350	377
43263300	Moreno Valley	93.84%	969	984	1,016	1,016
43264100	Moreno Valley	14.74%	1	2	2	2
43264200	Moreno Valley	98.97%	851	1,105	1,734	1,836
43264300	Moreno Valley	3.60%	0	0	1	1
43266100	Moreno Valley	99.30%	509	559	559	559
43266200	Moreno Valley	100.00%	2,295	2,602	2,897	2,897
43267100	Moreno Valley	83.37%	0	0	0	0
43267200	Moreno Valley	100.00%	836	836	836	836
43268200	Moreno Valley	0.60%	1	1	1	1
43269200	Moreno Valley	99.41%	534	625	836	869
43269300	Moreno Valley	3.18%	1	2	3	3
43270100	Moreno Valley	96.96%	0	0	0	0
43270200	Moreno Valley	100.00%	878	994	1,067	1,067
43271100	Moreno Valley	100.00%	799	896	896	896
43272100	Moreno Valley	100.00%	1,222	1,432	1,901	1,971
43273100	Moreno Valley	100.00%	1,638	1,722	1,910	1,938
43274100	Moreno Valley	100.00%	922	1,042	1,079	1,079
43275100	Moreno Valley	100.00%	1,350	1,557	2,023	2,093
43276100	Moreno Valley	100.00%	855	934	934	934
43277100	Moreno Valley	95.58%	0	0	0	0
43277200	Moreno Valley	100.00%	816	922	938	938
43278100	Moreno Valley	100.00%	1,151	1,304	1,421	1,421
43279100	Moreno Valley	100.00%	1,027	1,311	2,011	2,124
43280100	Moreno Valley	100.00%	867	891	944	952
43281100	Moreno Valley	100.00%	1,020	1,158	1,334	1,334
43282100	Moreno Valley	74.45%	884	1,011	1,291	1,323
43283100	Moreno Valley	100.00%	773	875	939	939
43284100	Moreno Valley	100.00%	98	106	106	106
43284200	Moreno Valley	100.00%	430	492	629	649
43285200	Moreno Valley	36.88%	150	241	457	490
43286100	Moreno Valley	100.00%	815	932	1,192	1,231
43287100	Moreno Valley	100.00%	857	983	1,266	1,308
43288100	Moreno Valley	100.00%	650	734	754	754
43288200	Moreno Valley	100.00%	522	536	567	572
43289100	Moreno Valley	100.00%	319	366	469	484
43289200	Moreno Valley	100.00%	166	252	465	500
43290100	Moreno Valley	100.00%	939	1,086	1,418	1,469
43290200	Moreno Valley	100.00%	366	493	808	859
43291100	Moreno Valley	100.00%	962	1,104	1,420	1,467
43292100	Moreno Valley	100.00%	667	722	848	867
43292200	Moreno Valley	100.00%	457	517	553	553
43293100	Moreno Valley	100.00%	833	875	969	983
43294100	Moreno Valley	100.00%	436	502	652	675
43295100	Moreno Valley	100.00%	444	504	567	567
43295200	Moreno Valley	100.00%	595	656	656	656
43296100	Moreno Valley	5.98%	20	23	30	31
43296200	Moreno Valley	96.53%	515	636	934	983
43297100	Moreno Valley	100.00%	1,296	1,483	1,898	1,959
43298100	Moreno Valley	19.80%	13	18	32	34
43298200	Moreno Valley	100.00%	266	320	449	469
43298300	Moreno Valley	100.00%	285	338	462	482

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43319100	Moreno Valley	60.75%	1,059	1,059	1,059	1,059
43319200	Moreno Valley	66.21%	962	1,019	1,145	1,161
43322100	Moreno Valley	100.00%	416	497	685	714
43322200	Moreno Valley	100.00%	888	905	942	948
43322300	Moreno Valley	100.00%	770	883	1,132	1,169
43324100	Moreno Valley	100.00%	1,345	1,605	2,223	2,320
43324200	Moreno Valley	100.00%	142	291	704	777
43324300	Moreno Valley	77.54%	751	875	1,160	1,203
43328100	Moreno Valley	22.98%	351	419	579	604
43328200	Moreno Valley	94.41%	189	222	298	311
43328300	Moreno Valley	1.40%	1	2	2	2
43330100	Moreno Valley	100.00%	824	934	1,193	1,234
43335100	Moreno Valley	1.56%	0	0	1	1
43336100	Moreno Valley	100.00%	217	258	362	379
43336200	Moreno Valley	100.00%	6	6	6	6
43338100	Moreno Valley	79.81%	170	245	245	245
43338200	Moreno Valley	100.00%	1,347	1,574	2,115	2,200
43338300	Moreno Valley	100.00%	98	98	98	98
43338400	Moreno Valley	100.00%	406	468	609	631
43344100	Moreno Valley	7.15%	1	1	1	1
43344200	Moreno Valley	82.09%	2	2	0	0
43447100	Moreno Valley	30.00%	2	4	15	15
43254100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43255400	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43260100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43262300	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264100	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264200	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43264300	Riverside	Used City of Riverside TAZ Data - See Separate Attachment				
43253200	Unincorporated	5.62%	70	81	101	102
43255300	Unincorporated	0.83%	17	18	19	19
43255400	Unincorporated	4.39%	87	90	95	97
43257100	Unincorporated	0.72%	5	5	6	6
43259100	Unincorporated	1.70%	1	1	2	2
43260100	Unincorporated	0.37%	6	6	7	7
43260200	Unincorporated	97.61%	153	190	281	307
43261200	Unincorporated	33.74%	0	0	0	0
43261300	Unincorporated	88.91%	145	148	154	155
43262300	Unincorporated	70.59%	1	12	39	46
43263100	Unincorporated	94.92%	158	188	260	277
43263200	Unincorporated	55.68%	238	304	462	496
43263300	Unincorporated	6.16%	64	65	67	67
43267100	Unincorporated	16.63%	0	0	0	0
43268100	Unincorporated	1.14%	0	0	0	0
43268200	Unincorporated	99.29%	210	243	243	243
43269100	Unincorporated	5.87%	6	8	11	12
43269200	Unincorporated	0.59%	3	4	5	5
43269300	Unincorporated	81.10%	29	39	67	73
43270100	Unincorporated	3.04%	0	0	0	0
43277100	Unincorporated	4.42%	0	0	0	0
43296100	Unincorporated	44.33%	152	171	224	233
43296200	Unincorporated	3.47%	19	23	34	35
43298100	Unincorporated	57.84%	37	53	93	100
43328100	Unincorporated	0.81%	12	15	20	21
43328300	Unincorporated	65.17%	61	70	91	94
43335100	Unincorporated	38.92%	0	9	37	37
43338100	Unincorporated	1.78%	4	5	5	5
43344200	Unincorporated	1.70%	0	0	0	0

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43445100	Unincorporated	5.58%	8	8	9	9
43447100	Unincorporated	1.32%	0	0	1	1
			<b>45,927</b>	<b>52,152</b>	<b>63,620</b>	<b>65,274</b>

**Extrapolation of Five Year Projections based on Annual Averages:**

Difference Current Year to Prior Year:	6,225	11,468	1,654
Number of Years within Years Estimated:	8	15	5
Annual Average Dwelling Units per Year Estimated:*	778.13	764.53	330.80

**Estimated Number of Dwelling Units January 1, 2019**

	City of	County of	Total
	Moreno Valley	Riverside	
<u>Existing Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>
As of January 1, 2012	44,441.00	1,486.00	45,927.00
Additional Dwelling Units Constructed 1/1/2012 to 1/1/2013	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2013 to 1/1/2014	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2014 to 1/1/2015	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2015 to 1/1/2016	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2016 to 1/1/2017	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2017 to 1/1/2018	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2018 to 1/1/2019	744.38	33.75	778.13
<b>Estimated Dwelling Units to Exist on January 1, 2019:***</b>	<b>49,651.63</b>	<b>1,722.25</b>	<b>51,373.88</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	City of	County of	Total
	Moreno Valley	Riverside	
<u>Permitted Date</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>	<u>Dwelling Units</u>
Dwelling Units Permitted 7/1/19 to 7/1/20	744.38	33.75	778.13
Dwelling Units Permitted 7/1/20 to 7/1/21	726.07	38.47	764.53
Dwelling Units Permitted 7/1/21 to 7/1/22	726.07	38.47	764.53
Dwelling Units Permitted 7/1/22 to 7/1/23	726.07	38.47	764.53
Dwelling Units Permitted 7/1/23 to 7/1/24	726.07	38.47	764.53
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>	<b>3,648.64</b>	<b>187.62</b>	<b>3,836.26</b>

\*The data provided by SCAG per TAZ was adopted at a Jurisdictional Level Only in April of 2016 to be used in the 2016 Regional Transportation Plan and Sustainable Communities Strategy.

\*\*Percentage in District was provided by SCAG by GIS review.

\*\*\*Totals may not sum due to rounding.

Moreno Valley Unified School District

Source: City of Riverside - Socio-Economic Data Approved with SCAG and WRCOG

**Manipulated to Provide the Area of the City of Riverside within the Boundaries of the Moreno Valley Unified School District**

Data provided: May 19, 2015 (Most recent as of February 2016)

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43132100	Riverside	0.00%	0.00	0.00	0.00
43136100	Riverside	0.00%	0.00	0.00	0.00
43142100	Riverside	0.00%	0.00	0.00	0.00
43142200	Riverside	0.00%	0.00	0.00	0.00
43142300	Riverside	0.00%	0.00	0.00	0.00
43144300	Riverside	0.00%	0.00	0.00	0.00
43144500	Riverside	0.00%	0.00	0.00	0.00
43178100	Riverside	0.00%	0.00	0.00	0.00
43182300	Riverside	0.00%	0.00	0.00	0.00
43185200	Riverside	0.00%	0.00	0.00	0.00
43186100	Riverside	0.00%	0.00	0.00	0.00
43186200	Riverside	0.00%	0.00	0.00	0.00
43187100	Riverside	0.00%	0.00	0.00	0.00
43187200	Riverside	0.00%	0.00	0.00	0.00
43190100	Riverside	0.00%	0.00	0.00	0.00
43191100	Riverside	0.00%	0.00	0.00	0.00
43191200	Riverside	0.00%	0.00	0.00	0.00
43192100	Riverside	0.00%	0.00	0.00	0.00
43192200	Riverside	0.00%	0.00	0.00	0.00
43192300	Riverside	0.00%	0.00	0.00	0.00
43193100	Riverside	0.00%	0.00	0.00	0.00
43194100	Riverside	0.00%	0.00	0.00	0.00
43194200	Riverside	0.00%	0.00	0.00	0.00
43195100	Riverside	0.00%	0.00	0.00	0.00
43195200	Riverside	0.00%	0.00	0.00	0.00
43195300	Riverside	0.00%	0.00	0.00	0.00
43196100	Riverside	0.00%	0.00	0.00	0.00
43196200	Riverside	0.00%	0.00	0.00	0.00
43196300	Riverside	0.00%	0.00	0.00	0.00
43196400	Riverside	0.00%	0.00	0.00	0.00
43197100	Riverside	0.00%	0.00	0.00	0.00
43197200	Riverside	0.00%	0.00	0.00	0.00
43197300	Riverside	0.00%	0.00	0.00	0.00
43197400	Riverside	0.00%	0.00	0.00	0.00
43198100	Riverside	0.00%	0.00	0.00	0.00
43198200	Riverside	0.00%	0.00	0.00	0.00
43198300	Riverside	0.00%	0.00	0.00	0.00
43198400	Riverside	0.00%	0.00	0.00	0.00
43198500	Riverside	0.00%	0.00	0.00	0.00
43199200	Riverside	0.00%	0.00	0.00	0.00
43199300	Riverside	0.00%	0.00	0.00	0.00
43199400	Riverside	0.00%	0.00	0.00	0.00
43199500	Riverside	0.00%	0.00	0.00	0.00
43200100	Riverside	0.00%	0.00	0.00	0.00
43201100	Riverside	0.00%	0.00	0.00	0.00
43201200	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43202100	Riverside	0.00%	0.00	0.00	0.00
43202200	Riverside	0.00%	0.00	0.00	0.00
43203100	Riverside	0.00%	0.00	0.00	0.00
43203200	Riverside	0.00%	0.00	0.00	0.00
43204100	Riverside	0.00%	0.00	0.00	0.00
43205100	Riverside	0.00%	0.00	0.00	0.00
43206100	Riverside	0.00%	0.00	0.00	0.00
43207100	Riverside	0.00%	0.00	0.00	0.00
43207200	Riverside	0.00%	0.00	0.00	0.00
43208100	Riverside	0.00%	0.00	0.00	0.00
43209100	Riverside	0.00%	0.00	0.00	0.00
43209200	Riverside	0.00%	0.00	0.00	0.00
43209300	Riverside	0.00%	0.00	0.00	0.00
43209400	Riverside	0.00%	0.00	0.00	0.00
43209500	Riverside	0.00%	0.00	0.00	0.00
43209600	Riverside	0.00%	0.00	0.00	0.00
43210100	Riverside	0.00%	0.00	0.00	0.00
43210200	Riverside	0.00%	0.00	0.00	0.00
43211100	Riverside	0.00%	0.00	0.00	0.00
43211200	Riverside	0.00%	0.00	0.00	0.00
43211300	Riverside	0.00%	0.00	0.00	0.00
43211400	Riverside	0.00%	0.00	0.00	0.00
43212100	Riverside	0.00%	0.00	0.00	0.00
43213100	Riverside	0.00%	0.00	0.00	0.00
43213200	Riverside	0.00%	0.00	0.00	0.00
43213300	Riverside	0.00%	0.00	0.00	0.00
43214100	Riverside	0.00%	0.00	0.00	0.00
43214200	Riverside	0.00%	0.00	0.00	0.00
43214300	Riverside	0.00%	0.00	0.00	0.00
43215100	Riverside	0.00%	0.00	0.00	0.00
43215200	Riverside	0.00%	0.00	0.00	0.00
43215300	Riverside	0.00%	0.00	0.00	0.00
43215400	Riverside	0.00%	0.00	0.00	0.00
43217100	Riverside	0.00%	0.00	0.00	0.00
43217200	Riverside	0.00%	0.00	0.00	0.00
43218100	Riverside	0.00%	0.00	0.00	0.00
43218200	Riverside	0.00%	0.00	0.00	0.00
43218300	Riverside	0.00%	0.00	0.00	0.00
43218400	Riverside	0.00%	0.00	0.00	0.00
43219100	Riverside	0.00%	0.00	0.00	0.00
43219200	Riverside	0.00%	0.00	0.00	0.00
43220200	Riverside	0.00%	0.00	0.00	0.00
43221100	Riverside	0.00%	0.00	0.00	0.00
43221200	Riverside	0.00%	0.00	0.00	0.00
43222100	Riverside	0.00%	0.00	0.00	0.00
43222200	Riverside	0.00%	0.00	0.00	0.00
43222300	Riverside	0.00%	0.00	0.00	0.00
43223100	Riverside	0.00%	0.00	0.00	0.00
43223200	Riverside	0.00%	0.00	0.00	0.00
43223300	Riverside	0.00%	0.00	0.00	0.00
43223400	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43223500	Riverside	0.00%	0.00	0.00	0.00
43223600	Riverside	0.00%	0.00	0.00	0.00
43223700	Riverside	0.00%	0.00	0.00	0.00
43223800	Riverside	0.00%	0.00	0.00	0.00
43223900	Riverside	0.00%	0.00	0.00	0.00
43224100	Riverside	0.00%	0.00	0.00	0.00
43224200	Riverside	0.00%	0.00	0.00	0.00
43224300	Riverside	0.00%	0.00	0.00	0.00
43225100	Riverside	0.00%	0.00	0.00	0.00
43225200	Riverside	0.00%	0.00	0.00	0.00
43225300	Riverside	0.00%	0.00	0.00	0.00
43227100	Riverside	0.00%	0.00	0.00	0.00
43227200	Riverside	0.00%	0.00	0.00	0.00
43227300	Riverside	0.00%	0.00	0.00	0.00
43227400	Riverside	0.00%	0.00	0.00	0.00
43228100	Riverside	0.00%	0.00	0.00	0.00
43228200	Riverside	0.00%	0.00	0.00	0.00
43228300	Riverside	0.00%	0.00	0.00	0.00
43228400	Riverside	0.00%	0.00	0.00	0.00
43229100	Riverside	0.00%	0.00	0.00	0.00
43229200	Riverside	0.00%	0.00	0.00	0.00
43230100	Riverside	0.00%	0.00	0.00	0.00
43230200	Riverside	0.00%	0.00	0.00	0.00
43230300	Riverside	0.00%	0.00	0.00	0.00
43230400	Riverside	0.00%	0.00	0.00	0.00
43231100	Riverside	0.00%	0.00	0.00	0.00
43231200	Riverside	0.00%	0.00	0.00	0.00
43231300	Riverside	0.00%	0.00	0.00	0.00
43231400	Riverside	0.00%	0.00	0.00	0.00
43231500	Riverside	0.00%	0.00	0.00	0.00
43231600	Riverside	0.00%	0.00	0.00	0.00
43231700	Riverside	0.00%	0.00	0.00	0.00
43231800	Riverside	0.00%	0.00	0.00	0.00
43232100	Riverside	0.00%	0.00	0.00	0.00
43232200	Riverside	0.00%	0.00	0.00	0.00
43233100	Riverside	0.00%	0.00	0.00	0.00
43233200	Riverside	0.00%	0.00	0.00	0.00
43233300	Riverside	0.00%	0.00	0.00	0.00
43234100	Riverside	0.00%	0.00	0.00	0.00
43234200	Riverside	0.00%	0.00	0.00	0.00
43235100	Riverside	0.00%	0.00	0.00	0.00
43235200	Riverside	0.00%	0.00	0.00	0.00
43235300	Riverside	0.00%	0.00	0.00	0.00
43235400	Riverside	0.00%	0.00	0.00	0.00
43235500	Riverside	0.00%	0.00	0.00	0.00
43236100	Riverside	0.00%	0.00	0.00	0.00
43236200	Riverside	0.00%	0.00	0.00	0.00
43236300	Riverside	0.00%	0.00	0.00	0.00
43236400	Riverside	0.00%	0.00	0.00	0.00
43236500	Riverside	0.00%	0.00	0.00	0.00
43236600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43237300	Riverside	0.00%	0.00	0.00	0.00
43238100	Riverside	0.00%	0.00	0.00	0.00
43238200	Riverside	0.00%	0.00	0.00	0.00
43238300	Riverside	0.00%	0.00	0.00	0.00
43238400	Riverside	0.00%	0.00	0.00	0.00
43238500	Riverside	0.00%	0.00	0.00	0.00
43239100	Riverside	0.00%	0.00	0.00	0.00
43239200	Riverside	0.00%	0.00	0.00	0.00
43239300	Riverside	0.00%	0.00	0.00	0.00
43239400	Riverside	0.00%	0.00	0.00	0.00
43240100	Riverside	0.00%	0.00	0.00	0.00
43240200	Riverside	0.00%	0.00	0.00	0.00
43240300	Riverside	0.00%	0.00	0.00	0.00
43240400	Riverside	0.00%	0.00	0.00	0.00
43241100	Riverside	0.00%	0.00	0.00	0.00
43241200	Riverside	0.00%	0.00	0.00	0.00
43242100	Riverside	0.00%	0.00	0.00	0.00
43242200	Riverside	0.00%	0.00	0.00	0.00
43242300	Riverside	0.00%	0.00	0.00	0.00
43242400	Riverside	0.00%	0.00	0.00	0.00
43243100	Riverside	0.00%	0.00	0.00	0.00
43244100	Riverside	0.00%	0.00	0.00	0.00
43244200	Riverside	0.00%	0.00	0.00	0.00
43245100	Riverside	0.00%	0.00	0.00	0.00
43246100	Riverside	0.00%	0.00	0.00	0.00
43246200	Riverside	0.00%	0.00	0.00	0.00
43246300	Riverside	0.00%	0.00	0.00	0.00
43246400	Riverside	0.00%	0.00	0.00	0.00
43246500	Riverside	0.00%	0.00	0.00	0.00
43248100	Riverside	0.00%	0.00	0.00	0.00
43249100	Riverside	0.00%	0.00	0.00	0.00
43249200	Riverside	0.00%	0.00	0.00	0.00
43249300	Riverside	0.00%	0.00	0.00	0.00
43249400	Riverside	0.00%	0.00	0.00	0.00
43250100	Riverside	0.00%	0.00	0.00	0.00
43250200	Riverside	0.00%	0.00	0.00	0.00
43251100	Riverside	0.00%	0.00	0.00	0.00
43251200	Riverside	0.00%	0.00	0.00	0.00
43252100	Riverside	0.00%	0.00	0.00	0.00
43252200	Riverside	0.00%	0.00	0.00	0.00
43252300	Riverside	0.00%	0.00	0.00	0.00
43253100	Riverside	0.00%	0.00	0.00	0.00
43253200	Riverside	0.00%	0.00	0.00	0.00
43254100	Riverside	13.30%	275.02	277.68	282.65
43255100	Riverside	0.00%	0.00	0.00	0.00
43255200	Riverside	0.00%	0.00	0.00	0.00
43255300	Riverside	0.00%	0.00	0.00	0.00
43255400	Riverside	0.57%	10.28	10.39	10.60
43255500	Riverside	0.00%	0.00	0.00	0.00
43256500	Riverside	0.00%	0.00	0.00	0.00
43256600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43256900	Riverside	0.00%	0.00	0.00	0.00
43257100	Riverside	0.00%	0.00	0.00	0.00
43257200	Riverside	0.00%	0.00	0.00	0.00
43258100	Riverside	0.00%	0.00	0.00	0.00
43258200	Riverside	0.00%	0.00	0.00	0.00
43259100	Riverside	0.00%	0.00	0.00	0.00
43259200	Riverside	0.00%	0.00	0.00	0.00
43260100	Riverside	69.40%	1,121.44	1,135.32	1,161.27
43260200	Riverside	0.00%	0.00	0.00	0.00
43261100	Riverside	0.00%	0.00	0.00	0.00
43261300	Riverside	0.00%	0.00	0.00	0.00
43262300	Riverside	3.91%	0.00	0.00	0.00
43264100	Riverside	85.19%	4.26	5.11	6.70
43264200	Riverside	1.03%	0.00	0.00	0.00
43264300	Riverside	96.40%	0.00	0.00	0.00
43266100	Riverside	0.00%	0.00	0.00	0.00
<b>Totals</b>			<b>1,410.99</b>	<b>1,428.50</b>	<b>1,461.23</b>

**Extrapolation of Five Year Projection based on Annual Averages:**

Difference Current Year to Prior Year:	17.50	32.73
Number of Years within Years Estimated:	8	15
Annual Average Dwelling Units per Year Estimated:*	2.19	2.18

**Estimated Number of Dwelling Units January 1, 2019**

	Existing Units	Total Dwelling Units
As of January 1, 2012		1,411
Additional Dwelling Units Constructed 01/01/2012 to 01/01/2013		2.19
Additional Dwelling Units Constructed 01/01/2013 to 01/01/2014		2.19
Additional Dwelling Units Constructed 01/01/2014 to 01/01/2015		2.19
Additional Dwelling Units Constructed 01/01/2015 to 01/01/2016		2.19
Additional Dwelling Units Constructed 01/01/2016 to 01/01/2017		2.19
Additional Dwelling Units Constructed 01/01/2017 to 01/01/2018		2.19
Additional Dwelling Units Constructed 01/01/2018 to 01/01/2019		2.19
<b>Estimated Dwelling Units to Exist on January 1, 2019</b>		<b>1,426.31</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	Permitted Date	Total Dwelling Units
Dwelling Units Permitted 07/01/19 to 7/01/20		2.19
Dwelling Units Permitted 07/01/20 to 7/01/21		2.18
Dwelling Units Permitted 07/01/21 to 7/01/22		2.18
Dwelling Units Permitted 07/01/22 to 7/01/23		2.18
Dwelling Units Permitted 07/01/23 to 7/01/24		2.18
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>		<b>10.92</b>

\*Percentage in District was proved by SCAG by GIS Review



SPECIAL DISTRICT FINANCING  
& ADMINISTRATION

437 W. Grand Avenue  
Escondido CA 92025  
760 • 233 • 2630  
F a x • 233 • 2631

- Via Email Only -

April 11, 2019

Mr. Richard Fairhurst  
Senior Transportation Planner  
County of Riverside  
Transportation Department  
4080 Lemon Street, 8<sup>th</sup> Floor  
Riverside, CA 92502

**RE: RESIDENTIAL DEVELOPMENT AND SQUARE FOOTAGE PROJECTIONS  
FOR THE MORENO VALLEY UNIFIED SCHOOL DISTRICT**

Special District Financing & Administration ("SDFA") is a consultant to the Moreno Valley Unified School District ("MVUSD") tasked with updating the current School Facilities Needs Analysis ("SFNA") which calculates the impact fee paid by residential development at the time of building permit issuance. The SFNA is only valid for a one-year period and as such is updated at a minimum on an annual basis. At this time we are asking the County of Riverside to review two elements of the report as to accuracy and completeness.

Residential Development Projections for the Next Five-Year Period

The statute requires that a projection of the residential development for the next five-year period by housing type be established. Housing type in the statute makes reference to single family detached dwelling units ("SFD"), single family attached dwelling units ("SFA") and multi-family attached dwelling units ("MFA"). These last two categories can be further classified to include townhomes and condominiums for the SFA units and apartments for the MFA units. The five-year projection period for the current update will cover the fiscal years of 2019/20 through 2023/24.

Data from the County of Riverside Transportation Department was provided April 2018. This information, along with historical activity, were reviewed and in conjunction with conversations held, the resulting projection of residential development for the next five-year period for the property within the County of Riverside and the Moreno Valley Unified School District was established as detailed below.

Southern California Department of Governments

The Southern California Association of Governments ("SCAG") was contacted. They provided a projection of residential dwelling units ("2016 Regional Transportation Plan and Sustainable Communities Strategy Growth Forecast") adopted in April of 2016, provided in April of 2016. (Please note; SCAG projections for the area of the School District within the City of Riverside are sourced from the City of Riverside. These separate projections are enclosed.) Because the SCAG projections are on a calendar-year basis and the five-year projection period is on a fiscal-year basis, the following assumptions were made; the SCAG calculations are as of January 1 in any given year, are reporting on occupiable dwelling units and there is a six-month lag from permit date to saleable or occupancy date. Therefore, the SCAG 2020 through 2024 projection is being used to project permit

issuance from fiscal year 2019/20 through 2023/24. The enclosed resulting projections show the calculation of an estimated number of dwelling units to be constructed from fiscal years 2019/20 through 2023/24 for both the MVUSD in total and for the County of Riverside. The total projected to be constructed within the next five-year period for the County of Riverside is 188 dwelling units. The total projected to be constructed with the next five years for the MVUSD is 3,848 dwelling units (3,649 within the City of Moreno Valley, 188 within the County of Riverside and 11 within the City of Riverside).

#### Historical Building Activity

A review was made of historical activity for the prior five calendar years through review of MVUSD certificate of compliance activity for new dwelling units located within the County of Riverside. There were two certificates of compliance issued for SFD dwelling units for the past five full fiscal years. Using history as a projection of the next five year period, two SFD dwelling units being projected for the next five-year period. This projected total is much lower than the projection derived from with the County of Riverside Approved Projects Listing analyzed in 2017 of a potential 169 dwelling units or data provided by SCAG detailing 188 dwelling units.

#### Discussions with County Staff

Discussions with County Staff on the status of the projects on both the Approved Residential Project Listing and the Tentative Residential Project Listing allowed us to understand that the timing of the development of the dwelling units on both listings to be uncertain at this time.

#### Final Draft Projections

We have concluded that the most conservative estimate was derived from historical activity. In summary, a projection of 2 single family detached dwelling units, zero (0) single family attached dwelling units, and zero (0) multi-family attached dwelling units are estimated to be constructed within the boundaries of the County of Riverside and the MVUSD within the next five-year period. A final projection will be used to calculate the Level II Fee once comments are received from the City of Moreno Valley, the City of Riverside and the County of Riverside.

We are requesting that the County of Riverside provide comments or acceptance that these projections of residential dwelling units appear to be reasonable based on the expertise of County Staff.

#### Residential Livable Square Footage Projections for the Next Five-Year Period

The calculation of the Level II and Level III Fee also involves determining an average assessable square footage for dwelling unit types to be constructed in the next five-year period. To determine this average, a review was made of the historical assessable square footages of like dwelling units constructed in the previous five-year period as provided by the issuing agencies to the County of Riverside as shown on the County of Riverside Assessor data. The average square footage of dwelling units constructed in 2018 was 2,597 square feet for SFD dwelling units for the total area of the School District. For the area projected to develop within the County of Riverside, certificates of compliance issued by the School District for the past five full fiscal years were reviewed which provided an average of 1,554 assessable square feet (1 dwelling unit at 1,920 square feet and 1 dwelling unit at 1,188 square feet). A projection of average square feet for SFA and MFA dwelling units is not discussed as none are projected for the area within both the School District and the County of Riverside.

The historical average calculated from certificates of compliance issued of 1,554 square feet for SFD units is proposed to be used in the calculation of the Level II and Level III Fees. We are asking the County of Riverside to provide comment or acceptance that this averages appear to be reasonable based on the expertise of County staff.

Clarity of Request

To make the acceptance of the proposed draft projection of dwelling units and average dwelling unit sizes simple, we have included an area noting County acceptance below. The addition of this area came at the request of other agencies. Please feel free to communicate any comments or questions through email or phone, if preferred. We will use the confirmation for our records.

Timing of Our Request

We will be using this information to support the School Facilities Needs Analysis, which establishes the Level II and Level III Fees. The final draft of such report will be distributed to the City of Riverside, the City of Moreno Valley and the County of Riverside on or about May 3, 2019. We are respectfully asking that any comments or acceptance correspondence be received in our office by telephone, fax or U.S. Mail by **April 22, 2019**. Any communication received after this date will be considered for additional updates to the MVUSD SFNA.

We thank you in advance for your efforts. Please do not hesitate to call should you have any questions.



Barbara Hale-Carter  
Principal

<b>County of Riverside            Residential Development Projections            Fiscal Years 2019/20 through 2023/24</b>		
<b>Projection of Dwelling Units by Housing Type:</b>	<b>Proposed:</b>	<b>Confirmed or Modified:</b>
Single Family Detached	2	11
Single Family Attached	0	0
Multi-Family Attached	0	0
<b>Total Dwelling Units Projected:</b>	<b>2</b>	<b>11</b>
<b>Projection of Average Assessable Square Feet by Housing Type:</b>	<b>Proposed:</b>	<b>Confirmed or Modified:</b>
Single Family Detached	1,554	1,200
Single Family Attached	NA	NA
Multi-Family Attached	NA	NA
<p>Thank you for your review. Please either confirm that the proposed projections appear reasonable at this time by inserting a check-mark or modify the projections by entering the modified figures in the column heading "Confirmed or Modified." Please sign and date below.</p>		
<b>Printed Name:</b>  Richard Dale Fairhurst	<b>Signature:</b>  	
<b>Title:</b>  Senior Transportation Planner	<b>Date:</b>  April 11, 2019	

**Enclosures**

- C: Mike Reynolds; Moreno Valley Unified School District  
 Samer Alzubaidi; Moreno Valley Unified School District  
 Wendy Wiles; Atkinson, Andelson, Loya, Ruud & Romo

School District: **Moreno Valley Unified School District**

Local Planning Authority Representative; Signature, Date, Printed Name, Title and phone/email required if no other supporting documentation is submitted

*Richard D. Fairhurst* 4/11/19  
Richard Fairhurst, Senior Transportation Planner  
phone: (951) 955-6757 e-mail: rfairhur@rvco.org

County: **Riverside**

Enrollment Year: **2018/19**

A. Tract Map Number	B. Development - Unincorporated Area of Riv. County	C. Tract Map Approval Date	D. Tract Map Expiration Date	E. Tract Map Status	F. Number of Approved Dwelling Units	G. Number of Permits Pulled or Occupied Dwelling Units to Date (on SAB 50-01)	H. Total Number of Eligible Dwelling Units to be Reported to Date (on SAB 50-01)	Comments (Optional)
---------------------	---	----------------------------	------------------------------	---------------------	--------------------------------------	---	--	---------------------

Tract approval and permit issuance data was updated on April 10, 2019

There are no tentative tracts within the Moreno Valley Unified School District that have been approved since 1997 that have not expired and that are still pending recordation or construction.

The Gateway Center Specific Plan - SP 250 - was approved on 8/15/2000 for 553 units, but the only tract filed within it expired on 9/19/2004 and since that time nothing has been filed. Therefore I am currently not projecting that this Specific Plan will start construction during the next 5 years.  
From July 1, 2014 to the present, there were 11 residential permits granted final occupancy, 1 residential permit currently in an issued status and 3 permits pending issuance on parcels located outside of tracts approved since 1997. I therefore will project that 11 SFD units like these will be built in the next 5 years.  
My total projection over the next 5 years is for 11 single family detached residential dwelling units within the unincorporated county in the MVUSD boundaries.

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43262100	Moreno Valley	99.97%	1,424	1,462	1,524	1,524
43262200	Moreno Valley	99.98%	583	641	641	641
43262300	Moreno Valley	25.39%	1	4	14	17
43263100	Moreno Valley	3.73%	6	7	10	11
43263200	Moreno Valley	42.26%	180	231	350	377
43263300	Moreno Valley	93.84%	969	984	1,016	1,016
43264100	Moreno Valley	14.74%	1	2	2	2
43264200	Moreno Valley	98.97%	851	1,105	1,734	1,836
43264300	Moreno Valley	3.60%	0	0	1	1
43266100	Moreno Valley	99.30%	509	559	559	559
43266200	Moreno Valley	100.00%	2,295	2,602	2,897	2,897
43267100	Moreno Valley	83.37%	0	0	0	0
43267200	Moreno Valley	100.00%	836	836	836	836
43268200	Moreno Valley	0.60%	1	1	1	1
43269200	Moreno Valley	99.41%	534	625	836	869
43269300	Moreno Valley	3.18%	1	2	3	3
43270100	Moreno Valley	96.96%	0	0	0	0
43270200	Moreno Valley	100.00%	878	994	1,067	1,067
43271100	Moreno Valley	100.00%	799	896	896	896
43272100	Moreno Valley	100.00%	1,222	1,432	1,901	1,971
43273100	Moreno Valley	100.00%	1,638	1,722	1,910	1,938
43274100	Moreno Valley	100.00%	922	1,042	1,079	1,079
43275100	Moreno Valley	100.00%	1,350	1,557	2,023	2,093
43276100	Moreno Valley	100.00%	855	934	934	934
43277100	Moreno Valley	95.58%	0	0	0	0
43277200	Moreno Valley	100.00%	816	922	938	938
43278100	Moreno Valley	100.00%	1,151	1,304	1,421	1,421
43279100	Moreno Valley	100.00%	1,027	1,311	2,011	2,124
43280100	Moreno Valley	100.00%	867	891	944	952
43281100	Moreno Valley	100.00%	1,020	1,158	1,334	1,334
43282100	Moreno Valley	74.45%	884	1,011	1,291	1,323
43283100	Moreno Valley	100.00%	773	875	939	939
43284100	Moreno Valley	100.00%	98	106	106	106
43284200	Moreno Valley	100.00%	430	492	629	649
43285200	Moreno Valley	36.88%	150	241	457	490
43286100	Moreno Valley	100.00%	815	932	1,192	1,231
43287100	Moreno Valley	100.00%	857	983	1,266	1,308
43288100	Moreno Valley	100.00%	650	734	754	754
43288200	Moreno Valley	100.00%	522	536	567	572
43289100	Moreno Valley	100.00%	319	366	469	484
43289200	Moreno Valley	100.00%	166	252	465	500
43290100	Moreno Valley	100.00%	939	1,086	1,418	1,469
43290200	Moreno Valley	100.00%	366	493	808	859
43291100	Moreno Valley	100.00%	962	1,104	1,420	1,467
43292100	Moreno Valley	100.00%	667	722	848	867
43292200	Moreno Valley	100.00%	457	517	553	553
43293100	Moreno Valley	100.00%	833	875	969	983
43294100	Moreno Valley	100.00%	436	502	652	675
43295100	Moreno Valley	100.00%	444	504	567	567
43295200	Moreno Valley	100.00%	595	656	656	656
43296100	Moreno Valley	5.98%	20	23	30	31
43296200	Moreno Valley	96.53%	515	636	934	983
43297100	Moreno Valley	100.00%	1,296	1,483	1,898	1,959
43298100	Moreno Valley	19.80%	13	18	32	34
43298200	Moreno Valley	100.00%	266	320	449	469
43298300	Moreno Valley	100.00%	285	338	462	482

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43319100	Moreno Valley	60.75%	1,059	1,059	1,059	1,059
43319200	Moreno Valley	66.21%	962	1,019	1,145	1,161
43322100	Moreno Valley	100.00%	416	497	685	714
43322200	Moreno Valley	100.00%	888	905	942	948
43322300	Moreno Valley	100.00%	770	883	1,132	1,169
43324100	Moreno Valley	100.00%	1,345	1,605	2,223	2,320
43324200	Moreno Valley	100.00%	142	291	704	777
43324300	Moreno Valley	77.54%	751	875	1,160	1,203
43328100	Moreno Valley	22.98%	351	419	579	604
43328200	Moreno Valley	94.41%	189	222	298	311
43328300	Moreno Valley	1.40%	1	2	2	2
43330100	Moreno Valley	100.00%	824	934	1,193	1,234
43335100	Moreno Valley	1.56%	0	0	1	1
43336100	Moreno Valley	100.00%	217	258	362	379
43336200	Moreno Valley	100.00%	6	6	6	6
43338100	Moreno Valley	79.81%	170	245	245	245
43338200	Moreno Valley	100.00%	1,347	1,574	2,115	2,200
43338300	Moreno Valley	100.00%	98	98	98	98
43338400	Moreno Valley	100.00%	406	468	609	631
43344100	Moreno Valley	7.15%	1	1	1	1
43344200	Moreno Valley	82.09%	2	2	0	0
43447100	Moreno Valley	30.00%	2	4	15	15
43254100	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43255400	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43260100	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43262300	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43264100	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43264200	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43264300	Riverside		Used City of Riverside TAZ Data - See Separate Attachment			
43253200	Unincorporated	5.62%	70	81	101	102
43255300	Unincorporated	0.83%	17	18	19	19
43255400	Unincorporated	4.39%	87	90	95	97
43257100	Unincorporated	0.72%	5	5	6	6
43259100	Unincorporated	1.70%	1	1	2	2
43260100	Unincorporated	0.37%	6	6	7	7
43260200	Unincorporated	97.61%	153	190	281	307
43261200	Unincorporated	33.74%	0	0	0	0
43261300	Unincorporated	88.91%	145	148	154	155
43262300	Unincorporated	70.59%	1	12	39	46
43263100	Unincorporated	94.92%	158	188	260	277
43263200	Unincorporated	55.68%	238	304	462	496
43263300	Unincorporated	6.16%	64	65	67	67
43267100	Unincorporated	16.63%	0	0	0	0
43268100	Unincorporated	1.14%	0	0	0	0
43268200	Unincorporated	99.29%	210	243	243	243
43269100	Unincorporated	5.87%	6	8	11	12
43269200	Unincorporated	0.59%	3	4	5	5
43269300	Unincorporated	81.10%	29	39	67	73
43270100	Unincorporated	3.04%	0	0	0	0
43277100	Unincorporated	4.42%	0	0	0	0
43296100	Unincorporated	44.33%	152	171	224	233
43296200	Unincorporated	3.47%	19	23	34	35
43298100	Unincorporated	57.84%	37	53	93	100
43328100	Unincorporated	0.81%	12	15	20	21
43328300	Unincorporated	65.17%	61	70	91	94
43335100	Unincorporated	38.92%	0	9	37	37
43338100	Unincorporated	1.78%	4	5	5	5
43344200	Unincorporated	1.70%	0	0	0	0

**Moreno Valley Unified School District**

Source: Southern California Association of Governments

SCAG's 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Growth Forecast adopted April 2016

Data Date: April 2016 (Most Recent Available Data)

Tier2 (TAZ)	Location	Percent in District **	2012 Households	2020 Households	2035 Households	2040 Households
43445100	Unincorporated	5.58%	8	8	9	9
43447100	Unincorporated	1.32%	0	0	1	1
			<b>45,927</b>	<b>52,152</b>	<b>63,620</b>	<b>65,274</b>

**Extrapolation of Five Year Projections based on Annual Averages:**

Difference Current Year to Prior Year:	6,225	11,468	1,654
Number of Years within Years Estimated:	8	15	5
Annual Average Dwelling Units per Year Estimated:*	778.13	764.53	330.80

**Estimated Number of Dwelling Units January 1, 2019**

	City of	County of	Total
	Moreno Valley	Riverside	
Existing Units	Dwelling Units	Dwelling Units	Dwelling Units
As of January 1, 2012	44,441.00	1,486.00	45,927.00
Additional Dwelling Units Constructed 1/1/2012 to 1/1/2013	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2013 to 1/1/2014	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2014 to 1/1/2015	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2015 to 1/1/2016	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2016 to 1/1/2017	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2017 to 1/1/2018	744.38	33.75	778.13
Additional Dwelling Units Constructed 1/1/2018 to 1/1/2019	744.38	33.75	778.13
<b>Estimated Dwelling Units to Exist on January 1, 2019:***</b>	<b>49,651.63</b>	<b>1,722.25</b>	<b>51,373.88</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	City of	County of	Total
	Moreno Valley	Riverside	
Permitted Date	Dwelling Units	Dwelling Units	Dwelling Units
Dwelling Units Permitted 7/1/19 to 7/1/20	744.38	33.75	778.13
Dwelling Units Permitted 7/1/20 to 7/1/21	726.07	38.47	764.53
Dwelling Units Permitted 7/1/21 to 7/1/22	726.07	38.47	764.53
Dwelling Units Permitted 7/1/22 to 7/1/23	726.07	38.47	764.53
Dwelling Units Permitted 7/1/23 to 7/1/24	726.07	38.47	764.53
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>	<b>3,648.64</b>	<b>187.62</b>	<b>3,836.26</b>

\*The data provided by SCAG per TAZ was adopted at a Jurisdictional Level Only in April of 2016 to be used in the 2016 Regional Transportation Plan and Sustainable Communities Strategy.

\*\*Percentage in District was provided by SCAG by GIS review.

\*\*\*Totals may not sum due to rounding.

Moreno Valley Unified School District

Source: City of Riverside - Socio-Economic Data Approved with SCAG and WRCOG

**Manipulated to Provide the Area of the City of Riverside within the Boundaries of the Moreno Valley Unified School District**

Data provided: May 19, 2015 (Most recent as of February 2016)

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43132100	Riverside	0.00%	0.00	0.00	0.00
43136100	Riverside	0.00%	0.00	0.00	0.00
43142100	Riverside	0.00%	0.00	0.00	0.00
43142200	Riverside	0.00%	0.00	0.00	0.00
43142300	Riverside	0.00%	0.00	0.00	0.00
43144300	Riverside	0.00%	0.00	0.00	0.00
43144500	Riverside	0.00%	0.00	0.00	0.00
43178100	Riverside	0.00%	0.00	0.00	0.00
43182300	Riverside	0.00%	0.00	0.00	0.00
43185200	Riverside	0.00%	0.00	0.00	0.00
43186100	Riverside	0.00%	0.00	0.00	0.00
43186200	Riverside	0.00%	0.00	0.00	0.00
43187100	Riverside	0.00%	0.00	0.00	0.00
43187200	Riverside	0.00%	0.00	0.00	0.00
43190100	Riverside	0.00%	0.00	0.00	0.00
43191100	Riverside	0.00%	0.00	0.00	0.00
43191200	Riverside	0.00%	0.00	0.00	0.00
43192100	Riverside	0.00%	0.00	0.00	0.00
43192200	Riverside	0.00%	0.00	0.00	0.00
43192300	Riverside	0.00%	0.00	0.00	0.00
43193100	Riverside	0.00%	0.00	0.00	0.00
43194100	Riverside	0.00%	0.00	0.00	0.00
43194200	Riverside	0.00%	0.00	0.00	0.00
43195100	Riverside	0.00%	0.00	0.00	0.00
43195200	Riverside	0.00%	0.00	0.00	0.00
43195300	Riverside	0.00%	0.00	0.00	0.00
43196100	Riverside	0.00%	0.00	0.00	0.00
43196200	Riverside	0.00%	0.00	0.00	0.00
43196300	Riverside	0.00%	0.00	0.00	0.00
43196400	Riverside	0.00%	0.00	0.00	0.00
43197100	Riverside	0.00%	0.00	0.00	0.00
43197200	Riverside	0.00%	0.00	0.00	0.00
43197300	Riverside	0.00%	0.00	0.00	0.00
43197400	Riverside	0.00%	0.00	0.00	0.00
43198100	Riverside	0.00%	0.00	0.00	0.00
43198200	Riverside	0.00%	0.00	0.00	0.00
43198300	Riverside	0.00%	0.00	0.00	0.00
43198400	Riverside	0.00%	0.00	0.00	0.00
43198500	Riverside	0.00%	0.00	0.00	0.00
43199200	Riverside	0.00%	0.00	0.00	0.00
43199300	Riverside	0.00%	0.00	0.00	0.00
43199400	Riverside	0.00%	0.00	0.00	0.00
43199500	Riverside	0.00%	0.00	0.00	0.00
43200100	Riverside	0.00%	0.00	0.00	0.00
43201100	Riverside	0.00%	0.00	0.00	0.00
43201200	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43202100	Riverside	0.00%	0.00	0.00	0.00
43202200	Riverside	0.00%	0.00	0.00	0.00
43203100	Riverside	0.00%	0.00	0.00	0.00
43203200	Riverside	0.00%	0.00	0.00	0.00
43204100	Riverside	0.00%	0.00	0.00	0.00
43205100	Riverside	0.00%	0.00	0.00	0.00
43206100	Riverside	0.00%	0.00	0.00	0.00
43207100	Riverside	0.00%	0.00	0.00	0.00
43207200	Riverside	0.00%	0.00	0.00	0.00
43208100	Riverside	0.00%	0.00	0.00	0.00
43209100	Riverside	0.00%	0.00	0.00	0.00
43209200	Riverside	0.00%	0.00	0.00	0.00
43209300	Riverside	0.00%	0.00	0.00	0.00
43209400	Riverside	0.00%	0.00	0.00	0.00
43209500	Riverside	0.00%	0.00	0.00	0.00
43209600	Riverside	0.00%	0.00	0.00	0.00
43210100	Riverside	0.00%	0.00	0.00	0.00
43210200	Riverside	0.00%	0.00	0.00	0.00
43211100	Riverside	0.00%	0.00	0.00	0.00
43211200	Riverside	0.00%	0.00	0.00	0.00
43211300	Riverside	0.00%	0.00	0.00	0.00
43211400	Riverside	0.00%	0.00	0.00	0.00
43212100	Riverside	0.00%	0.00	0.00	0.00
43213100	Riverside	0.00%	0.00	0.00	0.00
43213200	Riverside	0.00%	0.00	0.00	0.00
43213300	Riverside	0.00%	0.00	0.00	0.00
43214100	Riverside	0.00%	0.00	0.00	0.00
43214200	Riverside	0.00%	0.00	0.00	0.00
43214300	Riverside	0.00%	0.00	0.00	0.00
43215100	Riverside	0.00%	0.00	0.00	0.00
43215200	Riverside	0.00%	0.00	0.00	0.00
43215300	Riverside	0.00%	0.00	0.00	0.00
43215400	Riverside	0.00%	0.00	0.00	0.00
43217100	Riverside	0.00%	0.00	0.00	0.00
43217200	Riverside	0.00%	0.00	0.00	0.00
43218100	Riverside	0.00%	0.00	0.00	0.00
43218200	Riverside	0.00%	0.00	0.00	0.00
43218300	Riverside	0.00%	0.00	0.00	0.00
43218400	Riverside	0.00%	0.00	0.00	0.00
43219100	Riverside	0.00%	0.00	0.00	0.00
43219200	Riverside	0.00%	0.00	0.00	0.00
43220200	Riverside	0.00%	0.00	0.00	0.00
43221100	Riverside	0.00%	0.00	0.00	0.00
43221200	Riverside	0.00%	0.00	0.00	0.00
43222100	Riverside	0.00%	0.00	0.00	0.00
43222200	Riverside	0.00%	0.00	0.00	0.00
43222300	Riverside	0.00%	0.00	0.00	0.00
43223100	Riverside	0.00%	0.00	0.00	0.00
43223200	Riverside	0.00%	0.00	0.00	0.00
43223300	Riverside	0.00%	0.00	0.00	0.00
43223400	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43223500	Riverside	0.00%	0.00	0.00	0.00
43223600	Riverside	0.00%	0.00	0.00	0.00
43223700	Riverside	0.00%	0.00	0.00	0.00
43223800	Riverside	0.00%	0.00	0.00	0.00
43223900	Riverside	0.00%	0.00	0.00	0.00
43224100	Riverside	0.00%	0.00	0.00	0.00
43224200	Riverside	0.00%	0.00	0.00	0.00
43224300	Riverside	0.00%	0.00	0.00	0.00
43225100	Riverside	0.00%	0.00	0.00	0.00
43225200	Riverside	0.00%	0.00	0.00	0.00
43225300	Riverside	0.00%	0.00	0.00	0.00
43227100	Riverside	0.00%	0.00	0.00	0.00
43227200	Riverside	0.00%	0.00	0.00	0.00
43227300	Riverside	0.00%	0.00	0.00	0.00
43227400	Riverside	0.00%	0.00	0.00	0.00
43228100	Riverside	0.00%	0.00	0.00	0.00
43228200	Riverside	0.00%	0.00	0.00	0.00
43228300	Riverside	0.00%	0.00	0.00	0.00
43228400	Riverside	0.00%	0.00	0.00	0.00
43229100	Riverside	0.00%	0.00	0.00	0.00
43229200	Riverside	0.00%	0.00	0.00	0.00
43230100	Riverside	0.00%	0.00	0.00	0.00
43230200	Riverside	0.00%	0.00	0.00	0.00
43230300	Riverside	0.00%	0.00	0.00	0.00
43230400	Riverside	0.00%	0.00	0.00	0.00
43231100	Riverside	0.00%	0.00	0.00	0.00
43231200	Riverside	0.00%	0.00	0.00	0.00
43231300	Riverside	0.00%	0.00	0.00	0.00
43231400	Riverside	0.00%	0.00	0.00	0.00
43231500	Riverside	0.00%	0.00	0.00	0.00
43231600	Riverside	0.00%	0.00	0.00	0.00
43231700	Riverside	0.00%	0.00	0.00	0.00
43231800	Riverside	0.00%	0.00	0.00	0.00
43232100	Riverside	0.00%	0.00	0.00	0.00
43232200	Riverside	0.00%	0.00	0.00	0.00
43233100	Riverside	0.00%	0.00	0.00	0.00
43233200	Riverside	0.00%	0.00	0.00	0.00
43233300	Riverside	0.00%	0.00	0.00	0.00
43234100	Riverside	0.00%	0.00	0.00	0.00
43234200	Riverside	0.00%	0.00	0.00	0.00
43235100	Riverside	0.00%	0.00	0.00	0.00
43235200	Riverside	0.00%	0.00	0.00	0.00
43235300	Riverside	0.00%	0.00	0.00	0.00
43235400	Riverside	0.00%	0.00	0.00	0.00
43235500	Riverside	0.00%	0.00	0.00	0.00
43236100	Riverside	0.00%	0.00	0.00	0.00
43236200	Riverside	0.00%	0.00	0.00	0.00
43236300	Riverside	0.00%	0.00	0.00	0.00
43236400	Riverside	0.00%	0.00	0.00	0.00
43236500	Riverside	0.00%	0.00	0.00	0.00
43236600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43237300	Riverside	0.00%	0.00	0.00	0.00
43238100	Riverside	0.00%	0.00	0.00	0.00
43238200	Riverside	0.00%	0.00	0.00	0.00
43238300	Riverside	0.00%	0.00	0.00	0.00
43238400	Riverside	0.00%	0.00	0.00	0.00
43238500	Riverside	0.00%	0.00	0.00	0.00
43239100	Riverside	0.00%	0.00	0.00	0.00
43239200	Riverside	0.00%	0.00	0.00	0.00
43239300	Riverside	0.00%	0.00	0.00	0.00
43239400	Riverside	0.00%	0.00	0.00	0.00
43240100	Riverside	0.00%	0.00	0.00	0.00
43240200	Riverside	0.00%	0.00	0.00	0.00
43240300	Riverside	0.00%	0.00	0.00	0.00
43240400	Riverside	0.00%	0.00	0.00	0.00
43241100	Riverside	0.00%	0.00	0.00	0.00
43241200	Riverside	0.00%	0.00	0.00	0.00
43242100	Riverside	0.00%	0.00	0.00	0.00
43242200	Riverside	0.00%	0.00	0.00	0.00
43242300	Riverside	0.00%	0.00	0.00	0.00
43242400	Riverside	0.00%	0.00	0.00	0.00
43243100	Riverside	0.00%	0.00	0.00	0.00
43244100	Riverside	0.00%	0.00	0.00	0.00
43244200	Riverside	0.00%	0.00	0.00	0.00
43245100	Riverside	0.00%	0.00	0.00	0.00
43246100	Riverside	0.00%	0.00	0.00	0.00
43246200	Riverside	0.00%	0.00	0.00	0.00
43246300	Riverside	0.00%	0.00	0.00	0.00
43246400	Riverside	0.00%	0.00	0.00	0.00
43246500	Riverside	0.00%	0.00	0.00	0.00
43248100	Riverside	0.00%	0.00	0.00	0.00
43249100	Riverside	0.00%	0.00	0.00	0.00
43249200	Riverside	0.00%	0.00	0.00	0.00
43249300	Riverside	0.00%	0.00	0.00	0.00
43249400	Riverside	0.00%	0.00	0.00	0.00
43250100	Riverside	0.00%	0.00	0.00	0.00
43250200	Riverside	0.00%	0.00	0.00	0.00
43251100	Riverside	0.00%	0.00	0.00	0.00
43251200	Riverside	0.00%	0.00	0.00	0.00
43252100	Riverside	0.00%	0.00	0.00	0.00
43252200	Riverside	0.00%	0.00	0.00	0.00
43252300	Riverside	0.00%	0.00	0.00	0.00
43253100	Riverside	0.00%	0.00	0.00	0.00
43253200	Riverside	0.00%	0.00	0.00	0.00
43254100	Riverside	13.30%	275.02	277.68	282.65
43255100	Riverside	0.00%	0.00	0.00	0.00
43255200	Riverside	0.00%	0.00	0.00	0.00
43255300	Riverside	0.00%	0.00	0.00	0.00
43255400	Riverside	0.57%	10.28	10.39	10.60
43255500	Riverside	0.00%	0.00	0.00	0.00
43256500	Riverside	0.00%	0.00	0.00	0.00
43256600	Riverside	0.00%	0.00	0.00	0.00

TAZ	Location	Percent within MVUSD**	Household 2012	Household 2020	Household 2035
43256900	Riverside	0.00%	0.00	0.00	0.00
43257100	Riverside	0.00%	0.00	0.00	0.00
43257200	Riverside	0.00%	0.00	0.00	0.00
43258100	Riverside	0.00%	0.00	0.00	0.00
43258200	Riverside	0.00%	0.00	0.00	0.00
43259100	Riverside	0.00%	0.00	0.00	0.00
43259200	Riverside	0.00%	0.00	0.00	0.00
43260100	Riverside	69.40%	1,121.44	1,135.32	1,161.27
43260200	Riverside	0.00%	0.00	0.00	0.00
43261100	Riverside	0.00%	0.00	0.00	0.00
43261300	Riverside	0.00%	0.00	0.00	0.00
43262300	Riverside	3.91%	0.00	0.00	0.00
43264100	Riverside	85.19%	4.26	5.11	6.70
43264200	Riverside	1.03%	0.00	0.00	0.00
43264300	Riverside	96.40%	0.00	0.00	0.00
43266100	Riverside	0.00%	0.00	0.00	0.00
<b>Totals</b>			<b>1,410.99</b>	<b>1,428.50</b>	<b>1,461.23</b>

**Extrapolation of Five Year Projection based on Annual Averages:**

Difference Current Year to Prior Year:	17.50	32.73
Number of Years within Years Estimated:	8	15
Annual Average Dwelling Units per Year Estimated:*	2.19	2.18

**Estimated Number of Dwelling Units January 1, 2019**

	Existing Units As of January 1, 2012	Total Dwelling Units
Additional Dwelling Units Constructed 01/01/2012 to 01/01/2013		2.19
Additional Dwelling Units Constructed 01/01/2013 to 01/01/2014		2.19
Additional Dwelling Units Constructed 01/01/2014 to 01/01/2015		2.19
Additional Dwelling Units Constructed 01/01/2015 to 01/01/2016		2.19
Additional Dwelling Units Constructed 01/01/2016 to 01/01/2017		2.19
Additional Dwelling Units Constructed 01/01/2017 to 01/01/2018		2.19
Additional Dwelling Units Constructed 01/01/2018 to 01/01/2019		2.19
<b>Estimated Dwelling Units to Exist on January 1, 2019</b>		<b>1,426.31</b>

**Estimated Number of Dwelling Units Permitted for Five Year Period:**

	Permitted Date	Total Dwelling Units
Dwelling Units Permitted 07/01/19 to 7/01/20		2.19
Dwelling Units Permitted 07/01/20 to 7/01/21		2.18
Dwelling Units Permitted 07/01/21 to 7/01/22		2.18
Dwelling Units Permitted 07/01/22 to 7/01/23		2.18
Dwelling Units Permitted 07/01/23 to 7/01/24		2.18
<b>Projected Number of Dwelling Units Permitted for Five Fiscal Years:</b>		<b>10.92</b>

\*Percentage in District was proved by SCAG by GIS Review

**APPENDIX G  
LOCAL FUNDS  
PER GOVERNMENT CODE SECTION 65995.6(b)  
FOR THE  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
May 2019**

---

**Local Funds**

---

Section 65995.6(b) of the California Government Code directs that when determining the funds necessary to meet the facilities needs of the District, the SFNA shall do each of the following:

1. Identify and consider any surplus property owned by the District that can be used as a school site or that is available for sale to finance school facilities.
2. Identify and consider the extent to which projected enrollment growth may be accommodated by excess capacity in existing facilities.
3. Identify and consider local sources other than fees, charges, dedications, or other requirements imposed on residential construction available to finance the construction or reconstruction of school facilities needed to accommodate any growth in enrollment attributable to the construction of new residential units.

Section 65995.5(c)(2) of the California Government Code adds that the full amount of local funds the governing board has dedicated to facilities necessitated by new construction shall be subtracted from the Total Per Unhoused Pupil Grant. Local funds include fees, charges, dedications, or other requirements imposed on commercial or industrial construction.

Each of these requirements is reviewed in the following sections.

---

***Surplus Property***

---

The District does own two sites that are not currently useable according to State standards as a school site. The first site is located at Wilmont and Cactus and is approximately 8.97 acres. The second site is located in Reche Canyon and is approximately 5.0 acres. Assuming the District could receive a price per acre equal to a recent site purchase of \$119,844 per acre, the District would generate \$1,674,221 for these two sites. These funds are shown as Identified Local Funds in the final section of Appendix G.

In addition, the District owns two additional sites. The first is a future high school site near Ironwood Avenue and Redlands Boulevard. The ownership of this site has been taken into consideration when determining the number of school sites needed in the next five-year period in the body of this Report as shown in Table 17. The second is an elementary site of 8.97 acres on Nason Street. This site will be used to house a replacement school for Moreno Valley Elementary. Moreno Valley Elementary will be used as a replacement site for Rainbow Springs Elementary, which will converted for District use and not house students. There will not be an increase in capacity from this reorganization and there are no funds available from the ownership of these sites.

**Projected Enrollment Housed in Current Excess Capacity**

The body of the SFNA has taken into consideration the use of current excess capacity to house projected enrollment and as detailed on page 16-17, and shown on Table 10, a portion of the excess capacity is available to house projected enrollment from unmitigated houses in the next five-year period. This calculation is summarized below.

<b>Table G-1 Excess Capacity</b>			
<b>Type</b>	<b>Current Enrollment (October 2018)</b>	<b>Capacity (October 2018)</b>	<b>Excess/(Deficit) Capacity (October 2018)</b>
Elementary (K-5)	14,988	14,390	(598)
Middle (6-8)	7,818	11,180	3,362
High (9-12)	9,968	10,609	641
<b>Total</b>	<b>32,774</b>	<b>36,179</b>	<b>3,405</b>
<b>Type</b>	<b>Excess Capacity (October 2018)</b>	<b>Percent of Future Students to be Generated in the Next 5 Years</b>	<b>Excess Capacity to be Allocated to the Next 5 Years</b>
Elementary (K-5)	0	NA	0
Middle (6-8)	3,362	4.64%	156
High (9-12)	641	3.09%	20
<b>Total</b>			<b>176</b>
<b>Type</b>	<b>Projected Unhoused Students in the Next 5 Years</b>	<b>Excess Capacity to be Allocated to the Next 5 Years as Allocated Above Plus Additional Seats</b>	<b>Adjusted Unhoused Students in the Next 5 Year Period</b>
Elementary (K-5)	248	0	248
Middle (6-8)	134	156	0
High (9-12)	114	20	94
<b>Total</b>	<b>496</b>	<b>176</b>	<b>342</b>

---

---

***Local Sources Other Than Fees, etc., on Residential Construction***

---

The requirement is to identify and consider local sources other than fees, charges, dedications, or other requirements imposed on residential construction available to finance the construction or reconstruction of school facilities needed to accommodate any growth in enrollment attributable to the construction of new residential units. Each source available to the District has been reviewed and is contained in the following sections.

---

---

**GENERAL OBLIGATION BOND FUNDS**

---

The District successfully passed a General Obligation Bond measure in November of 2014 for a total authorization of \$398,000,000. Since the passage of the bond measure, two series of bonds have been issued. In April of 2015, Series A was issued in the amount of \$103,000,000. In September of 2018, Series B was issued in the amount of \$56,000,000. As of March 4, 2019, the balance in the construction funds was approximately \$79,004,259. These funds have been dedicated to modernization projects, none of which will increase capacity. The calculation of the use of these funds (\$0) is contained within Table G-2.

---

---

**CERTIFICATES OF PARTICIPATION**

---

In July of 1997 and in June of 1998, the District issued Certificates of Participation. The Acquisition Fund has been closed.

---

---

**DEVELOPER FEES**

---

The District, as of the date of this Report, collects Level I Fees of \$3.79 or, as applicable during the past year, a Level II Fee of \$4.59 per square foot of residential construction and \$0.61 per square foot of commercial and industrial construction. As of March 4, 2019, the balance in the Capital Facilities Fund was approximately \$9,708,282. The calculation of the use of these funds is contained within Table G-2.

In addition, an analysis was performed to determine to what extent, if any, future commercial/industrial fees could be projected as an offset against the impact of future new residential construction. Research found that for the past year, the District has collected approximately \$1,035,222 in fees from commercial and industrial development. Projecting this annual figure times five to represent five years of commercial/industrial fees corresponds to approximately \$5,176,110 in projected revenue. Although the receipt of these funds is speculative, the analysis contained as Table G-2 uses these funds.

---

---

STATE FUNDS

---

As of March 4, 2019, the balance in the County School Facilities Fund representing State Funds was approximately \$3,426,424. The calculation of the use of these funds is contained within Table G-2.

---

---

***Use of Identified Local Funds***

---

Section 65995.5(c)(2) of the California Government Code requires the District to identify and consider local funds and to subtract these funds, if available, from the Total Per Unhoused Pupil Grant. Over the next five years, the District will need to construct facilities to house currently 598 unhoused elementary students identified on Table 9, 248 projected elementary students and 94 projected high school students (without the need for land) identified on Table 10. Based on current costs for school facilities detailed in Appendix A, without taking into consideration administrative or interim housing needs, these facilities needs carry an estimated financial impact to the District of \$52,509,223.

As detailed above, the District has identified available Local Funds from the sale of excess sites, balances in the Developer Fee Fund and State Funds. Also detailed above is an analysis which projects revenue from Developer Fees collected from Non-Residential Property. In addition to these sources the District can also project to receive Level II Fees from Residential Property constructed over the next five-year period. This estimate, based on the dwelling units projected to contain 1,362,570 square feet of assessable space as calculated on Table 20, is \$6,322,325. The District plans to pursue State funding for school facilities to house students generated from existing residential units and Projected Unmitigated Dwelling Units. Based on current per-pupil grant amounts established by the State and the District's site costs, the District can project to receive \$7,575,531 in State funding.

The following table calculates the extent to which the District has excess local funds available to lower the impact of future development in the next five-year period. As shown, when considering current and future school needs as well as current and projected school facilities revenue, the District does not have surplus local facilities funds available to lower the needs of projected development.

**Table G-2  
Calculation of Surplus Local Funds**

<b>Summary of Fiscal Impact and Local Funds</b>		<b>Total Identified Impact or Local Funds</b>
<b>Summary of Fiscal Impact:</b>		
Existing Unhoused Impact	\$31,049,954	
Projected Impact	\$21,459,269	
<b>Total Fiscal Impact:</b>		<b>\$52,509,223</b>
<b>Summary of Local Funds:</b>		
Projected Sale of Excess Property	\$1,674,221	
General Obligation Bonds Construction Fund Balance	\$0	
Certificates of Participation Fund Balance	\$0	
Developer Fee Fund Balance	\$9,708,282	
State Funds Balance	\$3,426,424	
Projected Non-Residential Developer Fee	\$5,176,110	
Projected Residential Level II Fees	\$6,322,325	
Projected State Funding	\$7,575,531	
<b>Total Identified and Projected Local Facilities Funds:</b>		<b>\$33,882,893</b>
<b>Calculation of Surplus/(Deficit) Local Funds:</b>		<b>(\$18,626,330)</b>



FACILITIES PLANNING &  
DEVELOPMENT  
25634 Alessandro Blvd.  
Moreno Valley, CA 92553  
951-571-7500  
www.mvUSD.net

#### BOARD OF EDUCATION

MARSHA LOCKE, ED.D.  
*President*

DARRELL A. PEEDEN, MPP  
*Vice President*

SUSAN SMITH  
*Clerk*

JESÚS M. HOLGUÍN  
*Member*

CLEVELAND JOHNSON  
*Member*

#### SUPERINTENDENT OF SCHOOLS

MARTINREX KEDZIORA, ED.D.

#### EXECUTIVE CABINET

MARIBEL MATTOX  
*Chief Academic Officer*

DR. ROBERT VERDI  
*Chief Human Resources Officer*

SUSANA LOPEZ  
*Chief Business Official*

*The mission of Moreno Valley Unified School District is to ensure all students graduate high school prepared to successfully enter into higher education and/or pursue a viable career path.*

March 24, 2020

Chris Ormsby  
City of Moreno Valley  
Community Development Department  
14177 Frederick Street  
P.O. Box 88005  
Moreno Valley, CA 92552

Email: [chriso@moval.org](mailto:chriso@moval.org)

Project: Notice of Preparation of a Program Environmental Impact Report for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan

Dear Mr. Ormsby,

The Moreno Valley Unified School District (District) appreciates the opportunity to review the NOP for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan

The District's focus continues to be the health and well-being of our students and staff, specifically to air and noise pollution as a result of an increase in traffic that may negatively impact the School District.

Additionally, it should be noted that there will be developer impact fees associated with this project, payable to the Moreno Valley Unified School District. It is highly suggested that contact should be made with our Facilities and Planning Department's Demographics Technician, Cheryl Acevedo ([cacevedo@mvUSD.net](mailto:cacevedo@mvUSD.net)) prior to processing a certificate of compliance and payment of fees – as the following fees are subject to change.

For Industrial/Commercial Projects, these fees are currently \$.61 per square foot.

For Residential Development Projects, these fees are currently:

- New Residential: \$4.64/sq. ft.
- Room Additions/Conversions: <math>\leq 499\text{ sq. ft.}</math> (no fees)
- Room Additions/Conversions: 500 sq. ft.+ = \$3.79/sq. ft.
- Stand-alone Accessory Dwelling Units: 750 sq. ft. +, fees are calculated based on a percentage of the existing main residential dwelling unit
- Stand-alone Accessory Dwelling Units: <math>\leq 749\text{ sq. ft.}</math> (no fees)

Please keep us informed as to the City's progress in this matter, and any notifications relating to this project.

Sincerely,

Samer Alzubaidi, Director  
Facilities Planning & Development  
[salzubaidi@mvUSD.net](mailto:salzubaidi@mvUSD.net)

RECEIVED

MAR 30 2020

CITY OF MORENO VALLEY  
Planning Division

# NATIVE AMERICAN HERITAGE COMMISSION

March 9, 2020

Governor's Office of Planning & Research

**MAR 12 2020**

**STATE CLEARINGHOUSE**

Chris Ormsby  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, CA 92553

**Re: 2020039022, Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Update Project, Riverside County**

Dear Mr. Ormsby:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

SECRETARY  
**Merri Lopez-Keifer**  
Luiseño

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

COMMISSIONER  
**Marshall McKay**  
Wintun

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Joseph Myers**  
Pomo

COMMISSIONER  
**Julie Tumamait-Stenslie**  
Chumash

COMMISSIONER  
[Vacant]

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

## AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

**1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:**

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a.** A brief description of the project.
- b.** The lead agency contact information.
- c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

**2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:**

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

**3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a.** Alternatives to the project.
- b.** Recommended mitigation measures.
- c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

**4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

- a.** Type of environmental review necessary.
- b.** Significance of the tribal cultural resources.
- c.** Significance of the project's impacts on tribal cultural resources.
- d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

**5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

**6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation**: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation**. There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality**: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation**: Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

## NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([http://ohp.parks.ca.gov/?page\\_id=1068](http://ohp.parks.ca.gov/?page_id=1068)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

- b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
- 3.** Contact the NAHC for:
- a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4.** Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:  
[Andrew.Green@nahc.ca.gov](mailto:Andrew.Green@nahc.ca.gov).

Sincerely,



Andrew Green  
Staff Services Analyst

cc: State Clearinghouse

## NATIVE AMERICAN HERITAGE COMMISSION

March 18, 2020

Chris Ormsby  
City of Moreno Valley

Via Email to: [chriso@moval.org](mailto:chriso@moval.org)

**Re: Native American Consultation, Pursuant to Senate Bill 18, Government Code §65352.3 and §65352.4, MoVal 2040: Comprehensive General Plan Update and Climate Action Plan Project, Riverside County**

Dear Mr. Ormsby:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties.

Government Code §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

The law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

The NAHC also believes that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
  - A listing of any and all known cultural resources that have already been recorded or are adjacent to the APE, such as known archaeological sites;
  - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
  - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
  - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
  - Any report that may contain site forms, site significance, and suggested mitigation measures.



CHAIRPERSON  
**Laura Miranda**  
*Luiseño*

VICE CHAIRPERSON  
**Reginald Pagaling**  
*Chumash*

SECRETARY  
**Merri Lopez-Keifer**  
*Luiseño*

PARLIAMENTARIAN  
**Russell Attebery**  
*Karuk*

COMMISSIONER  
**Marshall McKay**  
*Wintun*

COMMISSIONER  
**William Mungary**  
*Paiute/White Mountain Apache*

COMMISSIONER  
**Joseph Myers**  
*Pomo*

COMMISSIONER  
**Julie Tumamait-Stenslie**  
*Chumash*

COMMISSIONER  
**[Vacant]**

EXECUTIVE SECRETARY  
**Christina Snider**  
*Pomo*

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code §6254.10.

3. The result of the Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the tribes on the attached list for more information.
4. Any ethnographic studies conducted for any area including all or part of the APE; and
5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we are able to assure that our consultation list remains current.

If you have any questions or need additional information, please contact me at my email address: [Andrew.Green@nahc.ca.gov](mailto:Andrew.Green@nahc.ca.gov).

Sincerely,



Andrew Green  
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission  
Tribal Consultation List  
Riverside County  
3/18/2020**

**Agua Caliente Band of Cahuilla  
Indians**

Jeff Grubbe, Chairperson  
5401 Dinah Shore Drive Cahuilla  
Palm Springs, CA, 92264  
Phone: (760) 699 - 6800  
Fax: (760) 699-6919

**Morongongo Band of Mission  
Indians**

Robert Martin, Chairperson  
12700 Pumarra Rroad Cahuilla  
Banning, CA, 92220 Serrano  
Phone: (951) 849 - 8807  
Fax: (951) 922-8146  
dtorres@morongongo-nsn.gov

**Augustine Band of Cahuilla  
Mission Indians**

Amanda Vance, Chairperson  
P.O. Box 846 Cahuilla  
Coachella, CA, 92236  
Phone: (760) 398 - 4722  
Fax: (760) 369-7161  
hhaines@augustinetribe.com

**Pechanga Band of Luiseno  
Indians**

Mark Macarro, Chairperson  
P.O. Box 1477 Luiseno  
Temecula, CA, 92593  
Phone: (951) 770 - 6000  
Fax: (951) 695-1778  
epreston@pechanga-nsn.gov

**Cabazon Band of Mission  
Indians**

Doug Welmas, Chairperson  
84-245 Indio Springs Parkway Cahuilla  
Indio, CA, 92203  
Phone: (760) 342 - 2593  
Fax: (760) 347-7880  
jstapp@cabazonindians-nsn.gov

**Quechan Tribe of the Fort Yuma  
Reservation**

Jill McCormick, Historic  
Preservation Officer  
P.O. Box 1899 Quechan  
Yuma, AZ, 85366  
Phone: (760) 572 - 2423  
historicpreservation@quechantribe.com

**Cahuilla Band of Indians**

Daniel Salgado, Chairperson  
52701 U.S. Highway 371 Cahuilla  
Anza, CA, 92539  
Phone: (951) 763 - 5549  
Fax: (951) 763-2808  
Chairman@cahuilla.net

**Ramona Band of Cahuilla**

Joseph Hamilton, Chairperson  
P.O. Box 391670 Cahuilla  
Anza, CA, 92539  
Phone: (951) 763 - 4105  
Fax: (951) 763-4325  
admin@ramona-nsn.gov

**Los Coyotes Band of Cahuilla  
and Cupeño Indians**

Shane Chapparosa, Chairperson  
P.O. Box 189 Cahuilla  
Warner Springs, CA, 92086-0189  
Phone: (760) 782 - 0711  
Fax: (760) 782-0712

**San Fernando Band of Mission  
Indians**

Donna Yocum, Chairperson  
P.O. Box 221838 Kitanemuk  
Newhall, CA, 91322 Vanyume  
Phone: (503) 539 - 0933 Tataviam  
Fax: (503) 574-3308  
ddyocum@comcast.net

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Government Code Sections 65352.3 and 65352.4 et seq for the proposed MoVal 2040: Comprehensive General Plan Update and Climate Action Plan Project, Riverside County.

**Native American Heritage Commission  
Tribal Consultation List  
Riverside County  
3/18/2020**

**San Manuel Band of Mission  
Indians**

Jessica Mauck, Director of  
Cultural Resources  
26569 Community Center Drive Serrano  
Highland, CA, 92346  
Phone: (909) 864 - 8933  
jmauck@sanmanuel-nsn.gov

**Torres-Martinez Desert Cahuilla  
Indians**

Thomas Tortez, Chairperson  
P.O. Box 1160 Cahuilla  
Thermal, CA, 92274  
Phone: (760) 397 - 0300  
Fax: (760) 397-8146  
tmchair@torresmartinez.org

**Santa Rosa Band of Cahuilla  
Indians**

Steven Estrada, Chairperson  
P.O. Box 391820 Cahuilla  
Anza, CA, 92539  
Phone: (951) 659 - 2700  
Fax: (951) 659-2228  
mflaxbeard@santarosacahuilla-  
nsn.gov

**Serrano Nation of Mission  
Indians**

Wayne Walker, Co-Chairperson  
P. O. Box 343 Serrano  
Patton, CA, 92369  
Phone: (253) 370 - 0167  
serranonation1@gmail.com

**Serrano Nation of Mission  
Indians**

Mark Cochrane, Co-Chairperson  
P. O. Box 343 Serrano  
Patton, CA, 92369  
Phone: (909) 528 - 9032  
serranonation1@gmail.com

**Soboba Band of Luiseno  
Indians**

Scott Cozart, Chairperson  
P. O. Box 487 Cahuilla  
San Jacinto, CA, 92583 Luiseno  
Phone: (951) 654 - 2765  
Fax: (951) 654-4198  
jontiveros@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Government Code Sections 65352.3 and 65352.4 et seq for the proposed MoVal 2040: Comprehensive General Plan Update and Climate Action Plan Project, Riverside County.

**From:** [Green, Andrew@NAHC](mailto:Green.Andrew@NAHC)  
**To:** [Chris Ormsby](#)  
**Subject:** MoVal 2040: Comprehensive General Plan Update and Climate Action Plan Project  
**Date:** Wednesday, March 18, 2020 4:35:59 PM  
**Attachments:** [SB 18 ALL MoVal 2040 Comprehensive General Plan Update and Climate Action Plan Project 3.18.2020.pdf](#)  
[MoVal 2040 Comprehensive General Plan Update and Climate Action Plan Project 3.18.2020.pdf](#)

---

**Warning: External Email – Watch for Email Red Flags!**

Good Afternoon,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at [nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov).

Regards,

**Andrew Green**

Native American Heritage Commission  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
[Andrew.Green@nahc.ca.gov](mailto:Andrew.Green@nahc.ca.gov)  
Direct Line: (916) 573-1072  
Office: (916) 373-3710



Dear City of Moreno Valley,

April 9, 2020

RE: Notice of Preparation (NOP) of Program Environmental Impact Report (PEIR) for Moreno Valley's General Plan Update (GPU) and Climate Action Plan (CAP).

The Sierra Club appreciates these opportunity to add some additional thoughts on the Program Environmental Impact Report (PEIR) for the General Plan Update's (GPU) and Climate Action Plan (CAP). We have cobbled together ideas and thoughts from several sources we hope will help make for a better product.

I have attended several of the Cities public meetings on the GPU's and CAP's PEIR which included a short presentation. I was surprised that almost no time was spent on the Environmental Justice (EJ) Element of the General Plan Update. In fact I do not believe anyone indicated it was important to them at the General Plan Advisory Committee (GPAC) meeting when people were given an opportunity to place a post-it on the different elements they considered important.

The following link (<https://datausa.io/profile/geo/moreno-valley-ca>) indicates Moreno Valley has a poverty rate of almost 17% or about 34,000 out of a population of more than 203,000. It also shows that almost 58% (118,000) of the population is Latino with about 25% (50,000) of Moreno Valley is foreign born. The maps shared at public meetings indicated Moreno Valley has large disadvantaged areas south of SR-60. Many of those areas are also disadvantaged because of their proximity to approved warehouse projects as well as their diesel truck traffic.

The purpose of SB 1000 is to make environmental justice a real and vital part of the planning process by promoting transparency and public engagement in local governments' planning and decision-making processes, reducing harmful pollutants and associated health risks in environmental justice communities, and encouraging equitable access to health-inducing benefits, such as healthy food options, housing, and recreation. The Sierra Club has asked for more than a decade for all environmental documents be in both English and Spanish in order to involve a higher percentage of Moreno Valley residents. We again ask you to do that for all public documents related to the GPU, CAP and Housing Element.

SB 1000 requires local governments to adopt EJ policies that "reduce the unique or compounded health risks and pollution burdens borne by the disadvantaged communities" in the jurisdiction, including policies that reduce pollution exposure and improve air quality. (Gov. Code§ 65302, subd. (h)(1)(A).)

Moreno Valley must explain its methodology for identifying the disadvantaged communities, including an explanation of the disproportionate pollution burdens, health risks, and unique needs faced by the identified communities.

Our general plan's policies must "reduce the unique or compounded health risks in the disadvantaged communities" by doing at least the following:

- 1) reduce pollution exposure;
- 2) improve air quality;
- 3) promote public facilities;
- 4) promote food access;
- 5) promote safe and sanitary homes' and
- 6) promote physical activity.

Environmental justice aims to correct the legacy of concentrating pollution and other hazards in or near low-income communities of color by reducing these hazards and involving the impacted communities in any decisions that affect their environment or health.

The EJ Element must prohibit new sources of air pollution within the City's disadvantaged communities. Like many urban areas of California, Moreno Valley disadvantaged communities face health risks from air pollution generated by mobile and industrial sources. The EJ Element must thoughtfully detail the risks the communities face from diesel particulate matter and toxic air contaminants, explaining the origins of these pollutants and the potential health consequences of exposure in straightforward language. To help ameliorate air quality concerns, the EJ Element must promote land use patterns that reduce driving and redirect truck routes away from residential areas and sensitive land uses, as well as encouraging existing sources of air pollutants to use feasible mechanisms to minimize their emissions.

The EJ Element must explain the impact that climate change will have in the disadvantaged communities, linking the communities' low tree canopy coverage with the risk of heat-island effect. Moreno Valley could have a policy that commits to planting street trees along all streets in the disadvantaged communities by 2026. This is just one example of a clear policy—with a concrete deadline—that will yield benefits by cleaning the air, sequestering carbon, cooling neighborhoods, reducing storm water costs, buffering noise, and providing wildlife habitat. Likewise, the Element's comprehensive policies need to include one supporting resilience training for staff, community leaders, and residents to deal with the social and psychological impacts of climate change. Innovative policies like this will equip Moreno Valley residents with the tools they need to live longer, healthier lives in a changing climate.

The approved 40.6 million sq ft World Logistic Center (WLC) warehouse projects environmental impacts must be part of the analysis within all elements of the GPU's and CAP's PEIR. This must include the WLC's more than 13,000 daily diesel truck trips, more than 50,000 daily trips, all the diesel forklifts, diesel hostlers/yard goats, diesel auxiliary power units. This is especially true for its impacts on the Disadvantaged Communities of our town. That includes truck routes leading to the

project which will pass through portion of town. The General Plan Update must show all the places in Moreno Valley as shown in the WLC's DEIR/FEIR which will require a wall to protect residents from the environmental impacts from the WLC.

Moreno Valley continues to put its residents at risk from warehouse development. They are currently processing a 1.3 million sq ft Moreno Valley Trade Center. I believe this project may be with the area designated as part of our Disadvantaged Community and if it is not, it is very close. This project will be directly across the street from existing homes and land zoned for homes. The project site is currently zoned for homes and should be used for transitional uses — between an existing warehouse and existing homes — to lessen the impacts on homeowners. The City is currently showing this land as a place for this project and not housing which is wrong on so many levels. When planning staff was asked why they would allow this project to move forward, they simple said the developer brought us the project and we need to process it. The EJ section of the GPU must be written to not allow such thinking which puts families at risk for significant health problems. Moreno Valley, however, has already approved two other major warehouse projects in the past two years that are across the street from family homes. The City did nothing to protect the families and even allowed truck traffic to pass by on the street between the warehouse and homes.

The City has been told many times that Heacock Street should not be a designated truck route, because it not only passes peoples' residents, but also it passes three schools. The EJ section must required all the warehouse diesel truck traffic to go to/from the nearest freeway (I-215 or SR-60) and to avoid sensitive uses. Other current truck routes also have other problems and must be thoroughly evaluated.

A wide variety of homes are needed in Moreno Valley. These include homes on 1/2 acre and larger lots to affordable units. The GPU must show how many units of each type may be built for the proposed zoning. None of the land zoned for homes should be allowed within 1,000 feet of land which would permit warehousing/logistic centers to be built. Affordable housing must be placed near transit centers, shopping, bus routes, bicycle paths, and sidewalks. All lands zoned for affordable units/homes must show they have all these uses nearby.

There also needs to be a wide variety of jobs/professions available for Moreno Valley residents. The Sierra Club believes we have enough warehousing. Since this is a GPU for 2040, it need to have section showing how many warehouse jobs will be automated/robotics during the next 20 years. This includes diesel truck driving which is already happening in Arizona and is expected in most states by 2025.

All the warehousing which produces very few jobs per acre of job producing land will cause many Moreno Valley residents to commute. This is because Moreno Valley has used land that could be used for many more jobs/acre for warehousing which is becoming automated and filled with robotics. Even without the automation/robotics warehousing will provide very few jobs. The GPU Draft PEIR need to show how people will need to commute because of the warehouse economy.

The GPU needs to also show how our non-attainment City is not adding to our air quality, Green House Gas, and particulate pollution. In fact the GPU needs to show how we are reducing these health problems to our residents.

Moreno Valley needs to show how many more jobs we could have if half of those lands that are zoned to allow warehousing would instead only allow other types of businesses jobs/professions. The GPU's PEiR needs to show that the median salary for a warehouse worker is a livable wage. That means their children do not have to be on free and reduced lunches. This should also be in in the EJ element to show the city is providing a wide variety of jobs/professions.

The Climate Action Plan (CAP) Draft PEIR must include the following:

- 1) Summarizes the methodologies used to calculate the City's GHG emissions and forecasts.
- 2) Summarizes the City's historic and future GHG emissions and the reduction targets the City has established.
- 3) Details the reduction strategies that will be implemented to meet the reduction targets identified in point 3 found above. Measures also include the potential energy savings and local co-benefits of the measures.
- 4) Includes the implementation of the measures, potential funding sources, and how the CAP Update will be monitored and updated over time. It also summarizes the outreach and CEQA review process conducted as part of this CAP Update.

Climate Action Plan must have 2020 or earlier baseline data.

The community inventory for Green House Gas (GHG) emissions must be categorized by sectors based on a sector's ability to be affected through our local programs, incentives, zoning, and other policies. Moreno Valley's community inventory must be divided into at least the following sectors:

- Energy which is further broken down into two subsectors:
  - ◦ Electricity includes emissions from electricity consumption in nonresidential buildings and facilities (including outdoor lighting) as well as residential buildings in Moreno Valley.
  - ◦ Natural Gas includes emissions from natural gas consumption in nonresidential buildings and facilities, as well as residential buildings in Moreno Valley.
- On-Road Transportation includes emissions from vehicle fuel use in trips wholly within Moreno Valley ("in-boundary") and trips that either originate or end in Moreno Valley ("crossboundary"). Emissions from in-boundary trips are fully accounted for in the inventory, whereas only half of the emissions from cross-boundary trips are accounted for.
- Solid Waste includes emissions from waste that is generated in the community and sent to landfills.
- Water and Wastewater includes emissions from the electricity used to source, treat, and deliver imported water in the community that is not accounted for in the community utility data. Wastewater includes emissions from treating wastewater generated in the community.
- Off-Road Sources include emissions from operating equipment for construction, commercial, light industrial, lawn and garden equipment; and recreational vehicles, such as all-terrain vehicles.

The above needs to be in a chart/tables/graphs that shows Business as Usually (BAU) vs Adjusted BAU in metric tons. The chart needs to show the goals for 2030, 2040 and 2050. The CAP needs tables/graphs with Green House Gas reduction Measures, Timelines and Phasing Schedule.

Require energy audits of non-residential buildings and retrofits.

Home energy evaluations and renovations.

Require new residential units exceed the latest Title 24's energy efficiency standards.

Energy efficiency enhancement of existing buildings.

Require solar on all commercial building. Energy storage systems must also be strongly recommended.

Tree shaded building are 20 - 45 degrees cooler than unshaded and they reduce urban heat islands along with reducing air conditioning.

Commercial rooftops must be covered with light reflective surfaces to produce cool roofs.

Increase reclaimed water and recycled or grey water for community use such as residential landscaping.

Reduce waste to landfills.

Community Choice Aggregation program. Moreno Valley's own electric utilities for the eastern half of our City must stop discouraging solar on warehousing and other large structures so the City can benefit financially by selling them power. The lack of solar required on the WLC is an example of this problem. The WLC should have been an exporter of solar energy.

The CAP's PEIR needs to explain how they will have an ongoing education process for the public and business community on current and developing energy as well as water efficiency.

More and better transportation options need to be included in the CAP's PEIR. We are doing better with our bicycle master plan, but it needs to be expanded along with improved multi-use trails.

Electrify fleets. All major warehouse projects in the past several years have charging stations for electric cars because of Sierra Club litigation and not the City's requirements. This has to change where the City is requiring the electric vehicles (EV) fast charging stations throughout the City. Banning has been able to write grants for two DC Fast/Level 3 Fast Charging stations in the last year. Moreno Valley needs to quickly begin to strategically place these fast changing stations for EV vehicles throughout our City.

No gas allowed in new homes/units which has already been adopted by one California City.

Net Zero homes.

Solar water heating in homes and businesses.

Continue to retrofit all existing traffic signals with high-efficiency LED and require them on all new. Same must be true for street lights.

The GPU's and CAP's PEIR must let the public know who will be in charge of monitoring and the inventory as part of the CAP. Who will be in charge of to revise the program to take advantage of new and emerging technology? How will they be immediately be incorporated for use within our City along with implementing future state and federal actions? What within CAP will require the City to adopt the best technologies to protect its residents and the environment?

Riverside County has an elaborate point system for new construction to show how the project will meet their CAP guidelines/goals. Those projects which can show they have reached 100 points are considered consistent with the County's CAP, but those with less will require additional analysis. Moreno Valley needs to show in their CAP's PEIR how they will be evaluate new project to meet their goals and guidelines.

The Sierra Club is also very concerned about two members of the General Plan Advisory Committee (GPAC) who do not live in Moreno Valley. They are major developers in our City and have donated \$10,000's of dollars to make sure the current City Council majority is elected and remains in place. One of them owns a large portion of Moreno Valley on both sides of SR-60. They should be required to fill out Form 700 before they are allowed to give input into a process which could easily benefit them financially.

The Sierra Club appreciates this opportunity to add some additional input into the General Plan Update, Climate Action Plan, and Housing Element. We hope to read the Draft PEIR with many of the suggestions contained in our letter. Please keep us informed of all future meetings and documents by using the address found below.

Thank you for consideration of our comments,

George Hague  
Sierra Club  
Moreno Valley Group  
Conservation Chair  
P.O. Box 1325  
Moreno Valley, CA 92556 -1325

---

**From:** George Hague <gbhague@gmail.com>  
**Sent:** Thursday, April 9, 2020 10:37 AM  
**To:** Chris Ormsby  
**Cc:** andrew@dyyettandbhatia.com  
**Subject:** NOP Comments on the Moreno Valley's General Plan Update and Climate Action Plan

**Warning: External Email – Watch for Email Red Flags!**

Good morning Mr Ormsby,

Re: NOP comments on Moreno Valley's General Plan Update (GPU) and Climate Action Plan (CAP).

I have mentioned several times at public meetings that the maps the City is using to indicate the location/boundaries of the San Jacinto Wildlife Area (SJWA) are inaccurate. They also do not place the name San Jacinto Wildlife Area near the border of Moreno Valley so the public will understand how close they are to each other — in fact they boarder one other.

There is also a need to show the holdings of San Diego Gas and Electric Company which in one location are between the SJWA and the City of Moreno Valley.

The three maps found below will give you accurate pictures of the SJWA on which the State of California has spent more than \$90,000,000 of tax payers' money to acquire and maintain.

The Sierra Club expects to see only accurate maps of the San Jacinto Wildlife Area in any maps/figures the City is using with the public in connection with the GPU and CAP as well as its name placed near the City's boundary. This includes those large displays used at public meetings which show the City and surrounding lands.

The environmental documents need to explain the importance of the SJWA. It is a core reserve of the Western Riverside County Multiple Species Habitat Conservation Plan reserve system. Over 65 of the 146 species of animals and plants protected by the plan are found on these important public lands. There are endangered/threatened as well as species of concern found on the 10,000 acres of the Davis unit of the SJWA. This includes 25 species of raptors.

Lake Perris also has many special species in need of protection from urbanization. The GPU needs to explain to the public about these important biological resources of Lake Perris and the SJWA as well as how urbanization could impact them. Then explain how the City of Moreno Valley is going to develop a GPU to avoid those impacts.

The GPU and CAP must analyze possible impacts to the resources of the SJWA and Lake Perris and explain how they will be protected from urbanization's direct, indirect and cumulative impacts.

Sincerely,

George Hague

Sierra Club  
Moreno Valley Group  
Conservation Chair

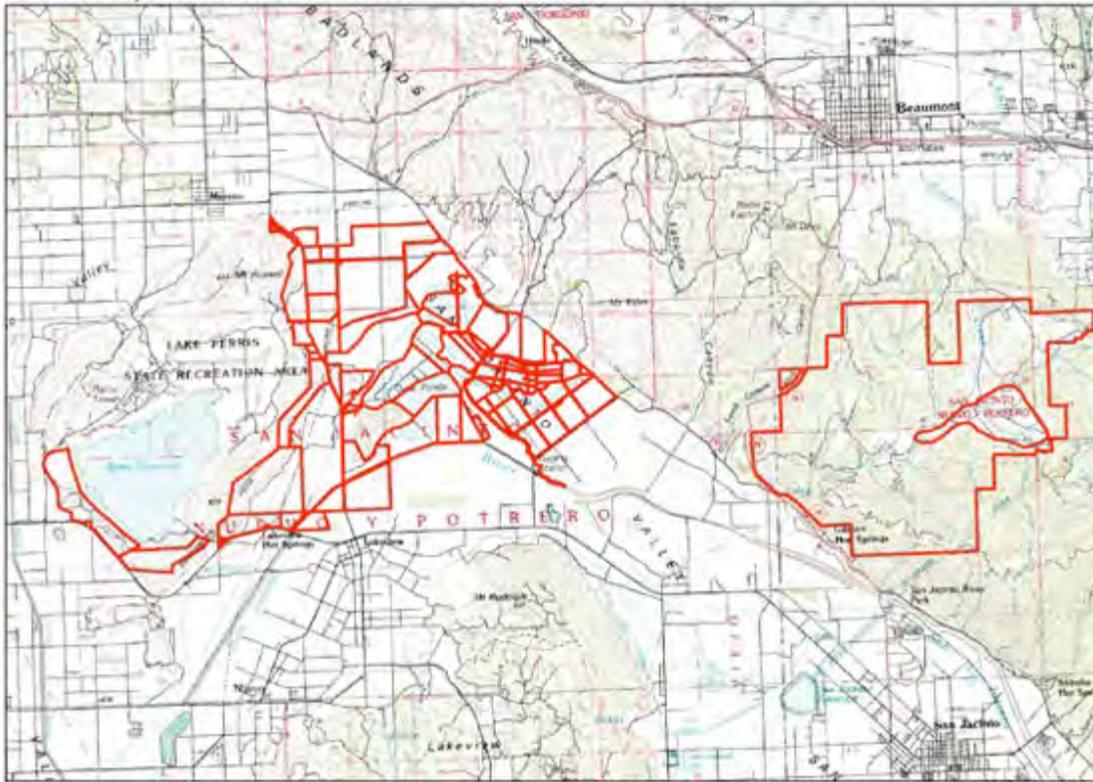
California Department of Fish and Game  
 Inland Deserts Region  
**SAN JACINTO WILDLIFE AREA**  
 Riverside County

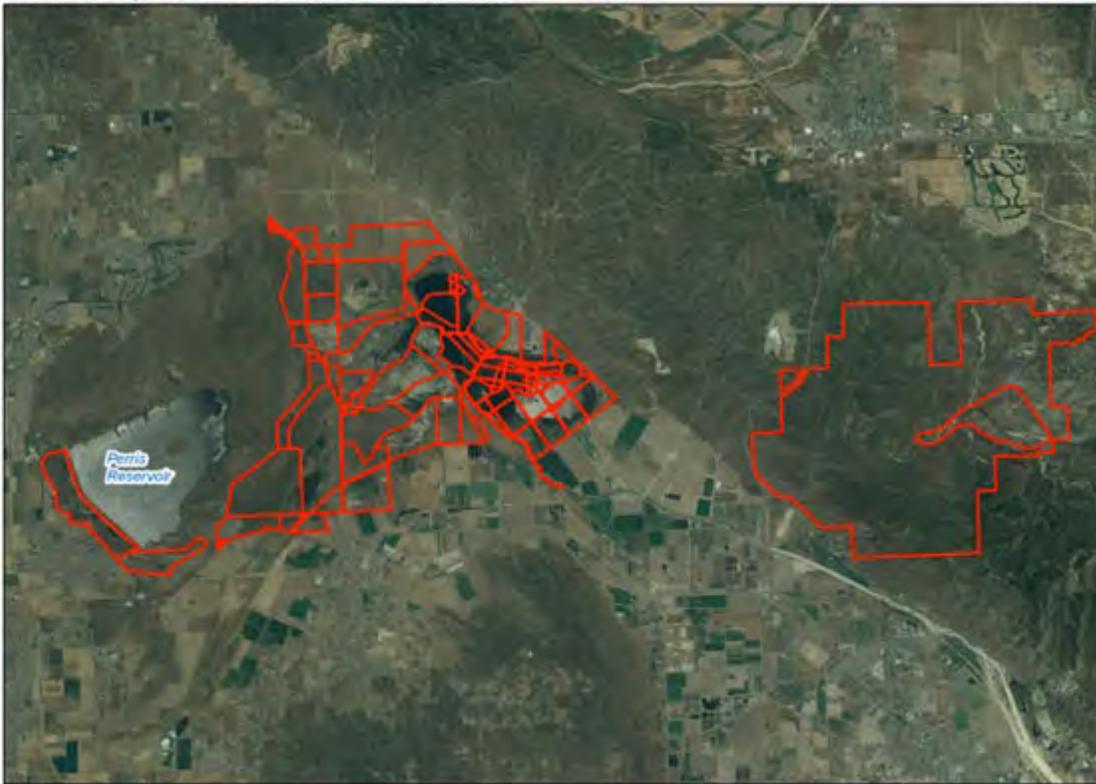


Wildlife Area	State Highway		
State Recreation Area	Interstate Highway		
Aqueduct	Local Road		

September 2008 - Stacy Lee, DFG - WB / BDB  
 Prepared by BDB for WB

California Department of Fish and Game - San Jacinto Wildlife Area





**From:** [George Hague](#)  
**To:** [Chris Ormsby](#)  
**Subject:** II Additional Sierra Club comments on Moreno Valley's GPU & CAP  
**Date:** Thursday, April 9, 2020 5:15:59 PM  
**Attachments:** [MV GPU & CAP SC commnets 4-9-2020.pdf](#)  
[ATT00001.htm](#)  
[image3dc4ef.PNG](#)  
[ATT00002.htm](#)

---

**Warning: External Email – Watch for Email Red Flags!**

Good evening Mr Ormsby,

Just want to make sure that when I use GPU and CAP throughout my letter I am referring to their Program Environmental Impact Report (PEIR).

Thank you,

George Hague

Begin forwarded message:

**From:** Chris Ormsby <[chriso@moval.org](mailto:chriso@moval.org)>  
**Subject:** RE: Additional Sierra Club comments on Moreno Valley's GPU & CAP  
**Date:** April 9, 2020 at 4:56:39 PM PDT  
**To:** 'George Hague' <[gbhague@gmail.com](mailto:gbhague@gmail.com)>

George,

This is to confirm that your comments have been received. I will pass your comments on to the City's consultant.

Chris

Chris Ormsby  
Senior Planner  
Community Development  
City of Moreno Valley  
p: 951.413.3229 | e: [chriso@moval.org](mailto:chriso@moval.org) <<mailto:chriso@moval.org>> w:  
[www.moval.org](http://www.moval.org) <<http://www.moval.org>>  
14177 Frederick St., Moreno Valley, CA 92553

[City of Moreno Valley] <<http://www.moval.org>>

-----Original Message-----

**From:** George Hague <[gbhague@gmail.com](mailto:gbhague@gmail.com)>  
**Sent:** Thursday, April 9, 2020 4:50 PM  
**To:** Chris Ormsby <[chriso@moval.org](mailto:chriso@moval.org)>  
**Subject:** Additional Sierra Club comments on Moreno Valley's GPU & CAP

Warning: External Email - Watch for Email Red Flags!

Good afternoon Mr Ormsby,

Please accept this attached additional comments from the the Sierra Club on Moreno Valley's General Plan Update and Climate Action Plan.

Please confirm you have received them in a timely manner and that you were able to open them.

Thank you,

George Hague

**Friends of the Northern San Jacinto Valley  
1610 Sams Canyon  
Beaumont, California 92223**

April 8, 2020

**Via:** U.S. Postal Service and Email: [chriso@moval.org](mailto:chriso@moval.org)

Chris Ormsby, AICP, Senior Planner  
Community Development Department  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, California 92553

**RECEIVED**

APR 13 2020

CITY OF MORENO VALLEY  
Planning Division

**Re: Notice of Preparation (NOP) of a Program Environmental Impact Report for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Housing Element Update, and Climate Action Plan.**

We have reviewed the City of Moreno Valley Notice of Preparation (NOP) of a Program Environmental Impact Report for **MoVal 2040: The Moreno Valley Comprehensive General Plan Update and Climate Action Plan**. In performing the Biological Resource analysis for the Comprehensive General Plan Update it is imperative to recognize/acknowledge the City of Moreno Valley is a signatory to the 1995 Stephen's Kangaroo Rat Habitat Conservation Plan (SKRHCP) and the 2004 Multiple Species Habitat Conservation Plan (MSHCP). It is also imperative for the City to recognize that compliance with the SKRHCP or the MSHCP is **not compliance** with the California Environmental Quality Act (CEQA).

In enacting the California Environmental Quality Act (CEQA) our legislature declared it is the policy of the state to *"prevent the elimination of fish and 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 representatives of all plant and animal communities."* (Public Resources Code § 21001(c)). *"Public agencies should not approve projects if there are **feasible alternatives** or **feasible mitigation measures**, which would substantially lessen **significant environmental effects**."* (Public Resources Code § 21002). *"The purpose of an Environmental Impact Report (EIR) is to identify the **Significant***

**effects** [impacts] on the environment, to identify **alternatives** to the project, and to indicate the manner in which those **significant effects** can be **mitigated or avoided.**" (Public Resources Code § 21001.1(a)). *"...it is the policy of the state that noncompliance with the information disclosure provisions of this division [CEQA] which precludes relevant information from being presented to the public agency, or noncompliance with substantive requirements of this division, [CEQA] may constitute a prejudicial abuse of discretion..."* (Public Resources Code § 21005(a)).

The City of Moreno Valley, the CEQA Lead Agency for the Comprehensive General Plan Update, continues to fail to properly acknowledge/recognize that the federal Endangered Species Act (ESA) prohibits the "take" (kill, capture and habitat destruction) of listed endangered or threatened species. More importantly in a like manner, the California Endangered Species Act (CESA) prohibits the "take" of endangered or threatened species listed by the California Fish and Game Commission. Under the 2004 Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) the "take" of **146 plant and animal species** [many of which are found within the City of Moreno Valley] are permitted for 75 years throughout western Riverside County. The "take" is allowed in exchange for assembly and management of coordinated **MSHCP Conservation Areas**, the most prominent being the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) partially located within the City of Moreno Valley eastern boundary.

Both the federal and state endangered species statutes provide for exceptions to their "take" prohibitions. The federal exception requires applicants to submit a Habitat Conservation Plan [the MSHCP]. If approved by the U.S. Fish and Wildlife Service the applicant will be issued an incidental "take" permit. Under California law the "take" exception is authorized pursuant to the Natural Community Conservation Planning Act (NCCP Act – Fish and Game Code §§ 2800-2835). After approval of a NCCP Act Conservation Plan, the CDFW permits the "take" of any covered species whose conservation and management is provided for in the NCCP approved by the CDFW. The NCCP Act section 2826 provides: **"Nothing in this chapter exempts a project proposed in a natural community planning area from Division 13 (commencing with section 21000) of the Public Resources Code [CEQA] or otherwise alters the applicability of that division."** The holding of the California Supreme Court bolsters this legislative intent: *"CESA can be harmonized*

*with CEQA.*” (Mountain Lion Foundation v. Fish and Game Commission (1997) 16 Cal. 4<sup>th</sup> 105, 111).

The March 9, 2020, City of Moreno Valley Notice of Preparation (NOP) specifically advises the public and reviewing agencies: *“Since the city has determined that a Program EIR is required for the Project, pursuant to Section 15060(d) of the CEQA Guidelines (14 CCR 15000 et seq.) preparation of an **Initial Study** is not required and, therefore, one has not been prepared.”* By omission the City neglected to recognize the important purposes of the **Initial Study**: *“Initial Study means a preliminary analysis prepared by the Lead Agency to determine whether an EIR or a Negative Declaration must be prepared **or to identify the significant environmental effects to be analyzed in the EIR.**”* (CEQA Guidelines § 15365)

With regard to the “take” of MSHCP Covered/Endangered species, we assert the City of Moreno Valley is endeavoring to ignore/avoid CEQA Guideline § 15065 (a)(1) and (a)(3) – **Mandatory Finding of Significance**. CEQA requires that an agency contemplating an action having the potential *“to...reduce the number or restrict the range [“take”] of an endangered species”* may have a significant effect on the environment (15065(a)(1)). Equally important, 15065(a)(3) requires the assessment of the incremental effects [cumulative impacts] of the “take” of individual species lost to Project implementation. This cumulative analysis will be crucial to the tracking and guidance of individual species conservation or extirpation.

When the City of Moreno Valley avoids/disregards **Mandatory Findings of Significance** it is able to avoid the identification/consideration of the “take” of MSHCP Covered species [Endangered species] as being a **significant** project impact. This error allows the City to avoid the required analysis of direct project impacts [“take” of MSHCP covered species on the project site] and indirect project impacts [“take” of MSHCP covered species on adjacent conservation lands/San Jacinto Wildlife Area]. It avoids the required analysis of “take” **alternatives** or **mitigation measures** to minimize the “take” impact. This error will be compounded if the Draft EIR fails to consider the Cumulative impact of the “take” of MSHCP covered species as to each species ultimate conservation or extirpation (Guidelines § 15065(a)(1) and (a)(3) – Mandatory Findings of Significance).

“[W]hen an agency fails to proceed as CEQA requires, harmless error analysis is inapplicable. The failure to comply with the law subverts the purposes of CEQA if it omits material necessary to informed decision making and informed participation. Case law is clear that in such cases, the error is prejudicial.”  
*(California Supreme Court, December 24, 2018, Sierra Club v. County of Fresno)*[515]

Please ensure we receive timely notice of completion of the Draft EIR for the Comprehensive General Plan Update and Climate Action Plan and the scheduling of any public hearings for this project,

Thank you for your courtesy.

  
Tom Paulek  
FNSJV Conservation Chair.

  
Susan Nash  
FNSJV President

## Appendix B

Emissions Summary

**DAILY EMISSIONS SUMMARY**

Existing (2018)	ROG	NOx	CO	SOx	PM10	PM2.5
Mobile	289	3,161	9,856	29	223	107
Energy	82	739	559	4	57	57
Area	2,521	53	4,599	0	25	25
Total	2,892	3,953	15,014	34	305	189

Adopted General Plan 2040	ROG	NOx	CO	SOx	PM10	PM2.5
Mobile	67	877	5,096	31	254	91
Energy	121	1,082	796	7	84	84
Area	4,969	73	6,365	0	35	35
Total	5,157	2,032	12,257	38	373	210

GPU 2040	ROG	NOx	CO	SOx	PM10	PM2.5
Mobile	67	869	5,049	31	252	90
Energy	117	1,050	784	6	81	81
Area	4,276	73	6,363	0	35	35
Total	4,460	1,993	12,196	38	368	207

Change Over Existing (2018)						
Mobile	-223	-2,292	-4,807	2	29	-17
Energy	35	312	225	2	24	24
Area	1,755	20	1,764	0	10	10
Total	1,567	-1,960	-2,818	4	64	18

Change Over Adopted GP (2040)						
Mobile	-1	-8	-47	0	-2	-1
Energy	-4	-31	-11	0	-3	-3
Area	-693	0	-2	0	0	0
Total	-697	-39	-61	0	-5	-3

Land Use

	Planning Area	County-wide	Local share of County
2018 Population	207,946	2,415,954	8.61%
2040 BAU Population	256,600	3,167,584	8.10%
2040 General Plan Population	252,179	3,167,584	7.96%

Growth Rates Based on Buildout:

	2018	2040 Business As Usual		2040 General Plan Update		
		Value	Rate	Value	Rate	
Residential, population	207,946.00	256,600.00	0.96%	252,179.00	0.88%	(4,421.00)
Residential, housing units	55,328.00	77,380.00	1.54%	77,380.00	1.54%	-
<i>Single-Family</i>	45,922.00	64,225.00	1.54%	52,130.00	0.58%	(12,095.00)
<i>Multi-Family</i>	9,406.00	13,155.00	1.54%	25,250.00	4.59%	12,095.00
Commercial, 1000 Sq Ft	6,990.89	13,228.97	2.94%	11,418.17	2.26%	(1,810.79)
Industrial, 1000 Sq Ft	5,824.15	71,645.20	12.08%	51,759.47	10.44%	(19,885.73)
Public facilities, 1000 Sq Ft	5,009.40	5,009.40	0.00%	5,009.40	0.00%	-
Agricultural, acreage	189.40	189.40	0.00%	189.40	0.00%	-
Parks, acreage	454.18	818.47	2.71%	818.47	2.71%	-
Jobs (All)	44,331.00	83,453.00	2.92%	83,453.00	2.92%	-
Service Population	252,277.00	340,053.00	1.37%	335,632.00	1.31%	(4,421.00)
Commercial + Public fac	12,000.29	18,238.37		16,427.57		

Vehicle Emissions

**VEHICLE EMISSIONS**

Year	VMT	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM10	PM2.5
Existing (2018)	3,144,986	289.39	3,160.81	9,856.27	29.34	222.56	107.25
2040 Adopted General Plan	4,566,084	67.31	877.08	5,095.83	31.18	254.05	91.29
2040 Proposed General Plan	4,524,038	66.69	869.00	5,048.90	30.89	251.71	90.45
	-42,046						

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Diesel	200.14	10,314.12	10,314.12	0.00	1,781.23	0.00
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Natural Gas	15.78	1,099.93	1,099.93	0.00	140.41	0.00
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Gasoline	470,353.86	20,084,315.37	20,084,315.37	0.00	2,218,531.63	0.00
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Diesel	1,705.25	67,716.52	67,716.52	0.00	7,746.23	0.00
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Electricity	2,772.16	100,813.29	0.00	100,813.29	14,029.19	38,922.25
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Plug-in Hybrid	5,988.52	310,675.70	168,346.35	142,329.35	29,433.56	42,887.71
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Gasoline	47,017.95	1,711,958.78	1,711,958.78	0.00	207,311.40	0.00
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Diesel	50.21	1,059.90	1,059.90	0.00	164.65	0.00
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Electricity	19.23	521.58	0.00	521.58	88.44	201.37
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.50	27.31	14.80	12.51	2.47	3.78
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Gasoline	166,305.45	6,870,003.87	6,870,003.87	0.00	777,312.21	0.00
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Diesel	465.26	22,753.11	22,753.11	0.00	2,279.97	0.00
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Electricity	9.22	249.19	0.00	249.19	43.87	96.21
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Plug-in Hybrid	61.00	3,330.43	1,804.66	1,525.76	299.82	460.83
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Gasoline	18,438.17	642,791.10	642,791.10	0.00	274,701.30	0.00
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Diesel	16,110.23	606,557.42	606,557.42	0.00	202,646.40	0.00
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Gasoline	2,526.47	87,899.61	87,899.61	0.00	37,640.56	0.00
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Diesel	6,354.44	247,662.20	247,662.20	0.00	79,930.86	0.00
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Gasoline	25,195.28	157,184.17	157,184.17	0.00	50,398.57	0.00
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Gasoline	162,220.69	6,339,248.41	6,339,248.41	0.00	748,944.77	0.00
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Diesel	1,895.73	86,229.36	86,229.36	0.00	9,260.08	0.00
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Electricity	5.65	107.45	0.00	107.45	24.14	41.49
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Plug-in Hybrid	377.43	19,675.40	10,661.54	9,013.86	1,855.06	2,722.45
Riverside (SC)	2018	MH	Aggregate	Aggregate	Gasoline	6,345.40	56,727.28	56,727.28	0.00	634.79	0.00
Riverside (SC)	2018	MH	Aggregate	Aggregate	Diesel	2,161.43	20,354.20	20,354.20	0.00	216.14	0.00
Riverside (SC)	2018	Motor Coach	Aggregate	Aggregate	Diesel	45.24	5,078.84	5,078.84	0.00	1,039.71	0.00
Riverside (SC)	2018	OBUS	Aggregate	Aggregate	Gasoline	454.18	17,106.31	17,106.31	0.00	9,087.30	0.00
Riverside (SC)	2018	PTO	Aggregate	Aggregate	Diesel	5.00	46,051.66	46,051.66	0.00	0.00	0.00
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Gasoline	470.06	17,616.15	17,616.15	0.00	1,889.24	0.00
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Diesel	544.86	12,006.78	12,006.78	0.00	7,889.54	0.00
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Natural Gas	355.80	9,057.23	9,057.23	0.00	5,151.97	0.00
Riverside (SC)	2018	TG CAIRP Class 4	Aggregate	Aggregate	Diesel	3.88	267.20	267.20	0.00	89.27	0.00
Riverside (SC)	2018	TG CAIRP Class 5	Aggregate	Aggregate	Diesel	5.30	305.54	305.54	0.00	121.71	0.00
Riverside (SC)	2018	TG CAIRP Class 6	Aggregate	Aggregate	Diesel	13.44	957.79	957.79	0.00	308.86	0.00
Riverside (SC)	2018	TG CAIRP Class 7	Aggregate	Aggregate	Diesel	32.76	6,001.21	6,001.21	0.00	752.77	0.00
Riverside (SC)	2018	TG CAIRP Class 8	Aggregate	Aggregate	Natural Gas	0.03	6.53	6.53	0.00	0.73	0.00
Riverside (SC)	2018	TG Instate Delivery Class 4	Aggregate	Aggregate	Diesel	467.08	13,767.04	13,767.04	0.00	6,663.22	0.00
Riverside (SC)	2018	TG Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.50	16.73	16.73	0.00	7.19	0.00
Riverside (SC)	2018	TG Instate Delivery Class 6	Aggregate	Aggregate	Diesel	399.83	13,169.20	13,169.20	0.00	5,705.56	0.00
Riverside (SC)	2018	TG Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.73	24.71	24.71	0.00	10.47	0.00
Riverside (SC)	2018	TG Instate Delivery Class 8	Aggregate	Aggregate	Diesel	1,284.72	38,015.73	38,015.73	0.00	18,332.99	0.00
Riverside (SC)	2018	TG Instate Delivery Class 9	Aggregate	Aggregate	Natural Gas	5.71	120.73	120.73	0.00	52.85	0.00
Riverside (SC)	2018	TG Instate Delivery Class 10	Aggregate	Aggregate	Diesel	218.10	8,765.96	8,765.96	0.00	3,112.35	0.00
Riverside (SC)	2018	TG Instate Delivery Class 11	Aggregate	Aggregate	Natural Gas	2.25	97.56	97.56	0.00	32.13	0.00
Riverside (SC)	2018	TG Instate Delivery Class 12	Aggregate	Aggregate	Diesel	1,678.09	58,147.84	58,147.84	0.00	19,398.69	0.00
Riverside (SC)	2018	TG Instate Other Class 4	Aggregate	Aggregate	Natural Gas	1.93	83.78	83.78	0.00	22.32	0.00
Riverside (SC)	2018	TG Instate Other Class 5	Aggregate	Aggregate	Diesel	3,061.16	146,871.92	146,871.92	0.00	39,870.66	0.00
Riverside (SC)	2018	TG Instate Other Class 6	Aggregate	Aggregate	Natural Gas	6.08	310.88	310.88	0.00	70.25	0.00
Riverside (SC)	2018	TG Instate Other Class 7	Aggregate	Aggregate	Diesel	2,514.27	102,691.91	102,691.91	0.00	29,064.91	0.00
Riverside (SC)	2018	TG Instate Other Class 8	Aggregate	Aggregate	Natural Gas	5.13	249.26	249.26	0.00	59.34	0.00
Riverside (SC)	2018	TG Instate Other Class 9	Aggregate	Aggregate	Diesel	1,328.29	54,005.72	54,005.72	0.00	18,355.02	0.00
Riverside (SC)	2018	TG Instate Other Class 10	Aggregate	Aggregate	Natural Gas	15.68	1,011.45	1,011.45	0.00	181.27	0.00
Riverside (SC)	2018	TG Instate Tractor Class 6	Aggregate	Aggregate	Diesel	20.49	770.98	770.98	0.00	236.89	0.00
Riverside (SC)	2018	TG Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.06	3.32	3.32	0.00	0.67	0.00
Riverside (SC)	2018	TG Instate Tractor Class 8	Aggregate	Aggregate	Diesel	478.94	23,721.56	23,721.56	0.00	5,536.51	0.00
Riverside (SC)	2018	TG Instate Tractor Class 9	Aggregate	Aggregate	Natural Gas	3.18	209.24	209.24	0.00	36.71	0.00
Riverside (SC)	2018	TG OOS Class 4	Aggregate	Aggregate	Diesel	2.24	154.13	154.13	0.00	51.50	0.00
Riverside (SC)	2018	TG OOS Class 5	Aggregate	Aggregate	Diesel	3.06	211.44	211.44	0.00	70.21	0.00
Riverside (SC)	2018	TG OOS Class 6	Aggregate	Aggregate	Diesel	7.75	552.51	552.51	0.00	178.17	0.00
Riverside (SC)	2018	TG OOS Class 7	Aggregate	Aggregate	Diesel	18.91	4,017.42	4,017.42	0.00	434.66	0.00
Riverside (SC)	2018	TG Public Class 4	Aggregate	Aggregate	Diesel	89.09	2,689.89	2,689.89	0.00	457.02	0.00
Riverside (SC)	2018	TG Public Class 5	Aggregate	Aggregate	Natural Gas	1.08	43.12	43.12	0.00	5.52	0.00
Riverside (SC)	2018	TG Public Class 6	Aggregate	Aggregate	Diesel	118.87	4,283.38	4,283.38	0.00	609.83	0.00
Riverside (SC)	2018	TG Public Class 7	Aggregate	Aggregate	Natural Gas	17.29	721.73	721.73	0.00	88.69	0.00
Riverside (SC)	2018	TG Public Class 8	Aggregate	Aggregate	Diesel	201.01	6,237.60	6,237.60	0.00	1,031.18	0.00
Riverside (SC)	2018	TG Public Class 9	Aggregate	Aggregate	Natural Gas	5.35	228.22	228.22	0.00	27.32	0.00
Riverside (SC)	2018	TG Public Class 10	Aggregate	Aggregate	Diesel	319.91	13,108.03	13,108.03	0.00	1,641.15	0.00
Riverside (SC)	2018	TG Public Class 11	Aggregate	Aggregate	Natural Gas	9.13	597.41	597.41	0.00	46.83	0.00
Riverside (SC)	2018	TG Utility Class 5	Aggregate	Aggregate	Diesel	172.67	7,024.48	7,024.48	0.00	2,210.16	0.00
Riverside (SC)	2018	TG Utility Class 6	Aggregate	Aggregate	Natural Gas	0.78	32.38	32.38	0.00	10.03	0.00
Riverside (SC)	2018	TG Utility Class 7	Aggregate	Aggregate	Diesel	35.94	1,319.55	1,319.55	0.00	460.00	0.00
Riverside (SC)	2018	TG Utility Class 8	Aggregate	Aggregate	Natural Gas	0.36	14.05	14.05	0.00	4.65	0.00
Riverside (SC)	2018	TG Utility Class 9	Aggregate	Aggregate	Diesel	42.93	1,830.34	1,830.34	0.00	549.49	0.00
Riverside (SC)	2018	TG Utility Class 10	Aggregate	Aggregate	Natural Gas	0.54	25.15	25.15	0.00	6.86	0.00
Riverside (SC)	2018	TGIS	Aggregate	Aggregate	Gasoline	1,351.55	49,576.94	49,576.94	0.00	27,041.91	0.00
Riverside (SC)	2018	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	1,509.35	330,811.89	330,811.89	0.00	34,684.86	0.00
Riverside (SC)	2018	T7 CAIRP Class 9	Aggregate	Aggregate	Natural Gas	5.33	1,294.76	1,294.76	0.00	122.54	0.00
Riverside (SC)	2018	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	1,465.98	393,278.97	393,278.97	0.00	33,688.14	0.00
Riverside (SC)	2018	T7 NNOOS Class 9	Aggregate	Aggregate	Diesel	566.18	142,800.00	142,800.00	0.00	13,010.78	0.00
Riverside (SC)	2018	T7 POLA Class 8	Aggregate	Aggregate	Diesel	1,747.02	225,877.57	225,877.57	0.00	28,581.18	0.00
Riverside (SC)	2018	T7 POLA Class 9	Aggregate	Aggregate	Natural Gas	87.16	11,244.89	11,244.89	0.00	1,426.01	0.00
Riverside (SC)	2018	T7 Public Class 8	Aggregate	Aggregate	Diesel	720.40	29,134.54	29,134.54	0.00	3,695.67	0.00
Riverside (SC)	2018	T7 Public Class 9	Aggregate	Aggregate	Natural Gas	82.10	4,561.23	4,561.23	0.00	421.17	0.00
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Diesel	1,253.32	87,956.11	87,956.11	0.00	11,808.32	0.00
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 9	Aggregate	Aggregate	Natural Gas	62.20	5,202.93	5,202.93	0.00	585.97	0.00
Riverside (SC)	2018	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	1,335.93	68,425.78	68,425.78	0.00	12,584.49	0.00
Riverside (SC)	2018	T7 Single Dump Class 9	Aggregate	Aggregate	Natural Gas	56.29	4,181.38	4,181.38	0.00	530.26	0.00
Riverside (SC)	2018	T7 Single Other Class 8	Aggregate	Aggregate	Diesel	1,179.89	62,687.59	62,687.59	0.00	11,112.66	0.00
Riverside (SC)	2018	T7 Single Other Class 9	Aggregate	Aggregate	Natural Gas	46.14	3,471.60	3,471.60	0.00	434.61	0.00
Riverside (SC)	2018	T7 SWCV Class 8</									

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for ROG

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	ROG_RUNEX	ROG_GRAMS	ROG_LBS	NOx_RUNEX	NOx_GRAMS	NOx_LBS	CO_RUNEX	CO_GRAMS	CO_LBS	SOx_RUNEX	SOx_GRAMS	SOx_LBS
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Diesel	0.57095	5,888.87179	12.98275	8.80810	90,847.88119	200.28516	1.28107	16,307.38136	35.95158	0.01042	103.35616	0.22820
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Natural Gas	0.00538	5.91219	0.01303	0.14228	156.49685	0.34502	2.28036	2.508.22509	5.52969	0.00000	0.00000	0.00000
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Gasoline	0.01806	362,753.13434	799.73442	0.07397	1,485,669.86777	3,275.34407	1.09396	21,971.362.06695	48,438.60136	0.00003	60,908.14866	134.27959
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Gasoline	0.03603	2,439.82238	5.37889	0.33460	22,658.09264	49.95258	0.37662	25,503.38278	56.22538	0.00233	157.53887	0.34731
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Plug-in Hybrid	0.00143	444.62407	0.98923	0.00225	1,010.51196	2.22780	0.23793	73,919.20767	162.96409	0.00146	453.82274	1.00000
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Gasoline	0.07077	121,162.52243	267.11792	0.29448	504,131.24437	1,111.42005	2.97647	5,095.595.01000	11,233.87319	0.00360	6,168.51141	13.59925
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Diesel	0.29538	313.07716	0.69022	1.58195	1,676.71131	3.69652	1.82673	1,596.15502	4.26849	0.00413	4.37411	0.00964
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.00143	0.03909	0.00000	0.00225	0.08884	0.00020	0.23793	6.19845	0.01433	0.00146	0.00290	0.00009
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Gasoline	0.02811	193,145.31018	425.81287	0.18225	1,135,241.38177	2,502.78087	1.12202	10,456,300.54881	23,052.21553	0.00390	26,809.45191	59.10477
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Diesel	0.02538	577.38628	1.27292	0.11383	2,590.03357	5.71005	0.16462	3,745.67359	8.25780	0.00317	72.14857	0.15906
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Plug-in Hybrid	0.00143	1.76634	0.01051	0.00225	10.83263	0.02388	0.23793	792.40966	1.74897	0.00146	4.86538	0.01073
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Gasoline	0.04370	28,087.80778	61.92907	0.29740	184,736.02568	407.27355	1.44474	928,664.17425	2,047.35572	0.00705	4,529.84410	9.98660
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Diesel	0.14869	90,190.06961	198.83523	2.95774	1,704,041.95945	3,955.18871	0.51936	31,024.37695	69,451,043	0.00146	2,849.03662	6.28104
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Gasoline	0.02920	2,566.99986	5.65927	0.23994	21,090.27758	46.49614	1.03554	92,606.17112	204.16183	0.00778	684.24758	1.50851
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Diesel	0.12530	31,032.90907	68.41591	2.20253	545,483.15153	1,202.58548	0.37710	93,394.29358	205.89934	0.00573	1,418.76672	3.12785
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Gasoline	1.37674	216,402.02566	477.08520	0.68196	107,193.95354	236.32241	17.22236	2,707,082.21338	5,968.69978	0.00192	302.21464	0.66039
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Gasoline	0.04084	298,888.64873	570.75224	0.24036	1,490,289.65824	3,219.20924	1.85149	11,737,064.32018	25,875.81862	0.00472	29,966.92232	65.93287
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Diesel	0.01573	1,356.55139	2.99069	0.11898	10,259.81195	22.61903	0.21829	18,823.16454	41.49801	0.00419	360.96520	0.79580
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Plug-in Hybrid	0.00143	28.15848	0.06208	0.00225	63.99671	0.14109	0.23793	1,681.37394	10.32068	0.00146	28.74357	0.06337
Riverside (SC)	2018	MH	Aggregate	Aggregate	Gasoline	0.05752	5,525.79958	12.18251	0.53272	30,219.64735	66.62997	3.27598	185,837.32952	409.70151	0.01742	988.11192	2.17842
Riverside (SC)	2018	MH	Aggregate	Aggregate	Diesel	0.07560	1,538.76734	3.39240	0.65949	94,840.19512	209.08701	0.35147	7,153.81094	15.71147	0.00926	188.57156	0.41573
Riverside (SC)	2018	Motor Coach	Aggregate	Aggregate	Diesel	0.21657	1,099.93992	2.42495	4.98174	25,301.48508	55.78027	0.81197	4,123.84308	9.90153	0.01612	81.58007	0.18047
Riverside (SC)	2018	OBUS	Aggregate	Aggregate	Gasoline	0.07877	1,347.42062	2.97056	0.69082	11,817.35832	26.05284	2.16020	36,952.99440	81.46747	0.01707	291.93694	0.64361
Riverside (SC)	2018	PTO	Aggregate	Aggregate	Diesel	0.38578	17,765.61174	39.16650	6.74841	310,775.40278	685.14317	1.33121	61,304.50616	135.15341	0.02073	98.48183	2.10567
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Gasoline	0.24911	4,388.35412	8.67463	0.61818	10,800.01969	24.00840	0.57635	94,763.48113	208.01788	0.00181	161.62921	0.36638
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Diesel	0.16533	1,985.05541	4.37630	9.28071	111,431.54022	245.66469	0.38979	4,680.15314	10.31798	0.01221	146.63634	0.32328
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Natural Gas	0.07470	676.55685	1.49155	1.06335	9,929.87080	21.89164	18.83855	170,624.97479	376.16399	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.09820	26.23944	0.05785	2.61690	699.14343	1.54135	0.34491	92.15930	0.20318	0.01046	2.79518	0.00616
Riverside (SC)	2018	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	0.07752	28.41267	0.06264	2.03959	747.73261	1.64847	0.24967	108.12548	0.23838	0.01046	3.83286	0.00846
Riverside (SC)	2018	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	0.10746	102.91947	0.22690	2.68622	2,572.83435	5.67213	0.40624	389.09349	0.85781	0.01046	9.83969	0.02169
Riverside (SC)	2018	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	0.09835	590.22445	1.30122	2.65530	15,934.99256	35.13067	0.35024	2,101.88747	4.63387	0.00978	58.70399	0.12942
Riverside (SC)	2018	T6 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	0.00502	0.03281	0.00007	0.14840	0.96920	0.00214	2.36239	15.42935	0.03402	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	0.29080	4,003.44979	8.82610	6.37224	87,726.87967	193.40482	1.03946	14,310.30147	31.84884	0.01022	140.63317	0.31004
Riverside (SC)	2018	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.00522	0.00856	0.00002	0.15626	2.61474	0.00577	2.40807	40.29403	0.08883	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	0.14976	1,972.23038	4.34803	3.28423	43,250.64396	95.35143	0.55988	7,361.29060	16.22888	0.01036	136.38733	0.30068
Riverside (SC)	2018	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.00532	0.13150	0.00029	0.15626	3.86090	0.00851	2.40807	59.49767	0.13117	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Delivery Class 8	Aggregate	Aggregate	Diesel	0.27515	10,459.91565	23.06919	6.19233	235,405.86272	518.98151	0.92127	35,022.90778	77.21236	0.01007	382.95136	0.84426
Riverside (SC)	2018	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	0.19848	0.61257	0.00142	0.15626	18.86293	0.04159	2.40807	290.73010	0.64095	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	0.22030	1,931.12240	4.25740	6.25234	54,815.68879	120.84801	0.67773	5,940.98526	13.09764	0.01008	88.39676	0.19488
Riverside (SC)	2018	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	0.00585	0.57076	0.00126	0.12867	12.55313	0.02767	2.17982	212.65933	0.46883	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	0.28147	16,366.86724	36.08240	6.10012	354,708.51777	781.99972	1.00438	58,402.53864	128.75566	0.01025	595.84991	1.31363
Riverside (SC)	2018	T6 Instate Other Class 8	Aggregate	Aggregate	Natural Gas	0.00528	0.44250	0.00008	0.15530	13.01143	0.02869	2.40246	201.28315	0.44375	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Other Class 9	Aggregate	Aggregate	Diesel	0.12975	17,734.80305	39.08588	2.62572	385,614.17159	850.30966	0.47663	60,563.07568	132.99916	0.01029	1,529.41161	3.36413
Riverside (SC)	2018	T6 Instate Other Class 10	Aggregate	Aggregate	Natural Gas	0.00528	1.64229	0.00362	0.15530	48.28024	0.10614	2.40246	74.688145	1.64659	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Other Class 11	Aggregate	Aggregate	Diesel	0.21773	22,358.64887	49.29242	4.66814	479,380.15557	1,056.85320	0.78825	80,946.57819	178.14580	0.01021	1,048.98911	2.31245
Riverside (SC)	2018	T6 Instate Other Class 12	Aggregate	Aggregate	Natural Gas	0.00528	1.31677	0.00290	0.15530	38.71065	0.08534	2.40246	598.84261	1.32022	0.00000	0.00000	0.00000
Riverside (SC)	2018	T6 Instate Other Class 13	Aggregate	Aggregate	Diesel	0.19848	10,730.65316	23.65576	4.94520	267,069.24254	588.75757	0.61196	33,019.41807	72.86155	0.01030	556.08834	1.22592
Riverside (SC)	2018	T6 Instate Tractor Class 4	Aggregate	Aggregate	Natural Gas	0.00813											

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM10_GRAMS	PM10_LBS
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Diesel	0.35315	0.01200	0.04204	4,199,88055	9.25916
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Natural Gas	0.00042	0.01200	0.04204	59,90044	0.13206
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Gasoline	0.00144	0.00800	0.00690	328,133.69061	723.41155
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Diesel	0.02363	0.00800	0.00689	2,608.26850	5.75025
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00436	1,246.14780	2.74729
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Plug-in Hybrid	0.00088	0.00800	0.00372	3,915.70204	8.63265
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Gasoline	0.00308	0.00800	0.00834	33,236.57833	73.27417
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Diesel	0.22848	0.00800	0.00946	280.66906	0.57468
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00440	6.46952	0.01426
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.00106	0.00800	0.00371	0.34899	0.00077
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Gasoline	0.00159	0.00800	0.00801	120,944.64190	266.63751
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Diesel	0.01421	0.00800	0.00737	673.10650	1.48395
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00440	3.09003	0.00681
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Plug-in Hybrid	0.00105	0.00800	0.00371	42.51642	0.09373
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Gasoline	0.00128	0.00800	0.07800	56,105.07484	123.69962
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Diesel	0.03796	0.01200	0.07800	77,614.86233	171.11162
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Gasoline	0.00104	0.00800	0.09100	8,793.29692	19.38592
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Diesel	0.03208	0.01200	0.09100	33,454.51521	73.75464
Riverside (SC)	2018	MCY	Aggregate	Aggregate	Gasoline	0.00176	0.00400	0.01200	2,791.35983	6.15390
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Gasoline	0.00162	0.00800	0.00827	113,414.96816	250.03542
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Diesel	0.00863	0.00800	0.00766	2,094.36762	4.61729
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00445	1.33796	0.00295
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Plug-in Hybrid	0.00107	0.00800	0.00371	251.39336	0.55423
Riverside (SC)	2018	MH	Aggregate	Aggregate	Gasoline	0.00152	0.01200	0.04217	3,159.42740	6.96535
Riverside (SC)	2018	MH	Aggregate	Aggregate	Diesel	0.16071	0.01600	0.04211	4,453.81224	9.81898
Riverside (SC)	2018	Motor Coach	Aggregate	Aggregate	Diesel	0.12991	0.01200	0.08373	1,145.99352	2.52649
Riverside (SC)	2018	OBUS	Aggregate	Aggregate	Gasoline	0.00055	0.01200	0.04204	933.86742	2.05883
Riverside (SC)	2018	PTO	Aggregate	Aggregate	Diesel	0.13881	0.00000	0.00000	6,392.50801	14.09308
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Gasoline	0.00197	0.00800	0.04685	1,000.92948	2.20987
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Diesel	0.06202	0.01200	0.04685	1,451.18550	3.19932
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Natural Gas	0.00448	0.01200	0.04685	573.57508	1.26452
Riverside (SC)	2018	TG CAIRP Class 4	Aggregate	Aggregate	Diesel	0.08024	0.01200	0.04205	35.88083	0.07910
Riverside (SC)	2018	TG CAIRP Class 5	Aggregate	Aggregate	Diesel	0.07030	0.01200	0.04205	45.57903	0.10048
Riverside (SC)	2018	TG CAIRP Class 6	Aggregate	Aggregate	Diesel	0.09733	0.01200	0.04205	144.99283	0.31965
Riverside (SC)	2018	TG CAIRP Class 7	Aggregate	Aggregate	Diesel	0.08288	0.01200	0.04205	821.72602	1.81160
Riverside (SC)	2018	TG CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.00033	0.01200	0.04205	0.35516	0.00078
Riverside (SC)	2018	TG Instate Delivery Class 4	Aggregate	Aggregate	Diesel	0.23591	0.01200	0.04223	3,994.35462	8.80005
Riverside (SC)	2018	TG Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04223	0.35516	0.00078
Riverside (SC)	2018	TG Instate Delivery Class 5	Aggregate	Aggregate	Diesel	0.13008	0.01200	0.04223	2,427.20339	5.35107
Riverside (SC)	2018	TG Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04223	1.34839	0.00297
Riverside (SC)	2018	TG Instate Delivery Class 6	Aggregate	Aggregate	Diesel	0.22429	0.01200	0.04223	10,588.17656	23.34295
Riverside (SC)	2018	TG Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04223	6.58878	0.01453
Riverside (SC)	2018	TG Instate Delivery Class 7	Aggregate	Aggregate	Diesel	0.15180	0.01200	0.04223	1,806.08343	3.98174
Riverside (SC)	2018	TG Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.00054	0.01200	0.04223	5.34357	0.01178
Riverside (SC)	2018	TG Instate Other Class 4	Aggregate	Aggregate	Diesel	0.23288	0.01200	0.04221	16,693.92814	36.80384
Riverside (SC)	2018	TG Instate Other Class 4	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04221	4.57074	0.01008
Riverside (SC)	2018	TG Instate Other Class 5	Aggregate	Aggregate	Diesel	0.11153	0.01200	0.04221	24,343.02748	53.67723
Riverside (SC)	2018	TG Instate Other Class 5	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04221	16.96019	0.03739
Riverside (SC)	2018	TG Instate Other Class 6	Aggregate	Aggregate	Diesel	0.18389	0.01200	0.04221	24,451.69741	53.90681
Riverside (SC)	2018	TG Instate Other Class 6	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04221	13.59852	0.02998
Riverside (SC)	2018	TG Instate Other Class 7	Aggregate	Aggregate	Diesel	0.14332	0.01200	0.04221	10,967.72457	23.51833
Riverside (SC)	2018	TG Instate Other Class 7	Aggregate	Aggregate	Natural Gas	0.00066	0.01200	0.04221	55.50298	0.12236
Riverside (SC)	2018	TG Instate Tractor Class 6	Aggregate	Aggregate	Diesel	0.25830	0.01200	0.04221	240.94482	0.53119
Riverside (SC)	2018	TG Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.00034	0.01200	0.04221	0.18103	0.00040
Riverside (SC)	2018	TG Instate Tractor Class 7	Aggregate	Aggregate	Diesel	0.12284	0.01200	0.04221	4,200.10259	9.25965
Riverside (SC)	2018	TG Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.00049	0.01200	0.04221	11.44708	0.02524
Riverside (SC)	2018	TG OOS Class 4	Aggregate	Aggregate	Diesel	0.08024	0.01200	0.04205	20.69811	0.04563
Riverside (SC)	2018	TG OOS Class 5	Aggregate	Aggregate	Diesel	0.07030	0.01200	0.04205	26.29259	0.05797
Riverside (SC)	2018	TG OOS Class 6	Aggregate	Aggregate	Diesel	0.09733	0.01200	0.04205	83.64014	0.18440
Riverside (SC)	2018	TG OOS Class 7	Aggregate	Aggregate	Diesel	0.09021	0.01200	0.04205	579.54830	1.27769
Riverside (SC)	2018	TG Public Class 4	Aggregate	Aggregate	Diesel	0.03961	0.01200	0.04211	292.87491	0.55749
Riverside (SC)	2018	TG Public Class 4	Aggregate	Aggregate	Natural Gas	0.00033	0.01200	0.04211	2.34758	0.00518
Riverside (SC)	2018	TG Public Class 5	Aggregate	Aggregate	Diesel	0.02443	0.01200	0.04211	336.41007	0.74166
Riverside (SC)	2018	TG Public Class 5	Aggregate	Aggregate	Natural Gas	0.00060	0.01200	0.04211	39.48706	0.08705
Riverside (SC)	2018	TG Public Class 6	Aggregate	Aggregate	Diesel	0.05679	0.01200	0.04211	691.75084	1.52505
Riverside (SC)	2018	TG Public Class 6	Aggregate	Aggregate	Natural Gas	0.00063	0.01200	0.04211	12.49274	0.02754
Riverside (SC)	2018	TG Public Class 7	Aggregate	Aggregate	Diesel	0.06484	0.01200	0.04211	1,859.16093	3.43736
Riverside (SC)	2018	TG Public Class 7	Aggregate	Aggregate	Natural Gas	0.00061	0.01200	0.04211	32.68798	0.07206
Riverside (SC)	2018	TG Utility Class 5	Aggregate	Aggregate	Diesel	0.00981	0.01200	0.04211	448.96087	0.98979
Riverside (SC)	2018	TG Utility Class 5	Aggregate	Aggregate	Natural Gas	0.00033	0.01200	0.04211	1.76285	0.00389
Riverside (SC)	2018	TG Utility Class 6	Aggregate	Aggregate	Diesel	0.01528	0.01200	0.04211	91.55827	0.20185
Riverside (SC)	2018	TG Utility Class 6	Aggregate	Aggregate	Natural Gas	0.00033	0.01200	0.04211	0.76495	0.00169
Riverside (SC)	2018	TG Utility Class 7	Aggregate	Aggregate	Diesel	0.01416	0.01200	0.04211	124.05826	0.27549
Riverside (SC)	2018	TG Utility Class 7	Aggregate	Aggregate	Natural Gas	0.00033	0.01200	0.04211	1.36911	0.00302
Riverside (SC)	2018	TG Utility Class 7	Aggregate	Aggregate	Gasoline	0.00133	0.01200	0.04217	2,746.89837	6.05588
Riverside (SC)	2018	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	0.08617	0.03600	0.07826	66,307.10081	146.18225
Riverside (SC)	2018	T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	0.00125	0.03600	0.07457	144.78105	0.31919
Riverside (SC)	2018	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	0.11840	0.03600	0.07804	91,413.19076	201.53175
Riverside (SC)	2018	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	0.09697	0.03600	0.07846	30,192.54491	66.56322
Riverside (SC)	2018	T7 POLA Class 8	Aggregate	Aggregate	Diesel	0.03698	0.03600	0.08395	35,446.24877	78.14567
Riverside (SC)	2018	T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	0.00101	0.03600	0.08210	1,339.39319	2.95286
Riverside (SC)	2018	T7 Public Class 8	Aggregate	Aggregate	Diesel	0.08164	0.03600	0.09597	6,223.43097	13.72033
Riverside (SC)	2018	T7 Public Class 8	Aggregate	Aggregate	Natural Gas	0.00110	0.03600	0.07937	531.25998	1.17123
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Diesel	0.10403	0.03600	0.08013	19,994.23002	42.69885
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Natural Gas	0.00146	0.03600	0.07443	882.15128	1.28342
Riverside (SC)	2018	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	0.12986	0.03600	0.08419	17,110.10248	37.72135
Riverside (SC)	2018	T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	0.00145	0.03600	0.07628	475.52197	1.04835
Riverside (SC)	2018	T7 Single Other Class 8	Aggregate	Aggregate	Diesel	0.10991	0.03600	0.08480	17,659.82445	38.93328
Riverside (SC)	2018	T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	0.00141	0.03600	0.07712	397.57774	0.87651
Riverside (SC)	2018	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	0.01548	0.03600	0.21000	1,691.60176	3.72935
Riverside (SC)	2018	T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	0.01084	0.03600	0.21000	1,147.81109	2.53049
Riverside (SC)	2018	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	0.11745	0.03600	0.08261	63,647.64866	140.31916
Riverside (SC)	2018	T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	0.00122	0.03600	0.07438	620.98435	1.14857
Riverside (SC)	2018	T7 Utility Class 8	Aggregate	Aggregate	Diesel	0.01842	0.03600	0.07850	740.64592	1.63285
Riverside (SC)	2018	T7IS	Aggregate	Aggregate	Gasoline	0.00392	0.02000	0.09365	66.04133	0.14560
Riverside (SC)	2018	UBUS	Aggregate	Aggregate	Gasoline	0.00120	0.01050	0.10287	2,741.17452	6.04326
Riverside (SC)	2018	UBUS	Aggregate	Aggregate	Diesel	0.00220	0.01200	0.11000	3,89996	0.00813
Riverside (SC)	2018	UBUS	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.05500	0.12092	0.00027
Riverside (SC)	2018	UBUS	Aggregate	Aggregate	Natural Gas	0.00019	0.03026	0.11000	4,342.52993	9.57365

grams 1,278,684.08831  
grams/mile 0.03210  
pounds 2,819.01817  
pounds/mile 0.00007

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVM and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM2.5_RUNEX	PM2.5_PMTW	PM2.5_PMBW	PM2.5_GRAMS	PM2.5_LBS
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Diesel	0.33788	0.00300	0.01471	3,667.62097	8.08573
Riverside (SC)	2018	All Other Buses	Aggregate	Aggregate	Natural Gas	0.00038	0.00300	0.01471	19.90588	0.04388
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Gasoline	0.00132	0.00200	0.00241	115,256.27415	254.09680
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Diesel	0.02260	0.00200	0.00241	1,829.44801	4.03325
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00153	355.50107	0.78375
Riverside (SC)	2018	LDA	Aggregate	Aggregate	Plug-in Hybrid	0.00081	0.00200	0.00130	1,278.26055	2.81808
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Gasoline	0.00283	0.00200	0.00292	13,266.13153	29.24684
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Diesel	0.21859	0.00200	0.00331	237.31051	0.52319
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	1,84707	0.00407
Riverside (SC)	2018	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.00098	0.00200	0.00130	0.11683	0.00026
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Gasoline	0.00147	0.00200	0.00280	43,076.65400	94.96784
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Diesel	0.01360	0.00200	0.00258	413.55819	0.91174
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	0.88216	0.00194
Riverside (SC)	2018	LDT2	Aggregate	Aggregate	Plug-in Hybrid	0.00097	0.00200	0.00130	1,421,387	0.03134
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Gasoline	0.00118	0.00200	0.02730	19,563.67052	43.19669
Riverside (SC)	2018	LHD1	Aggregate	Aggregate	Diesel	0.03632	0.00300	0.02730	40,407.33663	89.08300
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Gasoline	0.00095	0.00200	0.03185	3,059.30146	6.74461
Riverside (SC)	2018	LHD2	Aggregate	Aggregate	Diesel	0.03069	0.00300	0.03185	16,232.62109	35.78683
Riverside (SC)	2018	MCY	Aggregate	Aggregate	Gasoline	0.00165	0.00100	0.00420	1,076.90199	2.37116
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Gasoline	0.00149	0.00200	0.00290	40,476.68664	89.23589
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Diesel	0.00826	0.00200	0.00268	1,115.63550	2.45956
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00156	0.38233	0.00084
Riverside (SC)	2018	MDV	Aggregate	Aggregate	Plug-in Hybrid	0.00098	0.00200	0.00130	84.18554	0.18590
Riverside (SC)	2018	MH	Aggregate	Aggregate	Gasoline	0.00140	0.00300	0.01476	1,087.20390	2.39688
Riverside (SC)	2018	MH	Aggregate	Aggregate	Diesel	0.15376	0.00400	0.01474	3,510.97216	7.74037
Riverside (SC)	2018	Motor Coach	Aggregate	Aggregate	Diesel	0.12429	0.00300	0.02931	795.32390	1.75339
Riverside (SC)	2018	OBUS	Aggregate	Aggregate	Gasoline	0.00051	0.00300	0.01471	311.69684	0.68717
Riverside (SC)	2018	PTO	Aggregate	Aggregate	Diesel	0.13281	0.00000	0.00000	6,115.97151	13.48342
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Gasoline	0.00184	0.00200	0.01640	356.42108	0.78577
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Diesel	0.05934	0.00300	0.01640	945.31359	2.08406
Riverside (SC)	2018	SBUS	Aggregate	Aggregate	Natural Gas	0.00412	0.00300	0.01640	213.00417	0.46959
Riverside (SC)	2018	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.07676	0.00300	0.01472	25.24533	0.05566
Riverside (SC)	2018	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	0.06726	0.00300	0.01472	31.14663	0.06867
Riverside (SC)	2018	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	0.09312	0.00300	0.01472	106.16042	0.23404
Riverside (SC)	2018	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	0.07929	0.00300	0.01472	582.16724	1.28346
Riverside (SC)	2018	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.00030	0.00300	0.01472	0.11769	0.00026
Riverside (SC)	2018	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	0.22570	0.00300	0.01478	3,352.04412	7.39000
Riverside (SC)	2018	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	0.32289	0.00067
Riverside (SC)	2018	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	0.12445	0.00300	0.01478	1,873.07580	4.12943
Riverside (SC)	2018	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	0.44710	0.00099
Riverside (SC)	2018	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	0.21459	0.00300	0.01478	8,833.63299	19.47484
Riverside (SC)	2018	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	2.18474	0.00482
Riverside (SC)	2018	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.14524	0.00300	0.01478	1,428.99516	3.15040
Riverside (SC)	2018	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.00050	0.00300	0.01478	1.78328	0.00393
Riverside (SC)	2018	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	0.22281	0.00300	0.01478	13,989.25690	30.84106
Riverside (SC)	2018	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	1.51548	0.00334
Riverside (SC)	2018	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	0.10670	0.00300	0.01478	18,282.69411	40.96022
Riverside (SC)	2018	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	5.62333	0.01240
Riverside (SC)	2018	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	0.17594	0.00300	0.01478	19,892.73754	43.85601
Riverside (SC)	2018	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	4.50873	0.00994
Riverside (SC)	2018	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	0.13712	0.00300	0.01478	8,364.96623	18.44161
Riverside (SC)	2018	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	0.00061	0.00300	0.01478	18.59269	0.04099
Riverside (SC)	2018	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	0.24713	0.00300	0.01478	204.23591	0.45026
Riverside (SC)	2018	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01478	0.06002	0.00013
Riverside (SC)	2018	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	0.11753	0.00300	0.01478	3,209.64216	7.07696
Riverside (SC)	2018	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.00045	0.00300	0.01478	3.81427	0.00841
Riverside (SC)	2018	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.07676	0.00300	0.01472	14.56295	0.03211
Riverside (SC)	2018	T6 OOS Class 5	Aggregate	Aggregate	Diesel	0.06726	0.00300	0.01472	17.96716	0.03961
Riverside (SC)	2018	T6 OOS Class 6	Aggregate	Aggregate	Diesel	0.09312	0.00300	0.01472	61.23939	0.13501
Riverside (SC)	2018	T6 OOS Class 7	Aggregate	Aggregate	Diesel	0.08631	0.00300	0.01472	417.90005	0.92132
Riverside (SC)	2018	T6 Public Class 4	Aggregate	Aggregate	Diesel	0.03518	0.00300	0.01474	159.40479	0.33159
Riverside (SC)	2018	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01474	0.77807	0.00172
Riverside (SC)	2018	T6 Public Class 5	Aggregate	Aggregate	Diesel	0.02337	0.00300	0.01474	176.09874	0.38823
Riverside (SC)	2018	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	0.00056	0.00300	0.01474	13.20292	0.02911
Riverside (SC)	2018	T6 Public Class 6	Aggregate	Aggregate	Diesel	0.05434	0.00300	0.01474	449.66766	0.99113
Riverside (SC)	2018	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	0.00055	0.00300	0.01474	4.18087	0.00922
Riverside (SC)	2018	T6 Public Class 7	Aggregate	Aggregate	Diesel	0.06204	0.00300	0.01474	1,045.66159	2.30529
Riverside (SC)	2018	T6 Public Class 7	Aggregate	Aggregate	Natural Gas	0.00056	0.00300	0.01474	10.93128	0.02410
Riverside (SC)	2018	T6 Utility Class 5	Aggregate	Aggregate	Diesel	0.00938	0.00300	0.01474	190.50429	0.41999
Riverside (SC)	2018	T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01474	0.58427	0.00129
Riverside (SC)	2018	T6 Utility Class 6	Aggregate	Aggregate	Diesel	0.01462	0.00300	0.01474	42.69468	0.09413
Riverside (SC)	2018	T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01474	0.25353	0.00056
Riverside (SC)	2018	T6 Utility Class 7	Aggregate	Aggregate	Diesel	0.01355	0.00300	0.01474	57.26842	0.12626
Riverside (SC)	2018	T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.00031	0.00300	0.01474	0.15377	0.00100
Riverside (SC)	2018	T6 TIS	Aggregate	Aggregate	Gasoline	0.00114	0.00300	0.01476	936.90869	2.06573
Riverside (SC)	2018	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	0.08245	0.00900	0.02739	39,313.21186	86.67087
Riverside (SC)	2018	T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	0.00115	0.00900	0.02610	46.93602	0.10348
Riverside (SC)	2018	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	0.11328	0.00900	0.02731	58,831.22372	129.70075
Riverside (SC)	2018	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	0.09278	0.00900	0.02746	18,453.29435	40.86679
Riverside (SC)	2018	T7 POLA Class 8	Aggregate	Aggregate	Diesel	0.03538	0.00900	0.02938	16,661.24166	36.73178
Riverside (SC)	2018	T7 POLA Class 8	Aggregate	Aggregate	Natural Gas	0.00093	0.00900	0.02874	434.76769	0.95850
Riverside (SC)	2018	T7 Public Class 8	Aggregate	Aggregate	Diesel	0.07810	0.00900	0.03359	3,516.39435	7.75233
Riverside (SC)	2018	T7 Public Class 8	Aggregate	Aggregate	Natural Gas	0.00101	0.00900	0.02778	172.38140	0.38004
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Diesel	0.05953	0.00900	0.02804	12,012.61318	26.48330
Riverside (SC)	2018	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Natural Gas	0.00134	0.00900	0.02605	189.33978	0.41742
Riverside (SC)	2018	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	0.12425	0.00900	0.02947	11,133.68821	24.54560
Riverside (SC)	2018	T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	0.00133	0.00900	0.02670	154.82588	0.34133
Riverside (SC)	2018	T7 Single Other Class 8	Aggregate	Aggregate	Diesel	0.15395	0.00900	0.02968	12,075.63711	26.82224
Riverside (SC)	2018	T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	0.00129	0.00900	0.02699	129.43619	0.28536
Riverside (SC)	2018	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	0.01481	0.00900	0.07350	629.55046	1.38792
Riverside (SC)	2018	T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	0.00097	0.00900	0.07350	413.22874	0.91101
Riverside (SC)	2018	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	0.11237	0.00900	0.02891	40,520.08095	89.33156
Riverside (SC)	2018	T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	0.00112	0.00900	0.02933	168.78440	0.37211
Riverside (SC)	2018									

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTOXAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Diesel	204,99138	10,710,53449	10,710,53449	0.00000	1,824,42324	0.00000
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Natural Gas	55,29742	3,041,90675	3,041,90675	0.00000	492,14707	0.00000
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Gasoline	493,021,64251	21,095,278,65271	21,095,278,65271	0.00000	2,289,259,09141	0.00000
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Diesel	397,97632	14,228,46197	14,228,46197	0.00000	1,727,25232	0.00000
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Electricity	63,036,62903	2,559,309,41306	0.00000	2,559,309,41306	299,117,47421	988,104,66474
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Plug-in Hybrid	22,755,25751	986,967,89048	407,957,27118	579,030,61930	111,842,09628	174,884,43973
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Gasoline	34,608,88612	1,372,531,92255	1,372,531,92255	0.00000	154,704,15684	0.00000
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Diesel	0,33454	14,66320	14,66320	0.00000	1,57933	0.00000
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Electricity	786,18053	33,324,72115	0.00000	33,324,72115	3,784,76435	12,866,09280
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Plug-in Hybrid	610,73783	27,906,08275	11,405,27583	16,500,80693	3,002,07134	5,001,85728
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Gasoline	265,183,82571	11,274,853,97413	11,274,853,97413	0.00000	1,229,683,58929	0.00000
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Diesel	987,05002	42,589,22619	42,589,22619	0.00000	4,618,53117	0.00000
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Electricity	9,284,38842	268,729,51893	0.00000	268,729,51893	44,502,64571	103,751,73736
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Plug-in Hybrid	6,619,11394	292,267,33489	119,841,99117	172,425,34372	32,532,94500	52,077,65331
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Gasoline	13,385,54328	461,388,90924	461,388,90924	0.00000	199,124,05941	0.00000
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Diesel	10,210,98655	332,703,92358	332,703,92358	0.00000	128,441,36543	0.00000
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Electricity	9,066,73726	432,819,64045	0.00000	432,819,64045	127,036,89975	244,592,38625
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Gasoline	1,680,73164	55,921,52521	55,921,52521	0.00000	25,040,39716	0.00000
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Diesel	5,089,12577	158,981,53636	158,981,53636	0.00000	64,014,80069	0.00000
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Electricity	2,276,31919	104,811,60358	0.00000	104,811,60358	30,142,99422	59,253,30925
Riverside (SC)	2040	MCY	Aggregate	Aggregate	Gasoline	23,998,45692	131,623,17038	131,623,17038	0.00000	47,996,91383	0.00000
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Gasoline	165,115,67110	6,642,989,08703	6,642,989,08703	0.00000	752,743,64957	0.00000
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Diesel	1,915,93890	75,158,87749	75,158,87749	0.00000	8,650,01048	0.00000
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Electricity	8,810,39337	251,999,56506	0.00000	251,999,56506	42,962,21052	97,292,51779
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Plug-in Hybrid	4,282,45464	182,778,86133	75,143,42292	107,635,43841	21,048,26456	32,509,11045
Riverside (SC)	2040	MH	Aggregate	Aggregate	Gasoline	2,098,56109	19,579,08364	19,579,08364	0.00000	209,94005	0.00000
Riverside (SC)	2040	MH	Aggregate	Aggregate	Diesel	1,421,11401	11,691,91624	11,691,91624	0.00000	142,11140	0.00000
Riverside (SC)	2040	Motor Coach	Aggregate	Aggregate	Diesel	45,18956	5,675,30823	5,675,30823	0.00000	1,038,06294	0.00000
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Gasoline	229,04602	5,599,19259	5,599,19259	0.00000	4,415,04569	0.00000
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Electricity	83,87198	4,559,15362	0.00000	4,559,15362	1,678,11050	5,662,61654
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Diesel	0.00000	34,641,36997	34,641,36997	0.00000	0.00000	0.00000
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Electricity	0.00000	25,369,11422	0.00000	25,369,11422	0.00000	52,552,59625
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Gasoline	8,368,2808	10,340,89857	10,340,89857	0.00000	1,061,11239	0.00000
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Diesel	192,60215	3,359,02809	3,359,02809	0.00000	2,788,87910	0.00000
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Electricity	305,08131	8,462,37622	0.00000	8,462,37622	3,941,75526	11,511,83175
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Natural Gas	512,38014	10,481,50525	10,481,50525	0.00000	7,419,39474	0.00000
Riverside (SC)	2040	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	2,98000	205,99413	205,99413	0.00000	68,48043	0.00000
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	2,89217	0.00000	0.00000	222,80133	64,20380	277,51781
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	3,68634	283,87172	283,87172	0.00000	84,71198	0.00000
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	3,42737	304,35853	0.00000	304,35853	78,76097	379,10419
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	16,40918	732,11137	732,11137	0.00000	377,08301	0.00000
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	15,78798	894,95112	0.00000	894,95112	362,80697	1,062,63411
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	37,13329	7,489,51044	7,489,51044	0.00000	853,32309	0.00000
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	10,01852	2,146,76256	0.00000	2,146,76256	230,22564	2,673,97357
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.02464	4,95982	4,95982	0.00000	0.56615	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	389,32898	12,639,83930	12,639,83930	0.00000	5,555,72021	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	254,00000	9,391,11314	0.00000	9,391,11314	3,632,54473	11,023,65779
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	2,73826	90,25261	90,25261	0.00000	39,07493	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	372,64767	12,098,32454	12,098,32454	0.00000	5,317,68223	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	243,43006	8,991,83422	0.00000	8,991,83422	3,473,74701	11,156,97946
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	8,18099	83,44345	83,44345	0.00000	35,93316	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1,077,55539	34,977,55053	34,977,55053	0.00000	15,373,86141	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	704,29005	25,976,56837	0.00000	25,976,56837	10,050,21897	32,231,47054
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	7,49263	247,31034	247,31034	0.00000	106,91985	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	197,43389	9,867,57020	9,867,57020	0.00000	2,817,38158	0.00000
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	14,17440	4,101,17444	0.00000	4,101,17444	1,075,75893	5,088,93931
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	5,15306	255,44071	255,44071	0.00000	73,53410	0.00000
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1,355,19075	52,084,95400	52,084,95400	0.00000	15,666,00512	0.00000
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	890,58986	40,987,29605	0.00000	40,987,29605	10,295,21882	50,894,93729
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	9,37292	377,90553	377,90553	0.00000	108,35101	0.00000
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	3,497,91967	131,692,57095	131,692,57095	0.00000	39,742,35364	0.00000
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	2,246,93557	103,575,96058	0.00000	103,575,96058	25,974,57523	128,612,82705
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	22,81856	930,57776	930,57776	0.00000	263,78258	0.00000
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	2,403,55979	92,191,63750	92,191,63750	0.00000	27,785,15114	0.00000
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	1,560,60000	72,560,87200	0.00000	72,560,87200	18,187,07803	89,839,35285
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	16,20478	657,98280	657,98280	0.00000	187,32728	0.00000
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1,471,68195	55,911,05990	55,911,05990	0.00000	17,012,64338	0.00000
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	513,32423	30,960,98992	0.00000	30,960,98992	5,934,02809	38,444,99939
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	38,98295	1,419,56134	1,419,56134	0.00000	404,64289	0.00000
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	6,12341	662,90281	662,90281	0.00000	167,90281	0.00000
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	9,46551	573,10217	0.00000	573,10217	109,42133	711,63511
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.09701	4,72446	4,72446	0.00000	1,12145	0.00000
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	569,61698	31,487,04874	31,487,04874	0.00000	6,479,57628	0.00000
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	80,78903	6,132,29778	0.00000	6,132,29778	933,92123	7,614,25553
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	14,91008	784,82581	784,82581	0.00000	165,32050	0.00000
Riverside (SC)	2040	T6 OOS Class 4	Aggregate	Aggregate	Diesel	3,98019	247,35371	247,35371	0.00000	77,90648	0.00000
Riverside (SC)	2040	T6 OOS Class 5	Aggregate	Aggregate	Diesel	4,18013	339,32481	339,32481	0.00000	96,05941	0.00000
Riverside (SC)</											



Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM10_GRAMS	PM10_LBS
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Diesel	0.02126	0.01200	0.04213	897.55973	1.78015
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Natural Gas	0.00094	0.01200	0.04213	167.50694	0.36929
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Gasoline	0.00056	0.00800	0.00698	327.96614658	723.04218
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Diesel	0.00228	0.00800	0.00706	246.08681	0.54385
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00439	31,711.24145	69.91138
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Plug-in Hybrid	0.00023	0.00800	0.00392	11,998.98291	26.45325
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Gasoline	0.00067	0.00800	0.00829	23,288.44033	51.34226
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Diesel	0.00391	0.00800	0.00809	0.29337	0.00065
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00439	412.82703	0.91013
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.00020	0.00800	0.00393	339.18265	0.74777
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Gasoline	0.00058	0.00800	0.00815	188,573.44355	415.73362
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Diesel	0.00398	0.00800	0.00812	856.18764	1.88757
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.00439	3,329.49302	7.34028
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Plug-in Hybrid	0.00021	0.00800	0.00393	3,548.39225	7.82287
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Gasoline	0.00110	0.00800	0.07800	40,447.73178	89.17206
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Diesel	0.01433	0.01200	0.07800	34,711.26236	76.52530
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.03900	20,342.52893	44.84764
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Gasoline	0.00107	0.00800	0.09100	5,595.79843	12.33663
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Diesel	0.01711	0.01200	0.09100	13,095.56684	42.08855
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.04550	5,607.42240	12.36226
Riverside (SC)	2040	MCY	Aggregate	Aggregate	Gasoline	0.00216	0.00400	0.01200	2,390.57416	5.27032
Riverside (SC)	2040	MCY	Aggregate	Aggregate	Gasoline	0.00062	0.00800	0.00834	112,641.08629	248.33129
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Diesel	0.00180	0.00800	0.00841	1,368.50735	3.01704
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Electricity	0.00000	0.00800	0.04400	3,123.55018	6.88626
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Plug-in Hybrid	0.00022	0.00800	0.00393	2,221.58868	4.89777
Riverside (SC)	2040	MH	Aggregate	Aggregate	Gasoline	0.00096	0.01200	0.04221	1,080.27216	2.38159
Riverside (SC)	2040	MH	Aggregate	Aggregate	Diesel	0.07032	0.01600	0.04215	1,490.47643	3.28594
Riverside (SC)	2040	Motor Coach	Aggregate	Aggregate	Diesel	0.01894	0.01200	0.08456	655.52155	1.45158
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Gasoline	0.00062	0.04213	0.00624	2,908.19031	6.39344
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02106	150.74032	0.33233
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Diesel	0.00409	0.00000	0.00000	141.64783	0.31228
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Gasoline	0.00131	0.00800	0.04685	580.67777	1.28018
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Diesel	0.00985	0.01200	0.04685	271.85632	0.59956
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Electricity	0.00000	0.01117	0.02342	292.69915	0.64529
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Natural Gas	0.00448	0.01200	0.04685	663.77174	1.46337
Riverside (SC)	2040	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.00484	0.01200	0.04208	12.13828	0.02676
Riverside (SC)	2040	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02104	7.26142	0.01623
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	0.00483	0.01200	0.04208	16.72298	0.03687
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02104	10.05609	0.02217
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	0.00479	0.01200	0.04208	43.09930	0.09502
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02104	26.59582	0.05863
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	0.00501	0.01200	0.04208	442.56559	0.97569
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02104	70.92966	0.15637
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.00102	0.01200	0.04208	0.27329	0.00060
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	0.00509	0.01200	0.04227	770.26633	1.65406
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02114	311.15172	0.68525
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04227	4.99325	0.01101
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	0.00472	0.01200	0.04227	713.67225	1.57338
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02114	297.95437	0.65688
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.00106	0.01200	0.04227	4.61686	0.01018
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	0.00486	0.01200	0.04227	2,968.15187	6.55950
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02114	860.76232	1.89766
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04227	13.68214	0.03016
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	0.00687	0.01200	0.04227	693.28641	1.33002
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02114	135.89085	0.29608
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.00081	0.01200	0.04227	14.06939	0.03102
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	0.00487	0.01200	0.04225	3,079.17591	6.78843
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	1,357.75548	2.99334
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	0.00106	0.01200	0.04225	20.90107	0.04608
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	0.00467	0.01200	0.04225	7,759.98833	17.0768
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	3,431.08333	7.56425
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	0.00106	0.01200	0.04225	51.47193	0.11348
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	0.00479	0.01200	0.04225	5,443.14627	12.00009
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	2,586.70044	5.28983
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	0.00106	0.01200	0.04225	36.39054	0.08023
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	0.00618	0.01200	0.04225	3,379.11787	7.44969
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	1,025.62085	2.26111
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	0.00088	0.01200	0.04225	78.26711	0.17255
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	0.00496	0.01200	0.04225	39.36177	0.08678
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	18.98473	0.04185
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04225	0.26130	0.00058
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	0.00614	0.01200	0.04225	1,901.55836	4.19222
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02113	203.14004	0.44785
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.00088	0.01200	0.04225	43.29839	0.09530
Riverside (SC)	2040	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.00512	0.01200	0.04208	14,64470	0.03229
Riverside (SC)	2040	T6 OOS Class 5	Aggregate	Aggregate	Diesel	0.00495	0.01200	0.04208	20,02940	0.04416
Riverside (SC)	2040	T6 OOS Class 6	Aggregate	Aggregate	Diesel	0.00494	0.01200	0.04208	52.33584	0.11538
Riverside (SC)	2040	T6 OOS Class 7	Aggregate	Aggregate	Electricity	0.00509	0.01200	0.04208	381.45469	0.84606
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Diesel	0.00709	0.01200	0.04215	108.96426	0.24023
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	39.70426	0.08753
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	0.00104	0.01200	0.04215	17.26682	0.03807
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Diesel	0.00689	0.01200	0.04215	194.42308	0.42963
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	71.62176	0.15780
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	0.00094	0.01200	0.04215	37.43376	0.08253
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Diesel	0.00625	0.01200	0.04215	252.78474	0.55730
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	92.74148	0.20446
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	0.00102	0.01200	0.04215	44.16911	0.09738
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Diesel	0.00572	0.01200	0.04215	552.21341	1.21742
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	182.77429	0.40295
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Natural Gas	0.00103	0.01200	0.04215	97.29168	0.21449
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Diesel	0.00394	0.01200	0.04215	235.49430	0.51918
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	146.49656	0.32327
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04215	1.27925	0.00282
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Diesel	0.00389	0.01200	0.04215	44.47690	0.09805
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	27.65272	0.06096
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04215	0.24298	0.00054
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Diesel	0.00387	0.01200	0.04215	59.85443	0.13152
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02107	39.73669	0.08760
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.00105	0.01200	0.04215	0.32548	0.00072
Riverside (SC)	2040	T6T5	Aggregate	Aggregate	Gasoline	0.00102	0.01200	0.04221	1,780.19266	3.92466
Riverside (SC)	2040	T6T5	Aggregate	Aggregate	Electricity	0.00000	0.01200	0.02111	860.50624	1.89709
Riverside (SC)	2040	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	0.02930	0.03600	0.08116	68,649.49940	151.34636
Riverside (SC)	2040	T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	0.00000	0.03600	0.04072	9,807.15243	21.62109

Source: EMFAC2021 (v1.0.0) Emission Rates

Region Type: Sub-Area

Region: Riverside (SC)

Calendar Year: 2018, 2040

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM2.5_RUNEX	PM2.5_PMTW	PM2.5_PMBW	PM2.5_GRAMS	PM2.5_LBS
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Diesel	0.02934	0.00300	0.01174	407.93224	0.89934
Riverside (SC)	2040	All Other Buses	Aggregate	Aggregate	Natural Gas	0.00086	0.00300	0.01474	56.60543	0.12479
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Gasoline	0.00052	0.00200	0.00244	104.68385363	230.78858
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Diesel	0.00218	0.00200	0.00247	94.65735	0.20808
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	9,051.48639	19,955.13
Riverside (SC)	2040	LDA	Aggregate	Aggregate	Plug-in Hybrid	0.00022	0.00200	0.00137	3,541.05573	7,807.99
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Gasoline	0.00062	0.00200	0.00290	7,579.19059	16,709.27
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Diesel	0.00374	0.00200	0.00283	0.12576	0.00028
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	117.82968	0.25977
Riverside (SC)	2040	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.00019	0.00200	0.00137	99.53338	0.21948
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Gasoline	0.00053	0.00200	0.00285	60,685.68123	133,789.13
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Diesel	0.00381	0.00200	0.00284	368.39895	0.81218
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	950.33888	2.09514
Riverside (SC)	2040	LDT2	Aggregate	Aggregate	Plug-in Hybrid	0.00029	0.00200	0.00137	1,043.78491	2,301.15
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Gasoline	0.00101	0.00200	0.02730	14,075.77717	31,031.80
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Diesel	0.01371	0.00300	0.02730	14,642.57515	32,281.38
Riverside (SC)	2040	LHD1	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.01365	6,773.62931	14,933.31
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Gasoline	0.00098	0.00200	0.03185	1,947.71277	4,293.98
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Diesel	0.01637	0.00300	0.03185	8,143.28597	17,952.89
Riverside (SC)	2040	LHD2	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.01593	1,878.74853	4,141.93
Riverside (SC)	2040	MCY	Aggregate	Aggregate	Gasoline	0.00202	0.00100	0.00420	949.82711	2,094.01
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Gasoline	0.00057	0.00200	0.00292	36,458.67013	80,377.67
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Diesel	0.00172	0.00200	0.00294	500.74163	1,103.95
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Electricity	0.00000	0.00200	0.00154	891.64285	1,965.74
Riverside (SC)	2040	MDV	Aggregate	Aggregate	Plug-in Hybrid	0.00021	0.00200	0.00138	654.69809	1,443.36
Riverside (SC)	2040	MH	Aggregate	Aggregate	Gasoline	0.00088	0.00300	0.01477	365.32438	0.80540
Riverside (SC)	2040	MH	Aggregate	Aggregate	Diesel	0.06728	0.00400	0.01475	998.12395	2,200.49
Riverside (SC)	2040	Motor Coach	Aggregate	Aggregate	Diesel	0.01812	0.00300	0.02960	287.85238	0.63461
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Gasoline	0.00084	0.00300	0.01474	104.06826	0.22943
Riverside (SC)	2040	OBUS	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00737	47.28813	0.10425
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Diesel	0.00391	0.00000	0.00000	135.52021	0.29877
Riverside (SC)	2040	PTO	Aggregate	Aggregate	Electricity	0.00000	0.00000	0.00000	0.00000	0.00000
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Gasoline	0.00120	0.00200	0.01640	202.66985	0.44681
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Diesel	0.00942	0.00300	0.01640	114.08899	0.25152
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Electricity	0.00000	0.00279	0.00820	92.99580	0.20502
Riverside (SC)	2040	SBUS	Aggregate	Aggregate	Natural Gas	0.00412	0.00300	0.01640	246.49981	0.54344
Riverside (SC)	2040	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.00464	0.00300	0.01473	4,696.73	0.01016
Riverside (SC)	2040	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00736	2,391.4	0.00509
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	0.00462	0.00300	0.01473	6,344.25	0.01399
Riverside (SC)	2040	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00736	3,154.40	0.00695
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	0.00458	0.00300	0.01473	16,333.64	0.03601
Riverside (SC)	2040	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00736	8,342.59	0.01830
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	0.00479	0.00300	0.01473	168.68063	0.37188
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00736	22,249.26	0.04905
Riverside (SC)	2040	T6 CAIRP Class 7	Aggregate	Aggregate	Natural Gas	0.00094	0.00300	0.01473	0.09258	0.00020
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	0.00187	0.00300	0.01480	286.42325	0.63146
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00740	97.63497	0.21325
Riverside (SC)	2040	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01480	1,693.46	0.00373
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	0.00451	0.00300	0.01480	269.89364	0.59501
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00740	93.49383	0.20612
Riverside (SC)	2040	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01480	1,560.00	0.00345
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	0.00465	0.00300	0.01480	784.93068	1.73048
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00740	270.09492	0.59546
Riverside (SC)	2040	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01480	4,640.07	0.01023
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	0.00657	0.00300	0.01480	240.41679	0.53003
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00740	42,425.2	0.09401
Riverside (SC)	2040	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.00074	0.00300	0.01480	4,735.10	0.01044
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	0.00466	0.00300	0.01479	1,168.98006	2.57716
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	426.02965	0.93924
Riverside (SC)	2040	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01479	7,088.96	0.01563
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	0.00447	0.00300	0.01479	2,931.28663	6.46228
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	1,076.58798	2.37347
Riverside (SC)	2040	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01479	17.45983	0.03849
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	0.00458	0.00300	0.01479	2,062.35892	4.54743
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	752.02454	1.65750
Riverside (SC)	2040	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01479	12,423.88	0.02721
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	0.00592	0.00300	0.01479	1,325.41070	2.92203
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	321.81412	0.70948
Riverside (SC)	2040	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	0.00081	0.00300	0.01479	26.40319	0.05821
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	0.00447	0.00300	0.01479	14,929.62	0.03302
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	5,956.93	0.01313
Riverside (SC)	2040	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01479	0.08862	0.00020
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	0.00587	0.00300	0.01479	745.04829	1.64255
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	63.74025	0.14052
Riverside (SC)	2040	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01479	14,934.88	0.03318
Riverside (SC)	2040	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.00490	0.00300	0.01473	5,597.97	0.01234
Riverside (SC)	2040	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.00473	0.00300	0.01473	7,621.53	0.01680
Riverside (SC)	2040	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.00473	0.00300	0.01473	19,913.78	0.04390
Riverside (SC)	2040	T6 OOS Class 7	Aggregate	Aggregate	Diesel	0.00487	0.00300	0.01473	145.66659	0.32114
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Diesel	0.00678	0.00300	0.01475	43.65621	0.09625
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	12.45589	0.02746
Riverside (SC)	2040	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	0.00095	0.00300	0.01475	5,852.81	0.01290
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Diesel	0.00659	0.00300	0.01475	77.53702	0.17094
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	22.46769	0.04953
Riverside (SC)	2040	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	0.00086	0.00300	0.01475	12,650.36	0.02789
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Diesel	0.00598	0.00300	0.01475	99.31431	0.21895
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	29,049.56	0.06414
Riverside (SC)	2040	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	0.00091	0.00300	0.01475	14,964.42	0.03269
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Diesel	0.00548	0.00300	0.01475	214.23875	0.47232
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	57.39336	0.12641
Riverside (SC)	2040	T6 Public Class 7	Aggregate	Aggregate	Natural Gas	0.00094	0.00300	0.01475	32,967.84	0.07208
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Diesel	0.00377	0.00300	0.01475	87.25412	0.19236
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	49,515.46	0.10922
Riverside (SC)	2040	T6 Utility Class 5	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01475	0.43384	0.00096
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Diesel	0.00373	0.00300	0.01475	16.45777	0.03628
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	8.67512	0.01913
Riverside (SC)	2040	T6 Utility Class 6	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01475	0.06230	0.00018
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Diesel	0.00370	0.00300	0.01475	22.93365	0.04983
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00738	12.46607	0.02748
Riverside (SC)	2040	T6 Utility Class 7	Aggregate	Aggregate	Natural Gas	0.00097	0.00300	0.01475	0.11038	0.00024
Riverside (SC)	2040	T6T5	Aggregate	Aggregate	Gasoline	0.00094	0.00300	0.01477	603.18502	1.32980
Riverside (SC)	2040	T6T5	Aggregate	Aggregate	Electricity	0.00000	0.00300	0.00739	209.98069	0.45922
Riverside (SC)	2040	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	0.02803	0.00900	0.02841	30,672.67548	67.62173
Riverside (SC)	2040	T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	0.00000	0.00900	0.01425	2,972.29678	6.52880
Riverside (SC)	2040									

**NATURAL GAS - EXISTING (2018)**

Baseline Residential Usage

	Daily
Single Family	
19,172,064.00 Therms/yr	52,526.20 Therms/day
1,916,748,187.67 kBTU/yr	5,251,364.90 kBTU/day

Multi-Family

2,762,703.00 Therms/yr	7,569.05 Therms/day
276,204,271.40 kBTU/yr	756,724.03 kBTU/day

Baseline Commercial Usage

5,885,682.00 Therms/yr	16,125.16 Therms/day
588,427,532.20 kBTU/yr	1,612,130.23 kBTU/day

Baseline Industrial Usage

41,302.00 Therms/yr	113.16 Therms/day
4,129,212.88 kBTU/yr	11,312.91 kBTU/day

Conversion Units

1000 BTU/kBTU
1000 kBTU/MMBTU

99976.1 BTU/Therm
99.9761 kBTU/Therm
0.0999761 MMBTU/Therm

AP-42 Emission Factors

	lbs/10 <sup>6</sup> scf	lbs/MMBTU	lbs/kBTU
ROG	11	0.010784314	0.00001078
NOx - Residential	100	0.098039216	0.00009804
NOx - Commercial	94	0.092156863	0.00009216
NOx - Industrial	100	0.098039216	0.00009804
CO - Residential	84	0.082352941	0.00008235
CO - Commercial	40	0.039215686	0.00003922
CO - Industrial	84	0.082352941	0.00008235
SOx	0.6	0.000588235	0.0000059
PM10	7.6	0.00745098	0.00000745
PM2.5	7.6	0.00745098	0.00000745

	Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Residential	64.7931	589.0283	494.7838	3.5342	44.7662	44.7662
Commercial	17.3857	148.5689	63.2208	0.9483	12.0120	12.0120
Industrial	0.1220	1.1091	0.9317	0.0067	0.0843	0.0843
<b>Total</b>	<b>82.3008</b>	<b>738.7063</b>	<b>558.9362</b>	<b>4.4891</b>	<b>56.8624</b>	<b>56.8624</b>

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO <sub>x</sub> <sup>b</sup>		CO	
	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS) <sup>c</sup>	280	A	84	B
Uncontrolled (Post-NSPS) <sup>c</sup>	190	A	84	B
Controlled - Low NO <sub>x</sub> burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO <sub>x</sub> burners	50	D	84	B
Controlled - Low NO <sub>x</sub> burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from lb/10<sup>6</sup> scf to lb/MMBTU, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.  
<sup>b</sup> Expressed as NO<sub>x</sub>. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO<sub>x</sub> emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO<sub>x</sub> emission factor.  
<sup>c</sup> NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION<sup>a</sup>

Pollutant	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
CO <sub>2</sub> <sup>b</sup>	120,000	A
Lead	0.0005	D
N <sub>2</sub> O (Uncontrolled)	2.2	E
N <sub>2</sub> O (Controlled-low-NO <sub>x</sub> burner)	0.64	E
PM (Total) <sup>c</sup>	7.6	D
PM (Condensable) <sup>c</sup>	5.7	D
PM (Filterable) <sup>c</sup>	1.9	B
SO <sub>2</sub> <sup>d</sup>	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. To convert from lb/10<sup>6</sup> scf to lb/MMBTU, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.  
<sup>b</sup> Based on approximately 100% conversion of fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/10<sup>6</sup> scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO<sub>2</sub>, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10<sup>4</sup> lb/10<sup>6</sup> scf.  
<sup>c</sup> All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM<sub>10</sub>, PM<sub>2.5</sub> or PM<sub>1</sub> emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.  
<sup>d</sup> Based on 100% conversion of fuel sulfur to SO<sub>2</sub>. Assumes sulfur content is natural gas of 2,000 grains/10<sup>6</sup> scf. The SO<sub>2</sub> emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO<sub>2</sub> emission factor by the ratio of the site-specific sulfur content (grains/10<sup>6</sup> scf) to 2,000 grains/10<sup>6</sup> scf.

Source: <https://www3.epa.gov/ttnchie1/ap42/ch01/final/c01s04.pdf>

**NATURAL GAS - GPU 2040**

2040 Residential Usage	Daily
29,999,791.79 Therms/yr	82,191.21 Therms/day
2,999,262,183.91 kBTU/yr	8,217,156.67 kBTU/day
2040 Commercial Usage	
9,376,636.67 Therms/yr	25,689.42 Therms/day
937,439,565.30 kBTU/yr	2,568,327.58 kBTU/day
2040 Industrial Usage	
305,383.53 Therms/yr	836.67 Therms/day
30,531,054.19 kBTU/yr	83,646.72 kBTU/day

AP-42 Emission Factors

	lbs/10 <sup>6</sup> scf	lbs/MMBTU	lbs/kBTU
ROG	11	0.010784314	0.00001078
NOx - Residential	100	0.098039216	0.00009804
NOx - Commercial	94	0.092156863	0.00009216
NOx - Industrial	100	0.098039216	0.00009804
CO - Residential	84	0.082352941	0.00008235
CO - Commercial	40	0.039215686	0.00003922
CO - Industrial	84	0.082352941	0.00008235
SOx	0.6	0.000588235	0.0000059
PM10	7.6	0.00745098	0.0000745
PM2.5	7.6	0.00745098	0.0000745

Conversion Units

1000 BTU/kBTU
1000 kBTU/MMBTU
99976.1 BTU/Therm
99.9761 kBTU/Therm
0.0999761 MMBTU/Therm

	Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Residential	88.6164	805.6036	676.7070	4.8336	61.2259	61.2259
Commercial	27.6977	236.6890	100.7187	1.5108	19.1366	19.1366
Industrial	0.9021	8.2007	6.8886	0.0492	0.6233	0.6233
<b>Total</b>	<b>117.2161</b>	<b>1,050.4933</b>	<b>784.3143</b>	<b>6.3936</b>	<b>80.9857</b>	<b>80.9857</b>

**NATURAL GAS - ADOPTED GP 2040**

2040 Residential Usage	Daily
29,732,576.71 Therms/yr	81,459.11 Therms/day
2,972,547,062.86 kBTU/yr	8,143,964.56 kBTU/day
2040 Commercial Usage	
10,784,917.55 Therms/yr	29,547.72 Therms/day
1,078,233,995.36 kBTU/yr	2,954,065.74 kBTU/day
2040 Industrial Usage	
410,715.60 Therms/yr	1,125.25 Therms/day
41,061,743.79 kBTU/yr	112,497.93 kBTU/day

AP-42 Emission Factors

	lbs/10 <sup>6</sup> scf	lbs/MMBTU	lbs/kBTU
ROG	11	0.010784314	0.00001078
NOx - Residential	100	0.098039216	0.00009804
NOx - Commercial	94	0.092156863	0.00009216
NOx - Industrial	100	0.098039216	0.00009804
CO - Residential	84	0.082352941	0.00008235
CO - Commercial	40	0.039215686	0.00003922
CO - Industrial	84	0.082352941	0.00008235
SOx	0.6	0.000588235	0.0000059
PM10	7.6	0.00745098	0.0000745
PM2.5	7.6	0.00745098	0.0000745

Conversion Units

1000 BTU/kBTU
1000 kBTU/MMBTU
99976.1 BTU/Therm
99.9761 kBTU/Therm
0.0999761 MMBTU/Therm

	Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Residential	87.8271	798.4279	670.6794	4.7906	60.6805	60.6805
Commercial	31.8576	272.2374	115.8457	1.7377	22.0107	22.0107
Industrial	1.2132	11.0292	9.2645	0.0662	0.8382	0.8382
<b>Total</b>	<b>120.8979</b>	<b>1,081.6945</b>	<b>795.7897</b>	<b>6.5944</b>	<b>83.5294</b>	<b>83.5294</b>

## 2018 Area Sources

**AREA SOURCES - EXISTING (2018)**

Area Source	ROG	NOx	Emissions (lbs/day)			
			CO	SOx	PM10	PM2.5
Architectural Coatings	203.0987	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2,175.8228	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	141.8804	53.3725	4,598.7555	0.2412	25.0959	25.0959
<b>Total</b>	<b>2,520.8019</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>	<b>25.0959</b>	<b>25.0959</b>

## 2040 GPU Area Sources

**AREA SOURCES - GPU 2040**

Area Source	ROG	NOx	Emissions (lbs/day)			
			CO	SOx	PM10	PM2.5
Architectural Coatings	377.3241	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3,707.9666	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	190.7328	73.4258	6,362.8211	0.3376	35.4269	35.4269
<b>Total</b>	<b>4,276.0235</b>	<b>73.4258</b>	<b>6,362.8211</b>	<b>0.3376</b>	<b>35.4269</b>	<b>35.4269</b>

**AREA SOURCES - ADOPTED GP 2040**

Area Source	ROG	NOx	Emissions (lbs/day)			PM10	PM2.5
			CO	SOx			
Architectural Coatings	449.0149	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	4,329.1427	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	190.9342	73.4456	6,365.0222	0.3378	35.4347	35.4347	
<b>Total</b>	<b>4,969.0918</b>	<b>73.4456</b>	<b>6,365.0222</b>	<b>0.3378</b>	<b>35.4347</b>	<b>35.4347</b>	

**CalEEMod Output – Existing Year 2018 Land Uses**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**9504 Moreno Valley GPU - Existing Conditions 2018**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	12,000.29	1000sqft	275.49	12,000,290.00	0
General Light Industry	5,824.15	1000sqft	133.70	5,824,150.00	0
Apartments Mid Rise	9,406.00	Dwelling Unit	247.53	9,406,000.00	26901
Single Family Housing	45,922.00	Dwelling Unit	14,909.74	82,659,600.00	131337

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## 9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - Existing land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	3.62	0.00
tblEnergyUse	LightingElect	4.45	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	696.81	0.00
tblEnergyUse	T24E	2.89	0.00
tblEnergyUse	T24E	4.03	0.00
tblEnergyUse	T24E	1,269.07	0.00
tblEnergyUse	T24NG	10,983.45	0.00
tblEnergyUse	T24NG	16.76	0.00

## 9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

tblEnergyUse	T24NG	4.20	0.00
tblEnergyUse	T24NG	30,907.53	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	7,995.10	0.00
tblFireplaces	NumberGas	39,033.70	0.00
tblFireplaces	NumberNoFireplace	940.60	9,406.00
tblFireplaces	NumberNoFireplace	4,592.20	45,922.00
tblFireplaces	NumberWood	470.30	0.00
tblFireplaces	NumberWood	2,296.10	0.00
tblLandUse	LandUseSquareFeet	12,000,300.00	12,000,290.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00

## 9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

tblWoodstoves	NumberCatalytic	470.30	0.00
tblWoodstoves	NumberCatalytic	2,296.10	0.00
tblWoodstoves	NumberNoncatalytic	470.30	0.00
tblWoodstoves	NumberNoncatalytic	2,296.10	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

---



9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
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	0.0000	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
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
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	0.0000	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
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			8,836.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**3.2 Building Construction - 2021**

**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
Vendor					40.3035	0.0000	40.3035	9.8927	0.0000	9.8927			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>40.3035</b>	<b>0.0000</b>	<b>40.3035</b>	<b>9.8927</b>	<b>0.0000</b>	<b>9.8927</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					40.3035	0.0000	40.3035	9.8927	0.0000	9.8927			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>40.3035</b>	<b>0.0000</b>	<b>40.3035</b>	<b>9.8927</b>	<b>0.0000</b>	<b>9.8927</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
General Light Industry	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
General Office Building	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
Single Family Housing	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

	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					
Apartments Mid Rise	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
General Light Industry	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
General Office Building	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
Single Family Housing	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	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
General Light Industry	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
General Office Building	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
Single Family Housing	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
Unmitigated	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035

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	203.0987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,175.8228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	141.8804	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959		8,223.0026	8,223.0026	8.1560		8,426.9035
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>		<b>25.0959</b>	<b>25.0959</b>		<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	203.0987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,175.8228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	141.8804	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959		8,223.0026	8,223.0026	8.1560		8,426.9035
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>		<b>25.0959</b>	<b>25.0959</b>		<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Winter

**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**

---

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**9504 Moreno Valley GPU - Existing Conditions 2018**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	12,000.29	1000sqft	275.49	12,000,290.00	0
General Light Industry	5,824.15	1000sqft	133.70	5,824,150.00	0
Apartments Mid Rise	9,406.00	Dwelling Unit	247.53	9,406,000.00	26901
Single Family Housing	45,922.00	Dwelling Unit	14,909.74	82,659,600.00	131337

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - Existing land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	3.62	0.00
tblEnergyUse	LightingElect	4.45	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	696.81	0.00
tblEnergyUse	T24E	2.89	0.00
tblEnergyUse	T24E	4.03	0.00
tblEnergyUse	T24E	1,269.07	0.00
tblEnergyUse	T24NG	10,983.45	0.00
tblEnergyUse	T24NG	16.76	0.00

## 9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

tblEnergyUse	T24NG	4.20	0.00
tblEnergyUse	T24NG	30,907.53	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	7,995.10	0.00
tblFireplaces	NumberGas	39,033.70	0.00
tblFireplaces	NumberNoFireplace	940.60	9,406.00
tblFireplaces	NumberNoFireplace	4,592.20	45,922.00
tblFireplaces	NumberWood	470.30	0.00
tblFireplaces	NumberWood	2,296.10	0.00
tblLandUse	LandUseSquareFeet	12,000,300.00	12,000,290.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00

## 9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

tblWoodstoves	NumberCatalytic	470.30	0.00
tblWoodstoves	NumberCatalytic	2,296.10	0.00
tblWoodstoves	NumberNoncatalytic	470.30	0.00
tblWoodstoves	NumberNoncatalytic	2,296.10	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

**2.0 Emissions Summary**

---



9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
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	0.0000	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
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
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	0.0000	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
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			8,836.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**3.2 Building Construction - 2021**

**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
Vendor					40.3035	0.0000	40.3035	9.8927	0.0000	9.8927			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>40.3035</b>	<b>0.0000</b>	<b>40.3035</b>	<b>9.8927</b>	<b>0.0000</b>	<b>9.8927</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					40.3035	0.0000	40.3035	9.8927	0.0000	9.8927			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>40.3035</b>	<b>0.0000</b>	<b>40.3035</b>	<b>9.8927</b>	<b>0.0000</b>	<b>9.8927</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
General Light Industry	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
General Office Building	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311
Single Family Housing	0.527920	0.040740	0.182967	0.130733	0.020108	0.005812	0.016781	0.065303	0.001324	0.001284	0.004728	0.000989	0.001311

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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					
Apartments Mid Rise	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
General Light Industry	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
General Office Building	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
Single Family Housing	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	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
General Light Industry	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
General Office Building	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
Single Family Housing	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035
Unmitigated	2,520.8018	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959	0.0000	8,223.0026	8,223.0026	8.1560	0.0000	8,426.9035

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	203.0987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,175.8228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	141.8804	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959		8,223.0026	8,223.0026	8.1560		8,426.9035
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>		<b>25.0959</b>	<b>25.0959</b>		<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	203.0987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,175.8228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	141.8804	53.3725	4,598.7555	0.2412		25.0959	25.0959		25.0959	25.0959		8,223.0026	8,223.0026	8.1560		8,426.9035
<b>Total</b>	<b>2,520.8018</b>	<b>53.3725</b>	<b>4,598.7555</b>	<b>0.2412</b>		<b>25.0959</b>	<b>25.0959</b>		<b>25.0959</b>	<b>25.0959</b>	<b>0.0000</b>	<b>8,223.0026</b>	<b>8,223.0026</b>	<b>8.1560</b>	<b>0.0000</b>	<b>8,426.9035</b>

**7.0 Water Detail**

---

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

---

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

---

9504 Moreno Valley GPU - Existing Conditions 2018 - Riverside-South Coast County, Summer

**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**

---

**CalEEMod Output – 2006 General Plan Year 2040**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**9504 Moreno Valley GPU - Adopted General Plan 2040**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	18,238.37	1000sqft	418.70	18,238,370.00	0
General Light Industry	71,645.20	1000sqft	1,644.75	71,645,200.00	0
Apartments Mid Rise	13,155.00	Dwelling Unit	346.18	13,155,000.00	37623
Single Family Housing	64,225.00	Dwelling Unit	20,852.27	115,605,000.00	183684

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - Adopted General Plan land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	11,181.75	0.00
tblFireplaces	NumberGas	54,591.25	0.00
tblFireplaces	NumberNoFireplace	1,315.50	13,155.00
tblFireplaces	NumberNoFireplace	6,422.50	64,225.00
tblFireplaces	NumberWood	657.75	0.00
tblFireplaces	NumberWood	3,211.25	0.00
tblLandUse	LandUseSquareFeet	18,238,400.00	18,238,370.00
tblVehicleTrips	HO_TL	8.70	0.00

## 9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	657.75	0.00
tblWoodstoves	NumberCatalytic	3,211.25	0.00
tblWoodstoves	NumberNoncatalytic	657.75	0.00
tblWoodstoves	NumberNoncatalytic	3,211.25	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

**2.0 Emissions Summary**



9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**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	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Energy	148.9043	1,312.8198	837.4811	8.1221		102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
Mobile	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
<b>Total</b>	<b>5,117.9961</b>	<b>1,386.2654</b>	<b>7,202.5033</b>	<b>8.4598</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>1,635,924.8687</b>	<b>1,635,924.8687</b>	<b>42.1266</b>	<b>29.7809</b>	<b>1,645,852.7270</b>

**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	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Energy	148.9043	1,312.8198	837.4811	8.1221		102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
Mobile	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
<b>Total</b>	<b>5,117.9961</b>	<b>1,386.2654</b>	<b>7,202.5033</b>	<b>8.4598</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>1,635,924.8687</b>	<b>1,635,924.8687</b>	<b>42.1266</b>	<b>29.7809</b>	<b>1,645,852.7270</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			23,004.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**3.2 Building Construction - 2021**

**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
Vendor					104.9278	0.0000	104.9278	25.7550	0.0000	25.7550			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>104.9278</b>	<b>0.0000</b>	<b>104.9278</b>	<b>25.7550</b>	<b>0.0000</b>	<b>25.7550</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					104.9278	0.0000	104.9278	25.7550	0.0000	25.7550			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>104.9278</b>	<b>0.0000</b>	<b>104.9278</b>	<b>25.7550</b>	<b>0.0000</b>	<b>25.7550</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

	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	148.9043	1,312.8198	837.4811	8.1221			102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
NaturalGas Unmitigated	148.9043	1,312.8198	837.4811	8.1221			102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783

**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					
Apartments Mid Rise	459978	4.9605	42.3901	18.0383	0.2706		3.4273	3.4273		3.4273	3.4273		54,115.0271	54,115.0271	1.0372	0.9921	54,436.6056
General Light Industry	6.65221e+006	71.7395	652.1772	547.8289	3.9131		49.5655	49.5655		49.5655	49.5655		782,612.6762	782,612.6762	15.0001	14.3479	787,263.3521
General Office Building	209866	2.2633	20.5751	17.2831	0.1235		1.5637	1.5637		1.5637	1.5637		24,690.1383	24,690.1383	0.4732	0.4527	24,836.8594
Single Family Housing	6.48544e+006	69.9410	597.6774	254.3308	3.8150		48.3229	48.3229		48.3229	48.3229		762,992.3790	762,992.3790	14.6240	13.9882	767,526.4612
<b>Total</b>		<b>148.9043</b>	<b>1,312.8198</b>	<b>837.4811</b>	<b>8.1221</b>		<b>102.8793</b>	<b>102.8793</b>		<b>102.8793</b>	<b>102.8793</b>		<b>1,624,410.2205</b>	<b>1,624,410.2205</b>	<b>31.1345</b>	<b>29.7809</b>	<b>1,634,063.2783</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	459.978	4.9605	42.3901	18.0383	0.2706		3.4273	3.4273		3.4273	3.4273		54,115.0271	54,115.0271	1.0372	0.9921	54,436.6056
General Light Industry	6652.21	71.7395	652.1772	547.8289	3.9131		49.5655	49.5655		49.5655	49.5655		782,612.6762	782,612.6762	15.0001	14.3479	787,263.3521
General Office Building	209.866	2.2633	20.5751	17.2831	0.1235		1.5637	1.5637		1.5637	1.5637		24,690.1383	24,690.1383	0.4732	0.4527	24,836.8594
Single Family Housing	6485.44	69.9410	597.6774	254.3308	3.8150		48.3229	48.3229		48.3229	48.3229		762,992.3790	762,992.3790	14.6240	13.9882	767,526.4612
<b>Total</b>		<b>148.9043</b>	<b>1,312.8198</b>	<b>837.4811</b>	<b>8.1221</b>		<b>102.8793</b>	<b>102.8793</b>		<b>102.8793</b>	<b>102.8793</b>		<b>1,624,410.2205</b>	<b>1,624,410.2205</b>	<b>31.1345</b>	<b>29.7809</b>	<b>1,634,063.2783</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

	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	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Unmitigated	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488

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	449.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4,329.1427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.9342	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347		11,514.6482	11,514.6482	10.9920		11,789.4488
<b>Total</b>	<b>4,969.0918</b>	<b>73.4456</b>	<b>6,365.0222</b>	<b>0.3378</b>		<b>35.4347</b>	<b>35.4347</b>		<b>35.4347</b>	<b>35.4347</b>	<b>0.0000</b>	<b>11,514.6482</b>	<b>11,514.6482</b>	<b>10.9920</b>	<b>0.0000</b>	<b>11,789.4488</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	449.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4,329.1427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.9342	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347		11,514.6482	11,514.6482	10.9920		11,789.4488
<b>Total</b>	<b>4,969.0918</b>	<b>73.4456</b>	<b>6,365.0222</b>	<b>0.3378</b>		<b>35.4347</b>	<b>35.4347</b>		<b>35.4347</b>	<b>35.4347</b>	<b>0.0000</b>	<b>11,514.6482</b>	<b>11,514.6482</b>	<b>10.9920</b>	<b>0.0000</b>	<b>11,789.4488</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Winter

**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**

---

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**9504 Moreno Valley GPU - Adopted General Plan 2040**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	18,238.37	1000sqft	418.70	18,238,370.00	0
General Light Industry	71,645.20	1000sqft	1,644.75	71,645,200.00	0
Apartments Mid Rise	13,155.00	Dwelling Unit	346.18	13,155,000.00	37623
Single Family Housing	64,225.00	Dwelling Unit	20,852.27	115,605,000.00	183684

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## 9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - Adopted General Plan land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	11,181.75	0.00
tblFireplaces	NumberGas	54,591.25	0.00
tblFireplaces	NumberNoFireplace	1,315.50	13,155.00
tblFireplaces	NumberNoFireplace	6,422.50	64,225.00
tblFireplaces	NumberWood	657.75	0.00
tblFireplaces	NumberWood	3,211.25	0.00
tblLandUse	LandUseSquareFeet	18,238,400.00	18,238,370.00
tblVehicleTrips	HO_TL	8.70	0.00

## 9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	657.75	0.00
tblWoodstoves	NumberCatalytic	3,211.25	0.00
tblWoodstoves	NumberNoncatalytic	657.75	0.00
tblWoodstoves	NumberNoncatalytic	3,211.25	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

---



9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Energy	148.9043	1,312.8198	837.4811	8.1221		102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
Mobile	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
<b>Total</b>	<b>5,117.9961</b>	<b>1,386.2654</b>	<b>7,202.5033</b>	<b>8.4598</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>1,635,924.8687</b>	<b>1,635,924.8687</b>	<b>42.1266</b>	<b>29.7809</b>	<b>1,645,852.7270</b>

**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	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Energy	148.9043	1,312.8198	837.4811	8.1221		102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
Mobile	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
<b>Total</b>	<b>5,117.9961</b>	<b>1,386.2654</b>	<b>7,202.5033</b>	<b>8.4598</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>138.3140</b>	<b>138.3140</b>	<b>0.0000</b>	<b>1,635,924.8687</b>	<b>1,635,924.8687</b>	<b>42.1266</b>	<b>29.7809</b>	<b>1,645,852.7270</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			23,004.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**3.2 Building Construction - 2021**

**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
Vendor					104.9278	0.0000	104.9278	25.7550	0.0000	25.7550			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>104.9278</b>	<b>0.0000</b>	<b>104.9278</b>	<b>25.7550</b>	<b>0.0000</b>	<b>25.7550</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					104.9278	0.0000	104.9278	25.7550	0.0000	25.7550			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>104.9278</b>	<b>0.0000</b>	<b>104.9278</b>	<b>25.7550</b>	<b>0.0000</b>	<b>25.7550</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	148.9043	1,312.8198	837.4811	8.1221			102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783
NaturalGas Unmitigated	148.9043	1,312.8198	837.4811	8.1221			102.8793	102.8793		102.8793	102.8793		1,624,410.2205	1,624,410.2205	31.1345	29.7809	1,634,063.2783

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					
Apartments Mid Rise	459978	4.9605	42.3901	18.0383	0.2706		3.4273	3.4273		3.4273	3.4273		54,115.0271	54,115.0271	1.0372	0.9921	54,436.6056
General Light Industry	6.65221e+006	71.7395	652.1772	547.8289	3.9131		49.5655	49.5655		49.5655	49.5655		782,612.6762	782,612.6762	15.0001	14.3479	787,263.3521
General Office Building	209866	2.2633	20.5751	17.2831	0.1235		1.5637	1.5637		1.5637	1.5637		24,690.1383	24,690.1383	0.4732	0.4527	24,836.8594
Single Family Housing	6.48544e+006	69.9410	597.6774	254.3308	3.8150		48.3229	48.3229		48.3229	48.3229		762,992.3790	762,992.3790	14.6240	13.9882	767,526.4612
<b>Total</b>		<b>148.9043</b>	<b>1,312.8198</b>	<b>837.4811</b>	<b>8.1221</b>		<b>102.8793</b>	<b>102.8793</b>		<b>102.8793</b>	<b>102.8793</b>		<b>1,624,410.2205</b>	<b>1,624,410.2205</b>	<b>31.1345</b>	<b>29.7809</b>	<b>1,634,063.2783</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	459.978	4.9605	42.3901	18.0383	0.2706		3.4273	3.4273		3.4273	3.4273		54,115.0271	54,115.0271	1.0372	0.9921	54,436.6056
General Light Industry	6652.21	71.7395	652.1772	547.8289	3.9131		49.5655	49.5655		49.5655	49.5655		782,612.6762	782,612.6762	15.0001	14.3479	787,263.3521
General Office Building	209.866	2.2633	20.5751	17.2831	0.1235		1.5637	1.5637		1.5637	1.5637		24,690.1383	24,690.1383	0.4732	0.4527	24,836.8594
Single Family Housing	6485.44	69.9410	597.6774	254.3308	3.8150		48.3229	48.3229		48.3229	48.3229		762,992.3790	762,992.3790	14.6240	13.9882	767,526.4612
<b>Total</b>		<b>148.9043</b>	<b>1,312.8198</b>	<b>837.4811</b>	<b>8.1221</b>		<b>102.8793</b>	<b>102.8793</b>		<b>102.8793</b>	<b>102.8793</b>		<b>1,624,410.2205</b>	<b>1,624,410.2205</b>	<b>31.1345</b>	<b>29.7809</b>	<b>1,634,063.2783</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488
Unmitigated	4,969.0918	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347	0.0000	11,514.6482	11,514.6482	10.9920	0.0000	11,789.4488

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	449.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4,329.1427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.9342	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347		11,514.6482	11,514.6482	10.9920		11,789.4488
<b>Total</b>	<b>4,969.0918</b>	<b>73.4456</b>	<b>6,365.0222</b>	<b>0.3378</b>		<b>35.4347</b>	<b>35.4347</b>		<b>35.4347</b>	<b>35.4347</b>	<b>0.0000</b>	<b>11,514.6482</b>	<b>11,514.6482</b>	<b>10.9920</b>	<b>0.0000</b>	<b>11,789.4488</b>

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	449.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4,329.1427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.9342	73.4456	6,365.0222	0.3378		35.4347	35.4347		35.4347	35.4347		11,514.6482	11,514.6482	10.9920		11,789.4488
<b>Total</b>	<b>4,969.0918</b>	<b>73.4456</b>	<b>6,365.0222</b>	<b>0.3378</b>		<b>35.4347</b>	<b>35.4347</b>		<b>35.4347</b>	<b>35.4347</b>	<b>0.0000</b>	<b>11,514.6482</b>	<b>11,514.6482</b>	<b>10.9920</b>	<b>0.0000</b>	<b>11,789.4488</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - Adopted General Plan 2040 - Riverside-South Coast County, Summer

**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**

---

## **CalEEMod Output – 2021 GPU Year 2040**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**9504 Moreno Valley GPU - GPU 2040**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16,427.57	1000sqft	377.13	16,427,570.00	0
General Light Industry	51,759.47	1000sqft	1,188.23	51,759,470.00	0
Apartments Mid Rise	25,250.00	Dwelling Unit	664.47	25,250,000.00	72215
Single Family Housing	52,130.00	Dwelling Unit	16,925.32	93,834,000.00	149092

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - GPU 2040 land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	21,462.50	0.00
tblFireplaces	NumberGas	44,310.50	0.00
tblFireplaces	NumberNoFireplace	2,525.00	25,250.00
tblFireplaces	NumberNoFireplace	5,213.00	52,130.00
tblFireplaces	NumberWood	1,262.50	0.00
tblFireplaces	NumberWood	2,606.50	0.00
tblLandUse	LandUseSquareFeet	16,427,600.00	16,427,570.00
tblLandUse	LandUseSquareFeet	51,759,500.00	51,759,470.00

## 9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	1,262.50	0.00
tblWoodstoves	NumberCatalytic	2,606.50	0.00
tblWoodstoves	NumberNoncatalytic	1,262.50	0.00
tblWoodstoves	NumberNoncatalytic	2,606.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00





9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**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	4,276.0234	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.8999	11,509.8999	10.9798	0.0000	11,784.3946
Energy	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
Mobile	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
<b>Total</b>	<b>4,396.1805</b>	<b>1,129.6040</b>	<b>7,015.2204</b>	<b>6.8917</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>1,322,314.0794</b>	<b>1,322,314.0794</b>	<b>36.1035</b>	<b>24.0314</b>	<b>1,330,378.0279</b>

**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	4,276.0234	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.8999	11,509.8999	10.9798	0.0000	11,784.3946
Energy	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
Mobile	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
<b>Total</b>	<b>4,396.1805</b>	<b>1,129.6040</b>	<b>7,015.2204</b>	<b>6.8917</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>1,322,314.0794</b>	<b>1,322,314.0794</b>	<b>36.1035</b>	<b>24.0314</b>	<b>1,330,378.0279</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			19,448.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**3.2 Building Construction - 2021**

**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
Vendor					88.7079	0.0000	88.7079	21.7738	0.0000	21.7738			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>88.7079</b>	<b>0.0000</b>	<b>88.7079</b>	<b>21.7738</b>	<b>0.0000</b>	<b>21.7738</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					88.7079	0.0000	88.7079	21.7738	0.0000	21.7738			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>88.7079</b>	<b>0.0000</b>	<b>88.7079</b>	<b>21.7738</b>	<b>0.0000</b>	<b>21.7738</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

	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	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
NaturalGas Unmitigated	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333

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					
Apartments Mid Rise	882892	9.5214	81.3645	34.6232	0.5194		6.5784	6.5784		6.5784	6.5784		103,869.5882	103,869.5882	1.9908	1.9043	104,486.8333
General Light Industry	4.80583e+006	51.8276	471.1599	395.7744	2.8270		35.8082	35.8082		35.8082	35.8082		565,391.9221	565,391.9221	10.8367	10.3655	568,751.7636
General Office Building	189030	2.0386	18.5323	15.5671	0.1112		1.4085	1.4085		1.4085	1.4085		22,238.7733	22,238.7733	0.4262	0.4077	22,370.9272
Single Family Housing	5.26408e+006	56.7695	485.1214	206.4346	3.0965		39.2226	39.2226		39.2226	39.2226		619,303.8959	619,303.8959	11.8700	11.3539	622,984.1093
<b>Total</b>		<b>120.1570</b>	<b>1,056.1782</b>	<b>652.3993</b>	<b>6.5540</b>		<b>83.0176</b>	<b>83.0176</b>		<b>83.0176</b>	<b>83.0176</b>		<b>1,310,804.1795</b>	<b>1,310,804.1795</b>	<b>25.1237</b>	<b>24.0314</b>	<b>1,318,593.6333</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	882.891	9.5214	81.3645	34.6232	0.5194		6.5784	6.5784		6.5784	6.5784		103,869.5882	103,869.5882	1.9908	1.9043	104,486.8333
General Light Industry	4805.83	51.8276	471.1599	395.7744	2.8270		35.8082	35.8082		35.8082	35.8082		565,391.9221	565,391.9221	10.8367	10.3655	568,751.7636
General Office Building	189.03	2.0386	18.5323	15.5671	0.1112		1.4085	1.4085		1.4085	1.4085		22,238.7733	22,238.7733	0.4262	0.4077	22,370.9272
Single Family Housing	5264.08	56.7695	485.1214	206.4346	3.0965		39.2226	39.2226		39.2226	39.2226		619,303.8959	619,303.8959	11.8700	11.3539	622,984.1093
<b>Total</b>		<b>120.1570</b>	<b>1,056.1782</b>	<b>652.3993</b>	<b>6.5540</b>		<b>83.0176</b>	<b>83.0176</b>		<b>83.0176</b>	<b>83.0176</b>		<b>1,310,804.1795</b>	<b>1,310,804.1795</b>	<b>25.1237</b>	<b>24.0314</b>	<b>1,318,593.6333</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

	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	4,276.023 4	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.89 99	11,509.89 99	10.9798	0.0000	11,784.39 46
Unmitigated	4,276.023 4	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.89 99	11,509.89 99	10.9798	0.0000	11,784.39 46

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	377.3241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,707.966 6					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.7328	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269		11,509.89 99	11,509.89 99	10.9798		11,784.39 46
<b>Total</b>	<b>4,276.023 4</b>	<b>73.4258</b>	<b>6,362.821 1</b>	<b>0.3376</b>		<b>35.4269</b>	<b>35.4269</b>		<b>35.4269</b>	<b>35.4269</b>	<b>0.0000</b>	<b>11,509.89 99</b>	<b>11,509.89 99</b>	<b>10.9798</b>	<b>0.0000</b>	<b>11,784.39 46</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	377.3241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,707.9666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.7328	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269		11,509.8999	11,509.8999	10.9798		11,784.3946
<b>Total</b>	<b>4,276.0234</b>	<b>73.4258</b>	<b>6,362.8211</b>	<b>0.3376</b>		<b>35.4269</b>	<b>35.4269</b>		<b>35.4269</b>	<b>35.4269</b>	<b>0.0000</b>	<b>11,509.8999</b>	<b>11,509.8999</b>	<b>10.9798</b>	<b>0.0000</b>	<b>11,784.3946</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Winter

**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**

---

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**9504 Moreno Valley GPU - GPU 2040**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16,427.57	1000sqft	377.13	16,427,570.00	0
General Light Industry	51,759.47	1000sqft	1,188.23	51,759,470.00	0
Apartments Mid Rise	25,250.00	Dwelling Unit	664.47	25,250,000.00	72215
Single Family Housing	52,130.00	Dwelling Unit	16,925.32	93,834,000.00	149092

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - GPU 2040 land uses

Construction Phase - Construction emissions analyzed separately

Off-road Equipment -

Vehicle Trips - Mobile emissions calculated separately

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood stoves or fireplaces modeled

Energy Use - Energy calculated separately

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	1.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	21,462.50	0.00
tblFireplaces	NumberGas	44,310.50	0.00
tblFireplaces	NumberNoFireplace	2,525.00	25,250.00
tblFireplaces	NumberNoFireplace	5,213.00	52,130.00
tblFireplaces	NumberWood	1,262.50	0.00
tblFireplaces	NumberWood	2,606.50	0.00
tblLandUse	LandUseSquareFeet	16,427,600.00	16,427,570.00
tblLandUse	LandUseSquareFeet	51,759,500.00	51,759,470.00

## 9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	1,262.50	0.00
tblWoodstoves	NumberCatalytic	2,606.50	0.00
tblWoodstoves	NumberNoncatalytic	1,262.50	0.00
tblWoodstoves	NumberNoncatalytic	2,606.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00





9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4,276.0234	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.8999	11,509.8999	10.9798	0.0000	11,784.3946
Energy	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
Mobile	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
<b>Total</b>	<b>4,396.1805</b>	<b>1,129.6040</b>	<b>7,015.2204</b>	<b>6.8917</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>1,322,314.0794</b>	<b>1,322,314.0794</b>	<b>36.1035</b>	<b>24.0314</b>	<b>1,330,378.0279</b>

**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	4,276.0234	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.8999	11,509.8999	10.9798	0.0000	11,784.3946
Energy	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
Mobile	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
<b>Total</b>	<b>4,396.1805</b>	<b>1,129.6040</b>	<b>7,015.2204</b>	<b>6.8917</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>118.4445</b>	<b>118.4445</b>	<b>0.0000</b>	<b>1,322,314.0794</b>	<b>1,322,314.0794</b>	<b>36.1035</b>	<b>24.0314</b>	<b>1,330,378.0279</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

#### 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
Building Construction			19,448.00	0.00	14.70	6.90				

### 3.1 Mitigation Measures Construction

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**3.2 Building Construction - 2021**

**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
Vendor					88.7079	0.0000	88.7079	21.7738	0.0000	21.7738			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>88.7079</b>	<b>0.0000</b>	<b>88.7079</b>	<b>21.7738</b>	<b>0.0000</b>	<b>21.7738</b>			<b>0.0000</b>			<b>0.0000</b>

**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
Vendor					88.7079	0.0000	88.7079	21.7738	0.0000	21.7738			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>					<b>88.7079</b>	<b>0.0000</b>	<b>88.7079</b>	<b>21.7738</b>	<b>0.0000</b>	<b>21.7738</b>			<b>0.0000</b>			<b>0.0000</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**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	0.0000	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
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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Single Family Housing	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333
NaturalGas Unmitigated	120.1571	1,056.1781	652.3993	6.5540		83.0176	83.0176		83.0176	83.0176		1,310,804.1795	1,310,804.1795	25.1238	24.0314	1,318,593.6333

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					
Apartments Mid Rise	882892	9.5214	81.3645	34.6232	0.5194		6.5784	6.5784		6.5784	6.5784		103,869.5882	103,869.5882	1.9908	1.9043	104,486.8333
General Light Industry	4.80583e+006	51.8276	471.1599	395.7744	2.8270		35.8082	35.8082		35.8082	35.8082		565,391.9221	565,391.9221	10.8367	10.3655	568,751.7636
General Office Building	189030	2.0386	18.5323	15.5671	0.1112		1.4085	1.4085		1.4085	1.4085		22,238.7733	22,238.7733	0.4262	0.4077	22,370.9272
Single Family Housing	5.26408e+006	56.7695	485.1214	206.4346	3.0965		39.2226	39.2226		39.2226	39.2226		619,303.8959	619,303.8959	11.8700	11.3539	622,984.1093
<b>Total</b>		<b>120.1570</b>	<b>1,056.1782</b>	<b>652.3993</b>	<b>6.5540</b>		<b>83.0176</b>	<b>83.0176</b>		<b>83.0176</b>	<b>83.0176</b>		<b>1,310,804.1795</b>	<b>1,310,804.1795</b>	<b>25.1237</b>	<b>24.0314</b>	<b>1,318,593.6333</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**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					
Apartments Mid Rise	882.891	9.5214	81.3645	34.6232	0.5194		6.5784	6.5784		6.5784	6.5784		103,869.5882	103,869.5882	1.9908	1.9043	104,486.8333
General Light Industry	4805.83	51.8276	471.1599	395.7744	2.8270		35.8082	35.8082		35.8082	35.8082		565,391.9221	565,391.9221	10.8367	10.3655	568,751.7636
General Office Building	189.03	2.0386	18.5323	15.5671	0.1112		1.4085	1.4085		1.4085	1.4085		22,238.7733	22,238.7733	0.4262	0.4077	22,370.9272
Single Family Housing	5264.08	56.7695	485.1214	206.4346	3.0965		39.2226	39.2226		39.2226	39.2226		619,303.8959	619,303.8959	11.8700	11.3539	622,984.1093
<b>Total</b>		<b>120.1570</b>	<b>1,056.1782</b>	<b>652.3993</b>	<b>6.5540</b>		<b>83.0176</b>	<b>83.0176</b>		<b>83.0176</b>	<b>83.0176</b>		<b>1,310,804.1795</b>	<b>1,310,804.1795</b>	<b>25.1237</b>	<b>24.0314</b>	<b>1,318,593.6333</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4,276.023 4	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.89 99	11,509.89 99	10.9798	0.0000	11,784.39 46
Unmitigated	4,276.023 4	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269	0.0000	11,509.89 99	11,509.89 99	10.9798	0.0000	11,784.39 46

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	377.3241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,707.966 6					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.7328	73.4258	6,362.821 1	0.3376		35.4269	35.4269		35.4269	35.4269		11,509.89 99	11,509.89 99	10.9798		11,784.39 46
<b>Total</b>	<b>4,276.023 4</b>	<b>73.4258</b>	<b>6,362.821 1</b>	<b>0.3376</b>		<b>35.4269</b>	<b>35.4269</b>		<b>35.4269</b>	<b>35.4269</b>	<b>0.0000</b>	<b>11,509.89 99</b>	<b>11,509.89 99</b>	<b>10.9798</b>	<b>0.0000</b>	<b>11,784.39 46</b>

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	377.3241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,707.9666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	190.7328	73.4258	6,362.8211	0.3376		35.4269	35.4269		35.4269	35.4269		11,509.8999	11,509.8999	10.9798		11,784.3946
<b>Total</b>	<b>4,276.0234</b>	<b>73.4258</b>	<b>6,362.8211</b>	<b>0.3376</b>		<b>35.4269</b>	<b>35.4269</b>		<b>35.4269</b>	<b>35.4269</b>	<b>0.0000</b>	<b>11,509.8999</b>	<b>11,509.8999</b>	<b>10.9798</b>	<b>0.0000</b>	<b>11,784.3946</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - GPU 2040 - Riverside-South Coast County, Summer

**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**

---

**CalEEMod Output – Sample Construction  
Emissions**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**9504 Moreno Valley GPU - Construction**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

---

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	300.00	Dwelling Unit	4.00	300,000.00	858
Strip Mall	10.00	1000sqft	1.00	10,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - 5-acre mixed use project

Demolition -

Construction Phase - Arch coatings simultaneous with building

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	115.00
tblConstructionPhase	PhaseEndDate	2/23/2023	1/4/2023
tblConstructionPhase	PhaseStartDate	1/31/2023	7/28/2022
tblLandUse	LotAcreage	7.89	4.00
tblLandUse	LotAcreage	0.23	1.00

**2.0 Emissions Summary**

---



9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**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	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Energy	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
Mobile	3.3833	23.9321	40.7789	0.1971	16.3350	0.1153	16.4503	4.3700	0.1075	4.4775		20,156.6692	20,156.6692	0.9319		20,179.9663
<b>Total</b>	<b>89.5495</b>	<b>31.5685</b>	<b>218.5832</b>	<b>0.5948</b>	<b>16.3350</b>	<b>23.2599</b>	<b>39.5948</b>	<b>4.3700</b>	<b>23.2520</b>	<b>27.6220</b>	<b>2,810.0755</b>	<b>27,038.9242</b>	<b>29,848.9997</b>	<b>9.3825</b>	<b>0.2171</b>	<b>30,148.2534</b>

**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	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Energy	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
Mobile	3.3833	23.9321	40.7789	0.1971	16.3350	0.1153	16.4503	4.3700	0.1075	4.4775		20,156.6692	20,156.6692	0.9319		20,179.9663
<b>Total</b>	<b>89.5495</b>	<b>31.5685</b>	<b>218.5832</b>	<b>0.5948</b>	<b>16.3350</b>	<b>23.2599</b>	<b>39.5948</b>	<b>4.3700</b>	<b>23.2520</b>	<b>27.6220</b>	<b>2,810.0755</b>	<b>27,038.9242</b>	<b>29,848.9997</b>	<b>9.3825</b>	<b>0.2171</b>	<b>30,148.2534</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/4/2022	5	5	
3	Grading	Grading	2/5/2022	2/16/2022	5	8	
4	Building Construction	Building Construction	2/17/2022	1/4/2023	5	230	
5	Paving	Paving	1/5/2023	1/30/2023	5	18	
6	Architectural Coating	Architectural Coating	7/28/2022	1/4/2023	5	115	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 15,000; Non-Residential Outdoor: 5,000; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## 9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

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
Architectural Coating	1	44.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	219.00	34.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	91.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2022**

**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					0.9904	0.0000	0.9904	0.1500	0.0000	0.1500			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9904</b>	<b>1.2427</b>	<b>2.2331</b>	<b>0.1500</b>	<b>1.1553</b>	<b>1.3052</b>		<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.2 Demolition - 2022**

**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	0.0219	0.9050	0.1468	3.3000e-003	0.0796	2.5300e-003	0.0821	0.0218	2.4300e-003	0.0242		350.4445	350.4445	0.0222		350.9988
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	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
<b>Total</b>	<b>0.0874</b>	<b>0.9427</b>	<b>0.5591</b>	<b>4.6800e-003</b>	<b>0.2472</b>	<b>3.4900e-003</b>	<b>0.2508</b>	<b>0.0663</b>	<b>3.3200e-003</b>	<b>0.0696</b>		<b>488.4954</b>	<b>488.4954</b>	<b>0.0252</b>		<b>489.1240</b>

**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					0.9904	0.0000	0.9904	0.1500	0.0000	0.1500			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9904</b>	<b>1.2427</b>	<b>2.2331</b>	<b>0.1500</b>	<b>1.1553</b>	<b>1.3052</b>	<b>0.0000</b>	<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.2 Demolition - 2022**

**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	0.0219	0.9050	0.1468	3.3000e-003	0.0796	2.5300e-003	0.0821	0.0218	2.4300e-003	0.0242		350.4445	350.4445	0.0222		350.9988
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	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
<b>Total</b>	<b>0.0874</b>	<b>0.9427</b>	<b>0.5591</b>	<b>4.6800e-003</b>	<b>0.2472</b>	<b>3.4900e-003</b>	<b>0.2508</b>	<b>0.0663</b>	<b>3.3200e-003</b>	<b>0.0696</b>		<b>488.4954</b>	<b>488.4954</b>	<b>0.0252</b>		<b>489.1240</b>

**3.3 Site Preparation - 2022**

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>18.0663</b>	<b>1.6126</b>	<b>19.6788</b>	<b>9.9307</b>	<b>1.4836</b>	<b>11.4143</b>		<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.3 Site Preparation - 2022**

**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	0.0786	0.0452	0.4947	1.6600e-003	0.2012	1.1500e-003	0.2024	0.0534	1.0600e-003	0.0544		165.6610	165.6610	3.5700e-003		165.7503
<b>Total</b>	<b>0.0786</b>	<b>0.0452</b>	<b>0.4947</b>	<b>1.6600e-003</b>	<b>0.2012</b>	<b>1.1500e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.0600e-003</b>	<b>0.0544</b>		<b>165.6610</b>	<b>165.6610</b>	<b>3.5700e-003</b>		<b>165.7503</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>18.0663</b>	<b>1.6126</b>	<b>19.6788</b>	<b>9.9307</b>	<b>1.4836</b>	<b>11.4143</b>	<b>0.0000</b>	<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.3 Site Preparation - 2022**

**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	0.0786	0.0452	0.4947	1.6600e-003	0.2012	1.1500e-003	0.2024	0.0534	1.0600e-003	0.0544		165.6610	165.6610	3.5700e-003		165.7503
<b>Total</b>	<b>0.0786</b>	<b>0.0452</b>	<b>0.4947</b>	<b>1.6600e-003</b>	<b>0.2012</b>	<b>1.1500e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.0600e-003</b>	<b>0.0544</b>		<b>165.6610</b>	<b>165.6610</b>	<b>3.5700e-003</b>		<b>165.7503</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
<b>Total</b>	<b>1.9486</b>	<b>20.8551</b>	<b>15.2727</b>	<b>0.0297</b>	<b>6.5523</b>	<b>0.9409</b>	<b>7.4932</b>	<b>3.3675</b>	<b>0.8656</b>	<b>4.2331</b>		<b>2,872.0464</b>	<b>2,872.0464</b>	<b>0.9289</b>		<b>2,895.2684</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.4 Grading - 2022**

**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	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
<b>Total</b>	<b>0.0655</b>	<b>0.0377</b>	<b>0.4123</b>	<b>1.3800e-003</b>	<b>0.1677</b>	<b>9.6000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.9000e-004</b>	<b>0.0454</b>		<b>138.0508</b>	<b>138.0508</b>	<b>2.9800e-003</b>		<b>138.1253</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
<b>Total</b>	<b>1.9486</b>	<b>20.8551</b>	<b>15.2727</b>	<b>0.0297</b>	<b>6.5523</b>	<b>0.9409</b>	<b>7.4932</b>	<b>3.3675</b>	<b>0.8656</b>	<b>4.2331</b>	<b>0.0000</b>	<b>2,872.0464</b>	<b>2,872.0464</b>	<b>0.9289</b>		<b>2,895.2684</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.4 Grading - 2022**

**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	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
<b>Total</b>	<b>0.0655</b>	<b>0.0377</b>	<b>0.4123</b>	<b>1.3800e-003</b>	<b>0.1677</b>	<b>9.6000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.9000e-004</b>	<b>0.0454</b>		<b>138.0508</b>	<b>138.0508</b>	<b>2.9800e-003</b>		<b>138.1253</b>

**3.5 Building Construction - 2022**

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.5 Building Construction - 2022**

**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	0.0787	2.9387	0.6199	8.4000e-003	0.2177	5.1900e-003	0.2229	0.0627	4.9700e-003	0.0677		886.3023	886.3023	0.0702		888.0575
Worker	0.9559	0.5503	6.0191	0.0202	2.4479	0.0140	2.4620	0.6492	0.0129	0.6621		2,015.5422	2,015.5422	0.0435		2,016.6289
<b>Total</b>	<b>1.0346</b>	<b>3.4890</b>	<b>6.6390</b>	<b>0.0286</b>	<b>2.6656</b>	<b>0.0192</b>	<b>2.6849</b>	<b>0.7119</b>	<b>0.0179</b>	<b>0.7298</b>		<b>2,901.8444</b>	<b>2,901.8444</b>	<b>0.1137</b>		<b>2,904.6864</b>

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.5 Building Construction - 2022**

**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	0.0787	2.9387	0.6199	8.4000e-003	0.2177	5.1900e-003	0.2229	0.0627	4.9700e-003	0.0677		886.3023	886.3023	0.0702		888.0575
Worker	0.9559	0.5503	6.0191	0.0202	2.4479	0.0140	2.4620	0.6492	0.0129	0.6621		2,015.5422	2,015.5422	0.0435		2,016.6289
<b>Total</b>	<b>1.0346</b>	<b>3.4890</b>	<b>6.6390</b>	<b>0.0286</b>	<b>2.6656</b>	<b>0.0192</b>	<b>2.6849</b>	<b>0.7119</b>	<b>0.0179</b>	<b>0.7298</b>		<b>2,901.8444</b>	<b>2,901.8444</b>	<b>0.1137</b>		<b>2,904.6864</b>

**3.5 Building Construction - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.5 Building Construction - 2023**

**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	0.0601	2.2018	0.5315	8.1800e-003	0.2177	2.3200e-003	0.2200	0.0627	2.2200e-003	0.0649		863.2690	863.2690	0.0535		864.6075
Worker	0.8991	0.4960	5.5468	0.0194	2.4479	0.0137	2.4616	0.6492	0.0126	0.6618		1,939.0524	1,939.0524	0.0391		1,940.0291
<b>Total</b>	<b>0.9592</b>	<b>2.6978</b>	<b>6.0783</b>	<b>0.0276</b>	<b>2.6656</b>	<b>0.0160</b>	<b>2.6816</b>	<b>0.7119</b>	<b>0.0148</b>	<b>0.7267</b>		<b>2,802.3214</b>	<b>2,802.3214</b>	<b>0.0926</b>		<b>2,804.6366</b>

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.5 Building Construction - 2023**

**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	0.0601	2.2018	0.5315	8.1800e-003	0.2177	2.3200e-003	0.2200	0.0627	2.2200e-003	0.0649		863.2690	863.2690	0.0535		864.6075
Worker	0.8991	0.4960	5.5468	0.0194	2.4479	0.0137	2.4616	0.6492	0.0126	0.6618		1,939.0524	1,939.0524	0.0391		1,940.0291
<b>Total</b>	<b>0.9592</b>	<b>2.6978</b>	<b>6.0783</b>	<b>0.0276</b>	<b>2.6656</b>	<b>0.0160</b>	<b>2.6816</b>	<b>0.7119</b>	<b>0.0148</b>	<b>0.7267</b>		<b>2,802.3214</b>	<b>2,802.3214</b>	<b>0.0926</b>		<b>2,804.6366</b>

**3.6 Paving - 2023**

**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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.6 Paving - 2023**

**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	0.0616	0.0340	0.3799	1.3300e-003	0.1677	9.4000e-004	0.1686	0.0445	8.6000e-004	0.0453		132.8118	132.8118	2.6800e-003		132.8787
<b>Total</b>	<b>0.0616</b>	<b>0.0340</b>	<b>0.3799</b>	<b>1.3300e-003</b>	<b>0.1677</b>	<b>9.4000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.6000e-004</b>	<b>0.0453</b>		<b>132.8118</b>	<b>132.8118</b>	<b>2.6800e-003</b>		<b>132.8787</b>

**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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.6 Paving - 2023**

**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	0.0616	0.0340	0.3799	1.3300e-003	0.1677	9.4000e-004	0.1686	0.0445	8.6000e-004	0.0453		132.8118	132.8118	2.6800e-003		132.8787
<b>Total</b>	<b>0.0616</b>	<b>0.0340</b>	<b>0.3799</b>	<b>1.3300e-003</b>	<b>0.1677</b>	<b>9.4000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.6000e-004</b>	<b>0.0453</b>		<b>132.8118</b>	<b>132.8118</b>	<b>2.6800e-003</b>		<b>132.8787</b>

**3.7 Architectural Coating - 2022**

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.3339</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**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	0.1921	0.1106	1.2093	4.0600e-003	0.4918	2.8200e-003	0.4946	0.1304	2.6000e-003	0.1330		404.9491	404.9491	8.7300e-003		405.1674
<b>Total</b>	<b>0.1921</b>	<b>0.1106</b>	<b>1.2093</b>	<b>4.0600e-003</b>	<b>0.4918</b>	<b>2.8200e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.6000e-003</b>	<b>0.1330</b>		<b>404.9491</b>	<b>404.9491</b>	<b>8.7300e-003</b>		<b>405.1674</b>

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.3339</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**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	0.1921	0.1106	1.2093	4.0600e-003	0.4918	2.8200e-003	0.4946	0.1304	2.6000e-003	0.1330		404.9491	404.9491	8.7300e-003		405.1674
<b>Total</b>	<b>0.1921</b>	<b>0.1106</b>	<b>1.2093</b>	<b>4.0600e-003</b>	<b>0.4918</b>	<b>2.8200e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.6000e-003</b>	<b>0.1330</b>		<b>404.9491</b>	<b>404.9491</b>	<b>8.7300e-003</b>		<b>405.1674</b>

**3.7 Architectural Coating - 2023**

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.3210</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.7 Architectural Coating - 2023**

**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	0.1806	0.0997	1.1144	3.9100e-003	0.4918	2.7500e-003	0.4946	0.1304	2.5400e-003	0.1330		389.5813	389.5813	7.8500e-003		389.7775
<b>Total</b>	<b>0.1806</b>	<b>0.0997</b>	<b>1.1144</b>	<b>3.9100e-003</b>	<b>0.4918</b>	<b>2.7500e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.5400e-003</b>	<b>0.1330</b>		<b>389.5813</b>	<b>389.5813</b>	<b>7.8500e-003</b>		<b>389.7775</b>

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.3210</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**3.7 Architectural Coating - 2023**

**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	0.1806	0.0997	1.1144	3.9100e-003	0.4918	2.7500e-003	0.4946	0.1304	2.5400e-003	0.1330		389.5813	389.5813	7.8500e-003		389.7775
<b>Total</b>	<b>0.1806</b>	<b>0.0997</b>	<b>1.1144</b>	<b>3.9100e-003</b>	<b>0.4918</b>	<b>2.7500e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.5400e-003</b>	<b>0.1330</b>		<b>389.5813</b>	<b>389.5813</b>	<b>7.8500e-003</b>		<b>389.7775</b>

**4.0 Operational Detail - Mobile**

---

**4.1 Mitigation Measures Mobile**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

	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	3.3833	23.9321	40.7789	0.1971	16.3350	0.1153	16.4503	4.3700	0.1075	4.4775		20,156.66 92	20,156.66 92	0.9319		20,179.96 63
Unmitigated	3.3833	23.9321	40.7789	0.1971	16.3350	0.1153	16.4503	4.3700	0.1075	4.4775		20,156.66 92	20,156.66 92	0.9319		20,179.96 63

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,995.00	1,917.00	1758.00	6,663,446	6,663,446
Strip Mall	443.20	420.40	204.30	772,100	772,100
<b>Total</b>	<b>2,438.20</b>	<b>2,337.40</b>	<b>1,962.30</b>	<b>7,435,547</b>	<b>7,435,547</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Strip Mall	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**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	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
NaturalGas Unmitigated	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**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					
Apartments Mid Rise	12159.5	0.1311	1.1206	0.4768	7.1500e-003		0.0906	0.0906		0.0906	0.0906		1,430.5315	1,430.5315	0.0274	0.0262	1,439.0324
Strip Mall	60.8219	6.6000e-004	5.9600e-003	5.0100e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.1555	7.1555	1.4000e-004	1.3000e-004	7.1980
<b>Total</b>		<b>0.1318</b>	<b>1.1265</b>	<b>0.4819</b>	<b>7.1900e-003</b>		<b>0.0911</b>	<b>0.0911</b>		<b>0.0911</b>	<b>0.0911</b>		<b>1,437.6870</b>	<b>1,437.6870</b>	<b>0.0276</b>	<b>0.0264</b>	<b>1,446.2305</b>

**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					
Apartments Mid Rise	12.1595	0.1311	1.1206	0.4768	7.1500e-003		0.0906	0.0906		0.0906	0.0906		1,430.5315	1,430.5315	0.0274	0.0262	1,439.0324
Strip Mall	0.0608219	6.6000e-004	5.9600e-003	5.0100e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.1555	7.1555	1.4000e-004	1.3000e-004	7.1980
<b>Total</b>		<b>0.1318</b>	<b>1.1265</b>	<b>0.4819</b>	<b>7.1900e-003</b>		<b>0.0911</b>	<b>0.0911</b>		<b>0.0911</b>	<b>0.0911</b>		<b>1,437.6870</b>	<b>1,437.6870</b>	<b>0.0276</b>	<b>0.0264</b>	<b>1,446.2305</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

	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	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Unmitigated	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566

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	0.5397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	78.6108	6.2245	152.5656	0.3892		22.9165	22.9165		22.9165	22.9165	2,810.0755	5,400.0000	8,210.0755	8.3802	0.1907	8,476.4172
Landscaping	0.7459	0.2854	24.7569	1.3100e-003		0.1370	0.1370		0.1370	0.1370		44.5679	44.5679	0.0429		45.6394
<b>Total</b>	<b>86.0344</b>	<b>6.5099</b>	<b>177.3225</b>	<b>0.3905</b>		<b>23.0535</b>	<b>23.0535</b>		<b>23.0535</b>	<b>23.0535</b>	<b>2,810.0755</b>	<b>5,444.5679</b>	<b>8,254.6434</b>	<b>8.4231</b>	<b>0.1907</b>	<b>8,522.0566</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	78.6108	6.2245	152.5656	0.3892		22.9165	22.9165		22.9165	22.9165	2,810.0755	5,400.0000	8,210.0755	8.3802	0.1907	8,476.4172
Landscaping	0.7459	0.2854	24.7569	1.3100e-003		0.1370	0.1370		0.1370	0.1370		44.5679	44.5679	0.0429		45.6394
<b>Total</b>	<b>86.0344</b>	<b>6.5099</b>	<b>177.3225</b>	<b>0.3905</b>		<b>23.0535</b>	<b>23.0535</b>		<b>23.0535</b>	<b>23.0535</b>	<b>2,810.0755</b>	<b>5,444.5679</b>	<b>8,254.6434</b>	<b>8.4231</b>	<b>0.1907</b>	<b>8,522.0566</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Winter

**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**

---

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**9504 Moreno Valley GPU - Construction**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	300.00	Dwelling Unit	4.00	300,000.00	858
Strip Mall	10.00	1000sqft	1.00	10,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - 5-acre mixed use project

Demolition -

Construction Phase - Arch coatings simultaneous with building

## 9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	115.00
tblConstructionPhase	PhaseEndDate	2/23/2023	1/4/2023
tblConstructionPhase	PhaseStartDate	1/31/2023	7/28/2022
tblLandUse	LotAcreage	7.89	4.00
tblLandUse	LotAcreage	0.23	1.00

## 2.0 Emissions Summary

---



9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Energy	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
Mobile	4.0368	24.0392	47.2236	0.2136	16.3350	0.1145	16.4495	4.3700	0.1068	4.4767		21,816.5677	21,816.5677	0.9081		21,839.2700
<b>Total</b>	<b>90.2030</b>	<b>31.6756</b>	<b>225.0279</b>	<b>0.6113</b>	<b>16.3350</b>	<b>23.2591</b>	<b>39.5941</b>	<b>4.3700</b>	<b>23.2513</b>	<b>27.6213</b>	<b>2,810.0755</b>	<b>28,698.8226</b>	<b>31,508.8981</b>	<b>9.3587</b>	<b>0.2171</b>	<b>31,807.5570</b>

**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	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Energy	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
Mobile	4.0368	24.0392	47.2236	0.2136	16.3350	0.1145	16.4495	4.3700	0.1068	4.4767		21,816.5677	21,816.5677	0.9081		21,839.2700
<b>Total</b>	<b>90.2030</b>	<b>31.6756</b>	<b>225.0279</b>	<b>0.6113</b>	<b>16.3350</b>	<b>23.2591</b>	<b>39.5941</b>	<b>4.3700</b>	<b>23.2513</b>	<b>27.6213</b>	<b>2,810.0755</b>	<b>28,698.8226</b>	<b>31,508.8981</b>	<b>9.3587</b>	<b>0.2171</b>	<b>31,807.5570</b>

## 9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

---

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/4/2022	5	5	
3	Grading	Grading	2/5/2022	2/16/2022	5	8	
4	Building Construction	Building Construction	2/17/2022	1/4/2023	5	230	
5	Paving	Paving	1/5/2023	1/30/2023	5	18	
6	Architectural Coating	Architectural Coating	7/28/2022	1/4/2023	5	115	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 4**

**Acres of Paving: 0**

**Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 15,000; Non-Residential Outdoor: 5,000; Striped Parking Area: 0 (Architectural Coating – sqft)**

#### OffRoad Equipment

## 9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

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
Architectural Coating	1	44.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	219.00	34.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	91.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2022**

**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					0.9904	0.0000	0.9904	0.1500	0.0000	0.1500			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9904</b>	<b>1.2427</b>	<b>2.2331</b>	<b>0.1500</b>	<b>1.1553</b>	<b>1.3052</b>		<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.2 Demolition - 2022**

**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	0.0208	0.9011	0.1262	3.3900e-003	0.0796	2.5000e-003	0.0821	0.0218	2.3900e-003	0.0242		359.5544	359.5544	0.0203		360.0612
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	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
<b>Total</b>	<b>0.0873</b>	<b>0.9376</b>	<b>0.6377</b>	<b>4.9300e-003</b>	<b>0.2472</b>	<b>3.4600e-003</b>	<b>0.2507</b>	<b>0.0663</b>	<b>3.2800e-003</b>	<b>0.0696</b>		<b>513.4313</b>	<b>513.4313</b>	<b>0.0237</b>		<b>514.0236</b>

**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					0.9904	0.0000	0.9904	0.1500	0.0000	0.1500			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9904</b>	<b>1.2427</b>	<b>2.2331</b>	<b>0.1500</b>	<b>1.1553</b>	<b>1.3052</b>	<b>0.0000</b>	<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.2 Demolition - 2022**

**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	0.0208	0.9011	0.1262	3.3900e-003	0.0796	2.5000e-003	0.0821	0.0218	2.3900e-003	0.0242		359.5544	359.5544	0.0203		360.0612
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	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
<b>Total</b>	<b>0.0873</b>	<b>0.9376</b>	<b>0.6377</b>	<b>4.9300e-003</b>	<b>0.2472</b>	<b>3.4600e-003</b>	<b>0.2507</b>	<b>0.0663</b>	<b>3.2800e-003</b>	<b>0.0696</b>		<b>513.4313</b>	<b>513.4313</b>	<b>0.0237</b>		<b>514.0236</b>

**3.3 Site Preparation - 2022**

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>18.0663</b>	<b>1.6126</b>	<b>19.6788</b>	<b>9.9307</b>	<b>1.4836</b>	<b>11.4143</b>		<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.3 Site Preparation - 2022**

**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	0.0798	0.0438	0.6138	1.8500e-003	0.2012	1.1500e-003	0.2024	0.0534	1.0600e-003	0.0544		184.6523	184.6523	4.1000e-003		184.7549
<b>Total</b>	<b>0.0798</b>	<b>0.0438</b>	<b>0.6138</b>	<b>1.8500e-003</b>	<b>0.2012</b>	<b>1.1500e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.0600e-003</b>	<b>0.0544</b>		<b>184.6523</b>	<b>184.6523</b>	<b>4.1000e-003</b>		<b>184.7549</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>18.0663</b>	<b>1.6126</b>	<b>19.6788</b>	<b>9.9307</b>	<b>1.4836</b>	<b>11.4143</b>	<b>0.0000</b>	<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.3 Site Preparation - 2022**

**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	0.0798	0.0438	0.6138	1.8500e-003	0.2012	1.1500e-003	0.2024	0.0534	1.0600e-003	0.0544		184.6523	184.6523	4.1000e-003		184.7549
<b>Total</b>	<b>0.0798</b>	<b>0.0438</b>	<b>0.6138</b>	<b>1.8500e-003</b>	<b>0.2012</b>	<b>1.1500e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.0600e-003</b>	<b>0.0544</b>		<b>184.6523</b>	<b>184.6523</b>	<b>4.1000e-003</b>		<b>184.7549</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
<b>Total</b>	<b>1.9486</b>	<b>20.8551</b>	<b>15.2727</b>	<b>0.0297</b>	<b>6.5523</b>	<b>0.9409</b>	<b>7.4932</b>	<b>3.3675</b>	<b>0.8656</b>	<b>4.2331</b>		<b>2,872.0464</b>	<b>2,872.0464</b>	<b>0.9289</b>		<b>2,895.2684</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.4 Grading - 2022**

**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	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
<b>Total</b>	<b>0.0665</b>	<b>0.0365</b>	<b>0.5115</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>9.6000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.9000e-004</b>	<b>0.0454</b>		<b>153.8769</b>	<b>153.8769</b>	<b>3.4200e-003</b>		<b>153.9624</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
<b>Total</b>	<b>1.9486</b>	<b>20.8551</b>	<b>15.2727</b>	<b>0.0297</b>	<b>6.5523</b>	<b>0.9409</b>	<b>7.4932</b>	<b>3.3675</b>	<b>0.8656</b>	<b>4.2331</b>	<b>0.0000</b>	<b>2,872.0464</b>	<b>2,872.0464</b>	<b>0.9289</b>		<b>2,895.2684</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.4 Grading - 2022**

**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	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
<b>Total</b>	<b>0.0665</b>	<b>0.0365</b>	<b>0.5115</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>9.6000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.9000e-004</b>	<b>0.0454</b>		<b>153.8769</b>	<b>153.8769</b>	<b>3.4200e-003</b>		<b>153.9624</b>

**3.5 Building Construction - 2022**

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.5 Building Construction - 2022**

**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	0.0740	2.9685	0.5221	8.7300e-003	0.2177	5.0300e-003	0.2227	0.0627	4.8100e-003	0.0675		921.1456	921.1456	0.0630		922.7193
Worker	0.9712	0.5323	7.4681	0.0225	2.4479	0.0140	2.4620	0.6492	0.0129	0.6621		2,246.6028	2,246.6028	0.0499		2,247.8514
<b>Total</b>	<b>1.0452</b>	<b>3.5008</b>	<b>7.9903</b>	<b>0.0313</b>	<b>2.6656</b>	<b>0.0191</b>	<b>2.6847</b>	<b>0.7119</b>	<b>0.0177</b>	<b>0.7296</b>		<b>3,167.7484</b>	<b>3,167.7484</b>	<b>0.1129</b>		<b>3,170.5707</b>

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.5 Building Construction - 2022**

**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	0.0740	2.9685	0.5221	8.7300e-003	0.2177	5.0300e-003	0.2227	0.0627	4.8100e-003	0.0675		921.1456	921.1456	0.0630		922.7193
Worker	0.9712	0.5323	7.4681	0.0225	2.4479	0.0140	2.4620	0.6492	0.0129	0.6621		2,246.6028	2,246.6028	0.0499		2,247.8514
<b>Total</b>	<b>1.0452</b>	<b>3.5008</b>	<b>7.9903</b>	<b>0.0313</b>	<b>2.6656</b>	<b>0.0191</b>	<b>2.6847</b>	<b>0.7119</b>	<b>0.0177</b>	<b>0.7296</b>		<b>3,167.7484</b>	<b>3,167.7484</b>	<b>0.1129</b>		<b>3,170.5707</b>

**3.5 Building Construction - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.5 Building Construction - 2023**

**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	0.0568	2.2322	0.4602	8.4900e-003	0.2177	2.2500e-003	0.2199	0.0627	2.1500e-003	0.0648		896.6465	896.6465	0.0483		897.8540
Worker	0.9106	0.4800	6.8922	0.0217	2.4479	0.0137	2.4616	0.6492	0.0126	0.6618		2,161.2261	2,161.2261	0.0448		2,162.3467
<b>Total</b>	<b>0.9674</b>	<b>2.7122</b>	<b>7.3524</b>	<b>0.0302</b>	<b>2.6656</b>	<b>0.0160</b>	<b>2.6816</b>	<b>0.7119</b>	<b>0.0148</b>	<b>0.7266</b>		<b>3,057.8725</b>	<b>3,057.8725</b>	<b>0.0931</b>		<b>3,060.2007</b>

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.5 Building Construction - 2023**

**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	0.0568	2.2322	0.4602	8.4900e-003	0.2177	2.2500e-003	0.2199	0.0627	2.1500e-003	0.0648		896.6465	896.6465	0.0483		897.8540
Worker	0.9106	0.4800	6.8922	0.0217	2.4479	0.0137	2.4616	0.6492	0.0126	0.6618		2,161.2261	2,161.2261	0.0448		2,162.3467
<b>Total</b>	<b>0.9674</b>	<b>2.7122</b>	<b>7.3524</b>	<b>0.0302</b>	<b>2.6656</b>	<b>0.0160</b>	<b>2.6816</b>	<b>0.7119</b>	<b>0.0148</b>	<b>0.7266</b>		<b>3,057.8725</b>	<b>3,057.8725</b>	<b>0.0931</b>		<b>3,060.2007</b>

**3.6 Paving - 2023**

**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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.6 Paving - 2023**

**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	0.0624	0.0329	0.4721	1.4900e-003	0.1677	9.4000e-004	0.1686	0.0445	8.6000e-004	0.0453		148.0292	148.0292	3.0700e-003		148.1059
<b>Total</b>	<b>0.0624</b>	<b>0.0329</b>	<b>0.4721</b>	<b>1.4900e-003</b>	<b>0.1677</b>	<b>9.4000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.6000e-004</b>	<b>0.0453</b>		<b>148.0292</b>	<b>148.0292</b>	<b>3.0700e-003</b>		<b>148.1059</b>

**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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.6 Paving - 2023**

**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	0.0624	0.0329	0.4721	1.4900e-003	0.1677	9.4000e-004	0.1686	0.0445	8.6000e-004	0.0453		148.0292	148.0292	3.0700e-003		148.1059
<b>Total</b>	<b>0.0624</b>	<b>0.0329</b>	<b>0.4721</b>	<b>1.4900e-003</b>	<b>0.1677</b>	<b>9.4000e-004</b>	<b>0.1686</b>	<b>0.0445</b>	<b>8.6000e-004</b>	<b>0.0453</b>		<b>148.0292</b>	<b>148.0292</b>	<b>3.0700e-003</b>		<b>148.1059</b>

**3.7 Architectural Coating - 2022**

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.3339</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**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	0.1951	0.1070	1.5004	4.5300e-003	0.4918	2.8200e-003	0.4946	0.1304	2.6000e-003	0.1330		451.3723	451.3723	0.0100		451.6231
<b>Total</b>	<b>0.1951</b>	<b>0.1070</b>	<b>1.5004</b>	<b>4.5300e-003</b>	<b>0.4918</b>	<b>2.8200e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.6000e-003</b>	<b>0.1330</b>		<b>451.3723</b>	<b>451.3723</b>	<b>0.0100</b>		<b>451.6231</b>

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.3339</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**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	0.1951	0.1070	1.5004	4.5300e-003	0.4918	2.8200e-003	0.4946	0.1304	2.6000e-003	0.1330		451.3723	451.3723	0.0100		451.6231
<b>Total</b>	<b>0.1951</b>	<b>0.1070</b>	<b>1.5004</b>	<b>4.5300e-003</b>	<b>0.4918</b>	<b>2.8200e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.6000e-003</b>	<b>0.1330</b>		<b>451.3723</b>	<b>451.3723</b>	<b>0.0100</b>		<b>451.6231</b>

**3.7 Architectural Coating - 2023**

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.3210</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.7 Architectural Coating - 2023**

**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	0.1830	0.0964	1.3847	4.3600e-003	0.4918	2.7500e-003	0.4946	0.1304	2.5400e-003	0.1330		434.2189	434.2189	9.0100e-003		434.4441
<b>Total</b>	<b>0.1830</b>	<b>0.0964</b>	<b>1.3847</b>	<b>4.3600e-003</b>	<b>0.4918</b>	<b>2.7500e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.5400e-003</b>	<b>0.1330</b>		<b>434.2189</b>	<b>434.2189</b>	<b>9.0100e-003</b>		<b>434.4441</b>

**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	17.1294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.3210</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**3.7 Architectural Coating - 2023**

**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	0.1830	0.0964	1.3847	4.3600e-003	0.4918	2.7500e-003	0.4946	0.1304	2.5400e-003	0.1330		434.2189	434.2189	9.0100e-003		434.4441
<b>Total</b>	<b>0.1830</b>	<b>0.0964</b>	<b>1.3847</b>	<b>4.3600e-003</b>	<b>0.4918</b>	<b>2.7500e-003</b>	<b>0.4946</b>	<b>0.1304</b>	<b>2.5400e-003</b>	<b>0.1330</b>		<b>434.2189</b>	<b>434.2189</b>	<b>9.0100e-003</b>		<b>434.4441</b>

**4.0 Operational Detail - Mobile**

---

**4.1 Mitigation Measures Mobile**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0368	24.0392	47.2236	0.2136	16.3350	0.1145	16.4495	4.3700	0.1068	4.4767		21,816.5677	21,816.5677	0.9081		21,839.2700
Unmitigated	4.0368	24.0392	47.2236	0.2136	16.3350	0.1145	16.4495	4.3700	0.1068	4.4767		21,816.5677	21,816.5677	0.9081		21,839.2700

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,995.00	1,917.00	1758.00	6,663,446	6,663,446
Strip Mall	443.20	420.40	204.30	772,100	772,100
<b>Total</b>	<b>2,438.20</b>	<b>2,337.40</b>	<b>1,962.30</b>	<b>7,435,547</b>	<b>7,435,547</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Strip Mall	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**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	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305
NaturalGas Unmitigated	0.1318	1.1266	0.4819	7.1900e-003		0.0911	0.0911		0.0911	0.0911		1,437.6870	1,437.6870	0.0276	0.0264	1,446.2305

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	12159.5	0.1311	1.1206	0.4768	7.1500e-003		0.0906	0.0906		0.0906	0.0906		1,430.5315	1,430.5315	0.0274	0.0262	1,439.0324
Strip Mall	60.8219	6.6000e-004	5.9600e-003	5.0100e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.1555	7.1555	1.4000e-004	1.3000e-004	7.1980
<b>Total</b>		<b>0.1318</b>	<b>1.1265</b>	<b>0.4819</b>	<b>7.1900e-003</b>		<b>0.0911</b>	<b>0.0911</b>		<b>0.0911</b>	<b>0.0911</b>		<b>1,437.6870</b>	<b>1,437.6870</b>	<b>0.0276</b>	<b>0.0264</b>	<b>1,446.2305</b>

**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					
Apartments Mid Rise	12.1595	0.1311	1.1206	0.4768	7.1500e-003		0.0906	0.0906		0.0906	0.0906		1,430.5315	1,430.5315	0.0274	0.0262	1,439.0324
Strip Mall	0.0608219	6.6000e-004	5.9600e-003	5.0100e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.1555	7.1555	1.4000e-004	1.3000e-004	7.1980
<b>Total</b>		<b>0.1318</b>	<b>1.1265</b>	<b>0.4819</b>	<b>7.1900e-003</b>		<b>0.0911</b>	<b>0.0911</b>		<b>0.0911</b>	<b>0.0911</b>		<b>1,437.6870</b>	<b>1,437.6870</b>	<b>0.0276</b>	<b>0.0264</b>	<b>1,446.2305</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566
Unmitigated	86.0344	6.5099	177.3225	0.3905		23.0535	23.0535		23.0535	23.0535	2,810.0755	5,444.5679	8,254.6434	8.4231	0.1907	8,522.0566

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	0.5397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	78.6108	6.2245	152.5656	0.3892		22.9165	22.9165		22.9165	22.9165	2,810.0755	5,400.0000	8,210.0755	8.3802	0.1907	8,476.4172
Landscaping	0.7459	0.2854	24.7569	1.3100e-003		0.1370	0.1370		0.1370	0.1370		44.5679	44.5679	0.0429		45.6394
<b>Total</b>	<b>86.0344</b>	<b>6.5099</b>	<b>177.3225</b>	<b>0.3905</b>		<b>23.0535</b>	<b>23.0535</b>		<b>23.0535</b>	<b>23.0535</b>	<b>2,810.0755</b>	<b>5,444.5679</b>	<b>8,254.6434</b>	<b>8.4231</b>	<b>0.1907</b>	<b>8,522.0566</b>

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	78.6108	6.2245	152.5656	0.3892		22.9165	22.9165		22.9165	22.9165	2,810.0755	5,400.0000	8,210.0755	8.3802	0.1907	8,476.4172
Landscaping	0.7459	0.2854	24.7569	1.3100e-003		0.1370	0.1370		0.1370	0.1370		44.5679	44.5679	0.0429		45.6394
<b>Total</b>	<b>86.0344</b>	<b>6.5099</b>	<b>177.3225</b>	<b>0.3905</b>		<b>23.0535</b>	<b>23.0535</b>		<b>23.0535</b>	<b>23.0535</b>	<b>2,810.0755</b>	<b>5,444.5679</b>	<b>8,254.6434</b>	<b>8.4231</b>	<b>0.1907</b>	<b>8,522.0566</b>

**7.0 Water Detail**

---

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

---

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

---

9504 Moreno Valley GPU - Construction - Riverside-South Coast County, Summer

**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**

---

## Appendix C



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

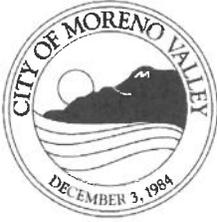
USPS CERTIFIED MAIL



9214 8901 9403 8311 2804 45

---

AGUA CALIENTE BAND OF CAHUILLA INDIANS  
TRIBAL HISTORIC PRESERVATION DIRECTOR  
5401 DINAH SHORE DR  
PALM SPRINGS CA 92264-5970



**Community Development Department  
Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Agua Caliente Band of Cahuilla Indians  
5401 Dinah Shore Drive  
Palm Springs, CA 92264

Attn: Patricia Garcia, Tribal Historic Preservation Director

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Director Garcia:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

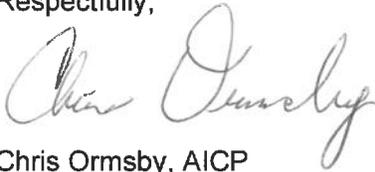
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Agua Caliente Band of Cahuilla Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Agua Caliente Band of Cahuilla Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

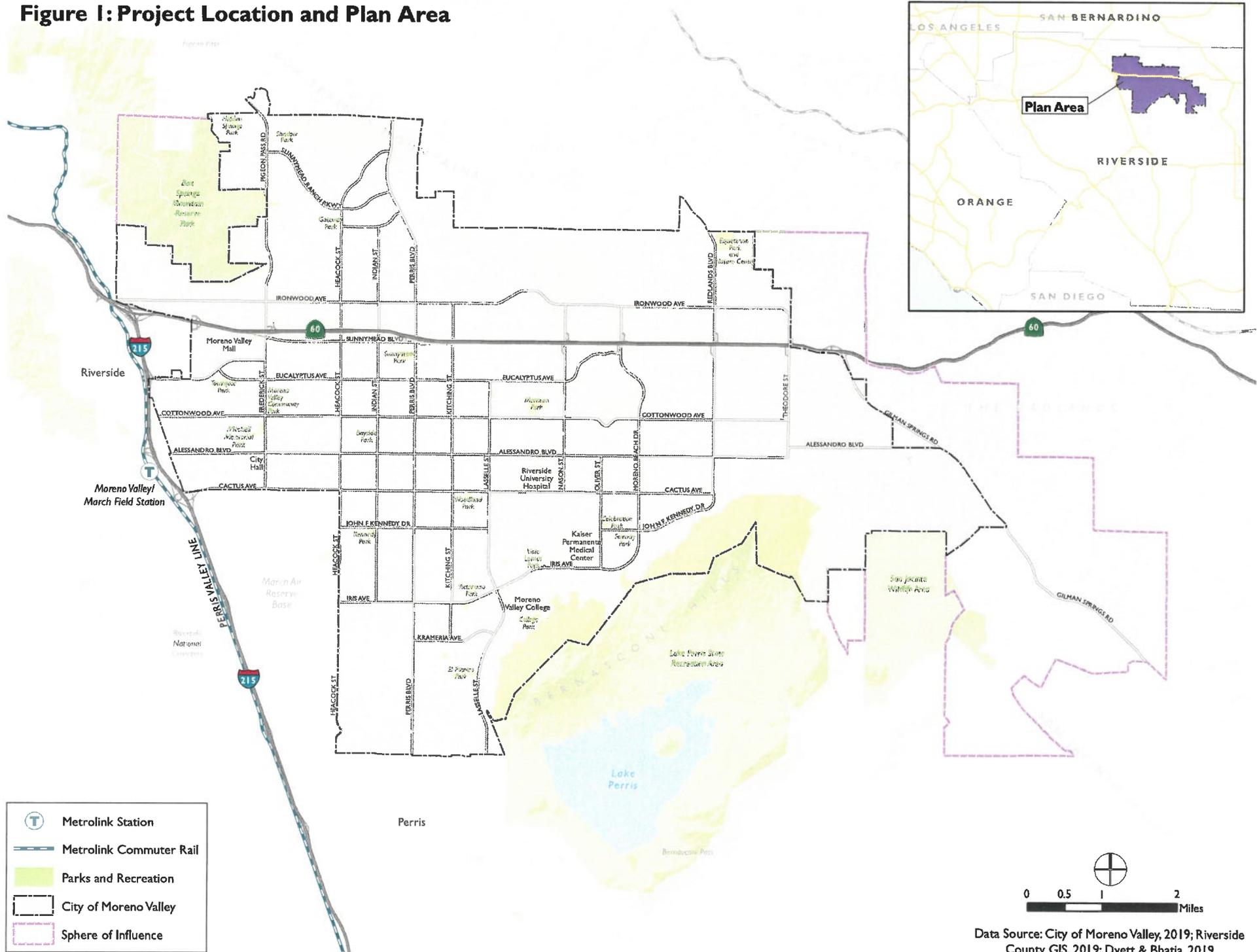
Respectfully,

A handwritten signature in cursive script, appearing to read "Chris Ormsby".

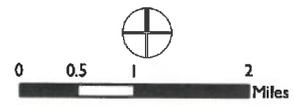
Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



-  Metrolink Station
-  Metrolink Commuter Rail
-  Parks and Recreation
-  City of Moreno Valley
-  Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

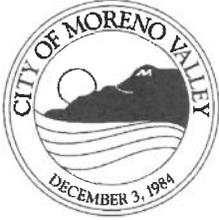
USPS CERTIFIED MAIL



9214 8901 9403 8311 2810 53

---

TORRES MARTINEZ DESERT CAHUILLA INDIANS  
MICHAEL MIRELEZ  
PO Box 1160  
THERMAL CA 92274-1160



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Torres Martinez Desert Cahuilla Indians  
P.O. Box 1160  
Thermal, CA 92274

Attn: Michael Mirelez, Cultural Resources Coordinator

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Mr. Mirelez:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

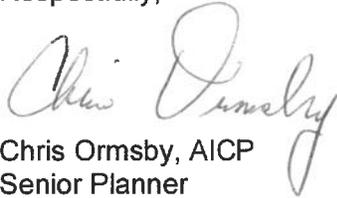
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Torres Martinez Desert Cahuilla Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Torres Martinez Desert Cahuilla Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

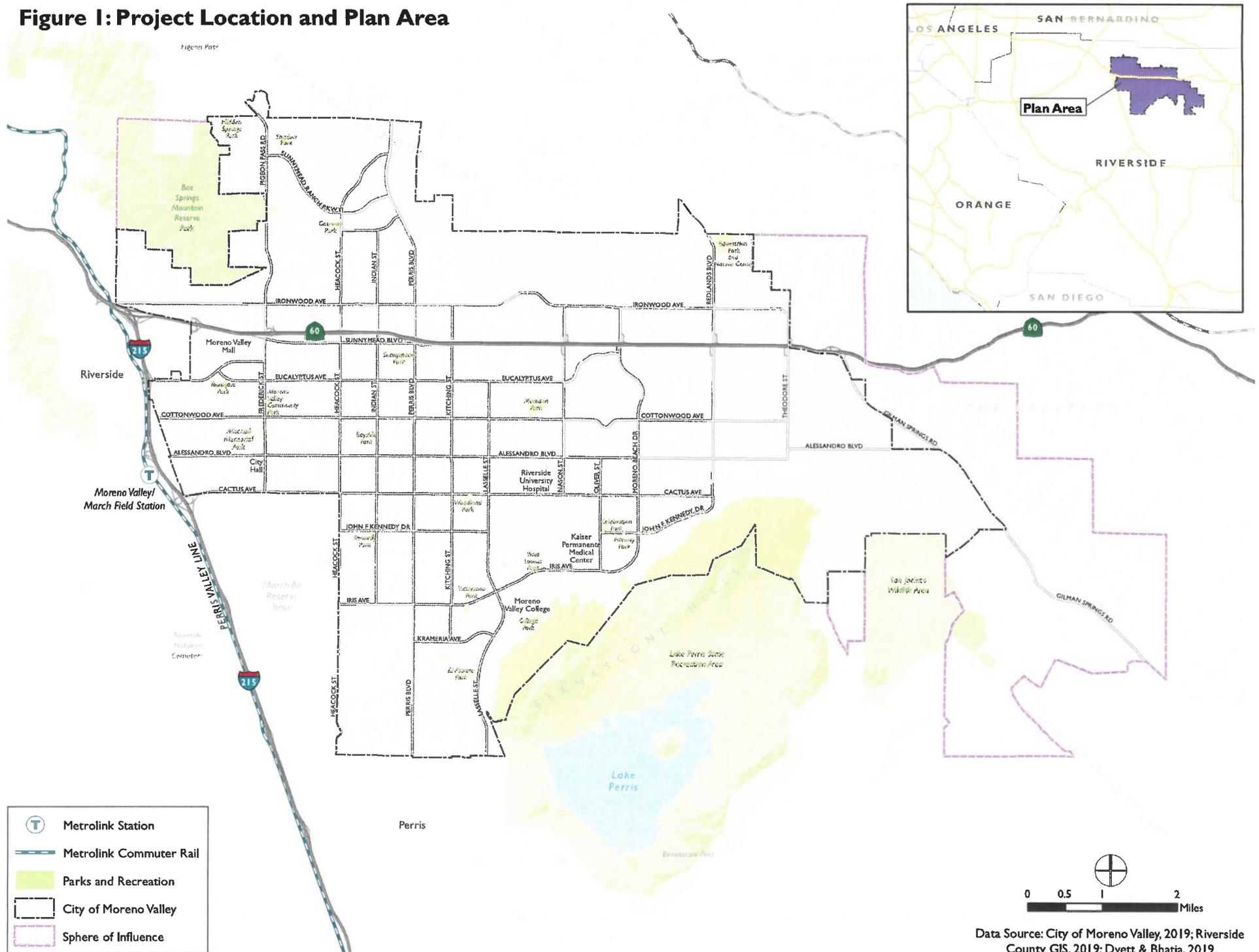
Respectfully,

A handwritten signature in cursive script, appearing to read "Chris Ormsby".

Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



-  Metrolink Station
-  Metrolink Commuter Rail
-  Parks and Recreation
-  City of Moreno Valley
-  Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

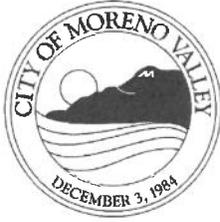
USPS CERTIFIED MAIL



9214 8901 9403 8311 2806 50

---

MORONGO BAND OF CAHUILLA MISSION INDIANS CALIFORNIA  
RAYMOND HUAUTE  
12700 PUMARRA RD  
BANNING CA 92220-6977



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Morongo Band of Mission Indians  
12700 Pumarra Road  
Banning, CA 92220

Attn: Raymond Huaute, Cultural Resource Specialist

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Mr. Huaute:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

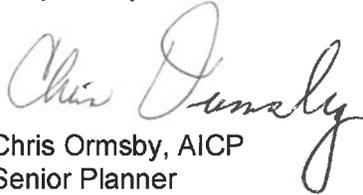
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Morongo Band of Mission Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Morongo Band of Mission Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

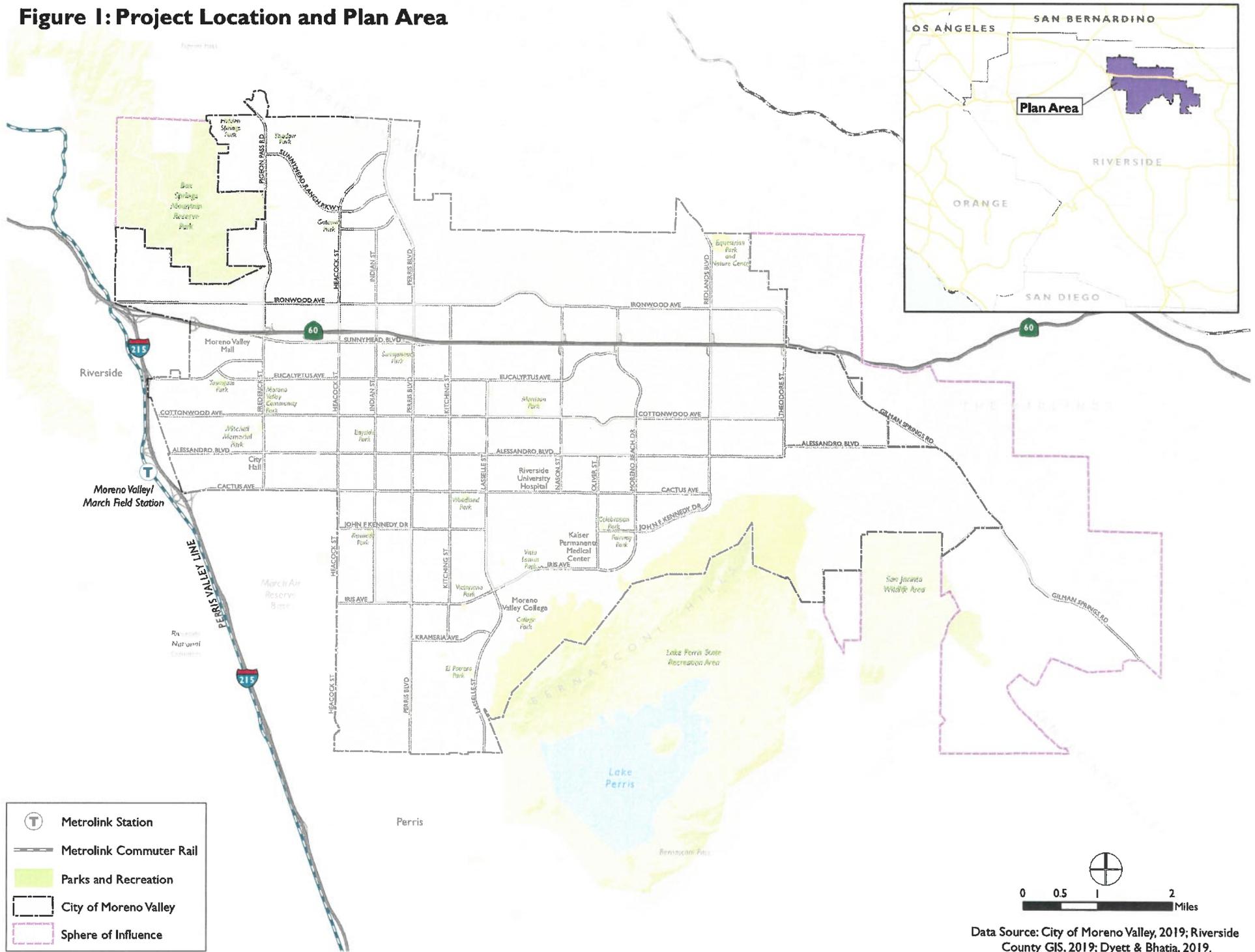
Respectfully,

A handwritten signature in cursive script that reads "Chris Ormsby". The signature is written in black ink and is positioned to the right of the typed name.

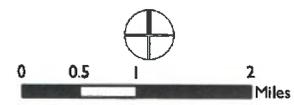
Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



- Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

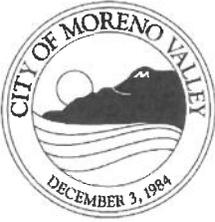
USPS CERTIFIED MAIL



9214 8901 9403 8311 2806 74

---

MORONGO BAND OF CAHUILLA MISSION INDIANS CALIFORNIA  
CHAIRPERSON ROBERT MARTIN  
12700 PUMARRA ROAD  
BANNING CA 92220



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Morongo Band of Mission Indians  
12700 Pumarra Road  
Banning, CA 92220

Attn: Robert Martin, Tribal Chairman

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Chairman Martin:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

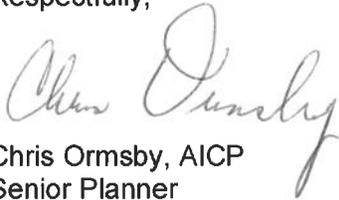
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Morongo Band of Mission Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Morongo Band of Mission Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

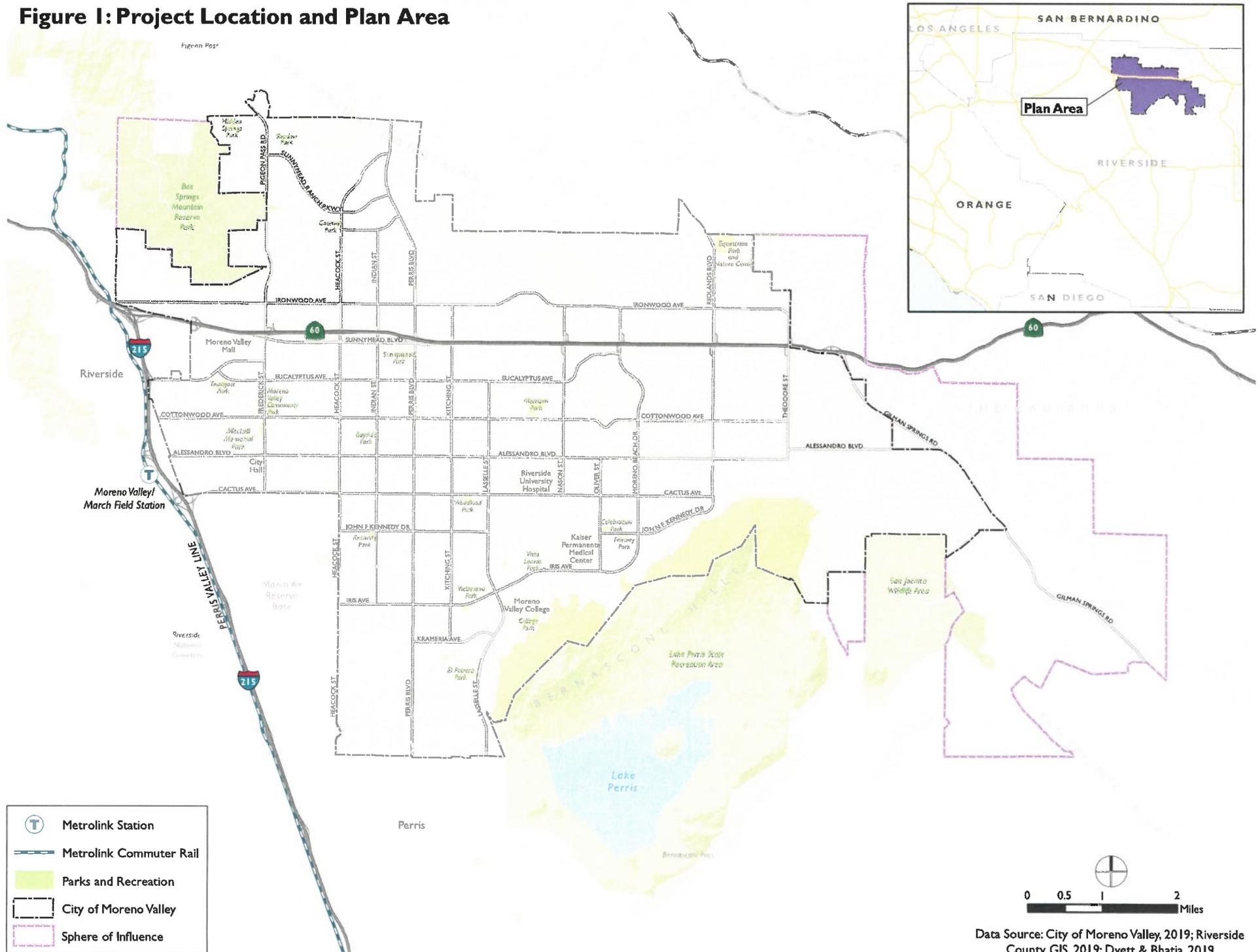
Respectfully,

A handwritten signature in cursive script, appearing to read "Chris Ormsby".

Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

USPS CERTIFIED MAIL



9214 8901 9403 8311 2807 66

---

PECHANGA CULTURAL RESOURCES DEPARTMENT  
EBRU T OZDIL  
PLANNING SPECIALIST  
PO Box 2183  
TEMECULA CA 92593-2183



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Pechanga Cultural Resources Department  
P.O. Box 2183  
Temecula, CA 92593

Attn: Ebru T. Ozdil, Planning Specialist

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Ms. Ozdil:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

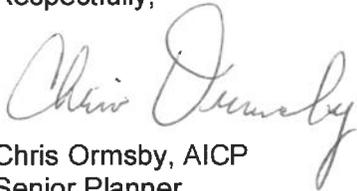
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Pechanga Cultural Resources Department  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Pechanga Cultural Resources Department has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

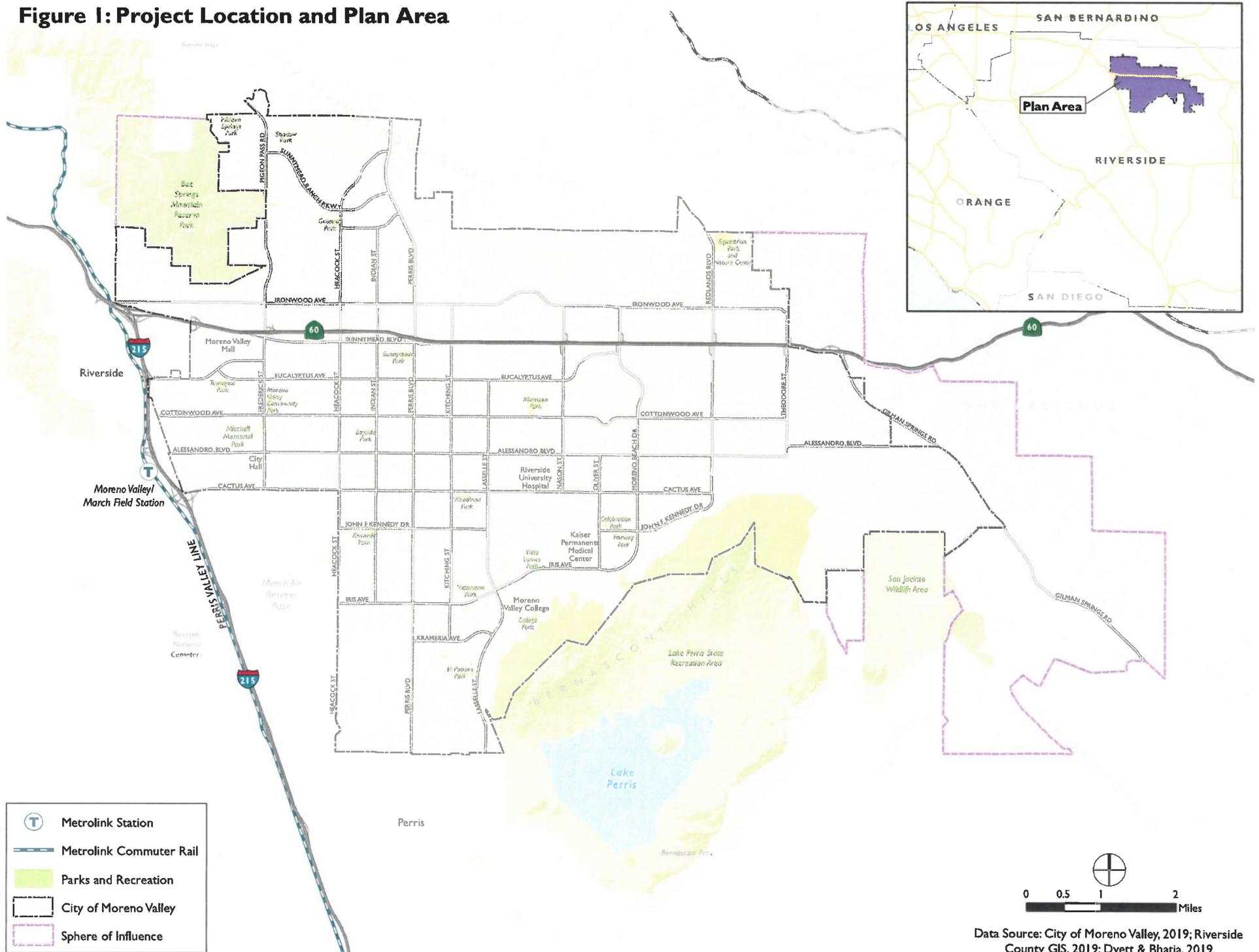
Respectfully,

A handwritten signature in cursive script that reads "Chris Ormsby".

Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

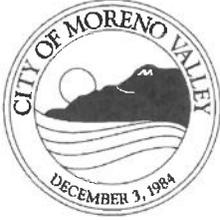
USPS CERTIFIED MAIL



9214 8901 9403 8311 2811 21

---

RINCON BAND OF LUISENO INDIANS  
CULTURAL RESOURCES DEPARTMENT MANAGER  
ONE GOVERNMENT CENTER LANE  
VALLEY CENTER CA 92082-6015



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Rincon Band of Luiseno Indians  
Cultural Resources Manager  
One Government Center Lane  
Valley Center, CA 92082

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Cultural Resources Manager:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

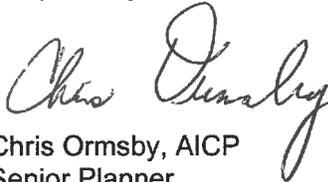
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Rincon Band of Luiseño Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Rincon Band of Luiseño Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

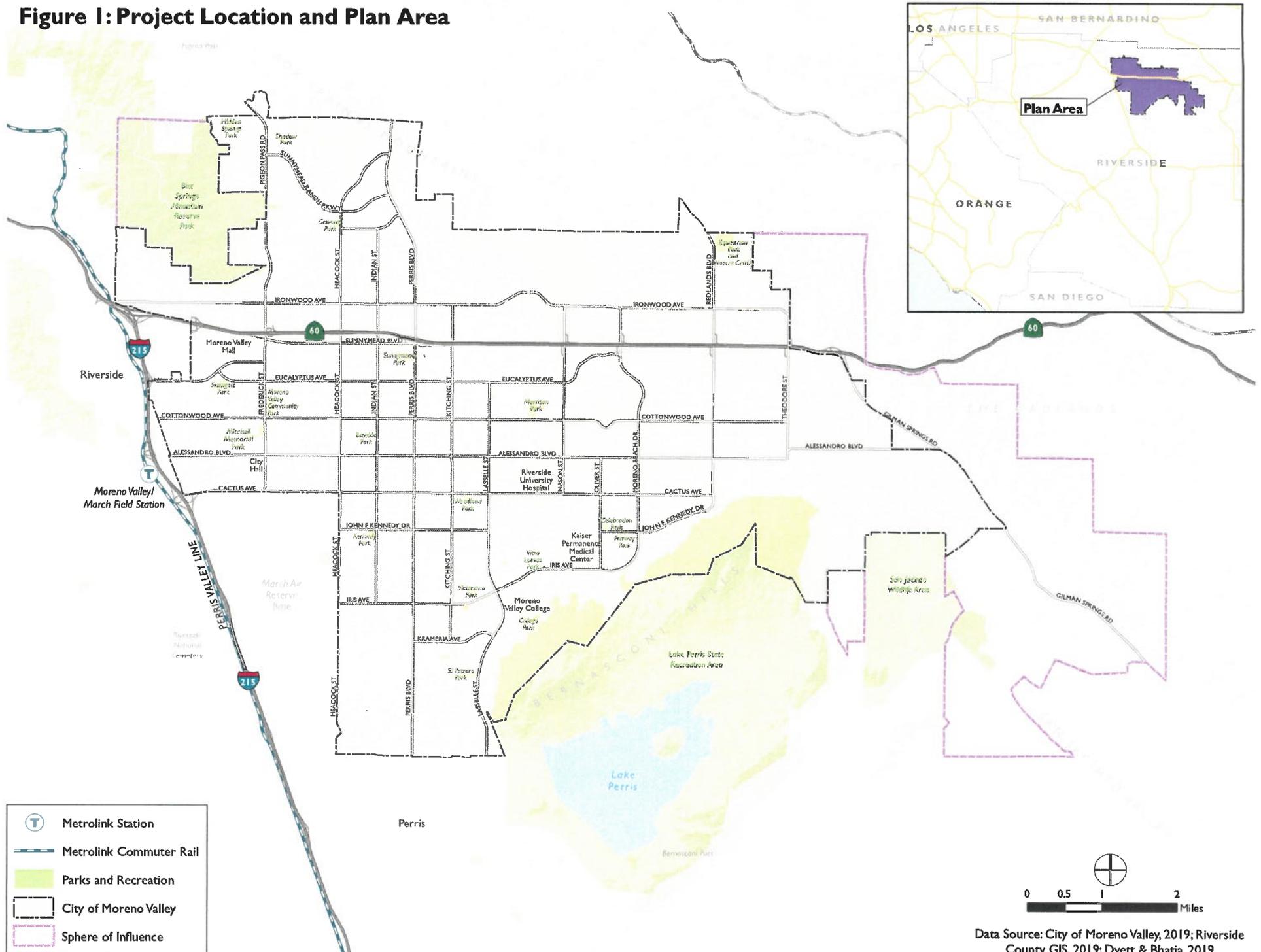
Respectfully,

A handwritten signature in black ink, appearing to read "Chris Ormsby". The signature is written in a cursive style with a large, stylized initial "C".

Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

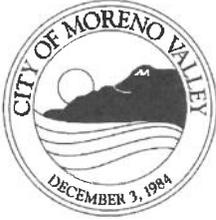
USPS CERTIFIED MAIL



9214 8901 9403 8311 2808 41

---

SAN MANUEL BAND OF MISSION INDIANS  
CRM DEPARTMENT DIRECTOR  
26569 COMMUNITY CENTER DR  
HIGHLAND CA 92346-6712



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

San Manuel Band of Mission Indians  
26569 Community Center Drive  
Highland, CA 92346

Attn: Lee Clauss, CRM Department Director

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Director Clauss:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

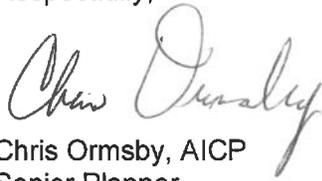
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to San Manuel Band of Mission Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the San Manuel Band of Mission Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

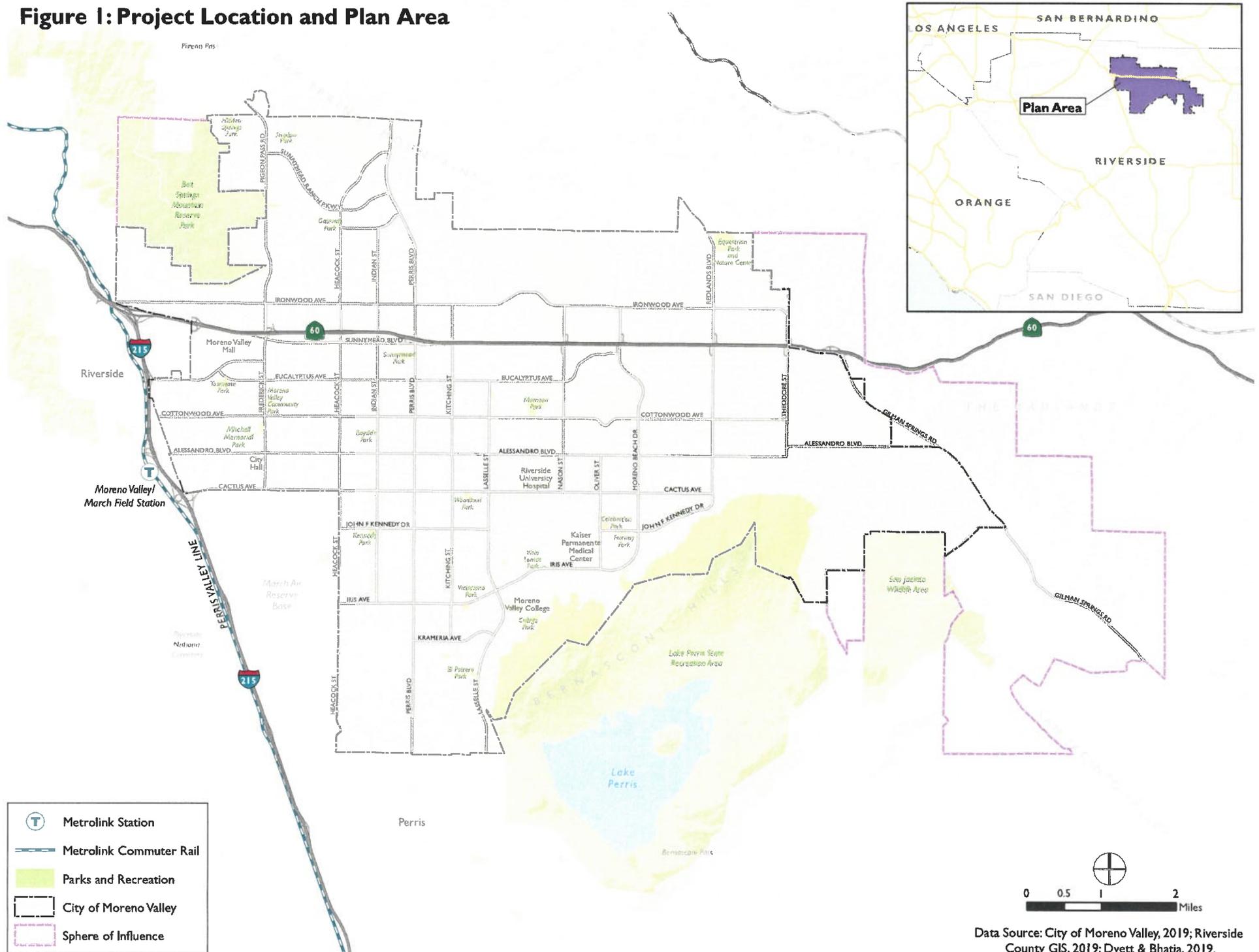
Respectfully,

A handwritten signature in cursive script that reads "Chris Ormsby". The signature is written in black ink and is positioned above the printed name and title.

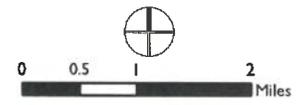
Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



- Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.



City of Moreno Valley  
Planning  
14177 Frederick St  
Moreno Valley ca 92553

---

USPS CERTIFIED MAIL



9214 8901 9403 8311 2808 96

---

SOBOBA BAND OF LUISENO INDIANS  
CULTURAL RESOURCE DIRECTOR  
PO Box 487  
SAN JACINTO CA 92581-0487



**Community Development Department**  
**Planning Division**  
14177 Frederick Street  
P. O. Box 88005  
Moreno Valley CA 92552-0805  
Telephone: 951.413-3206  
FAX: 951.413-3210

April 21, 2020

Soboba Band of Luiseño Indians  
P.O. Box 487  
San Jacinto, CA 92581

Attn: Joseph Ontiveros, Cultural Resource Director

**RE: MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update / Tribal Cultural Resources Pursuant to AB 52**

Dear Director Ontiveros:

The City of Moreno Valley is in the process of updating its General Plan, which is subject to the California Environmental Quality Act (CEQA) and Assembly Bill 52. A notice of preparation of an Environmental Impact Report (EIR) was publicly released on March 9, 2020 and an EIR will be prepared for the project. The City recognizes the importance of preserving tribal cultural resources and respectfully invites you to consult on and participate in the review process for this project, pursuant to Public Resources Code §21080.3.1(d).

Below please find a description of the proposed project, and a map showing the project location.

**Project Description:**

The Project will involve a comprehensive update to the City's General Plan and Housing Element, as well as preparation of Climate Action Plan that includes a community-wide inventory of GHG emissions and a strategy for reducing them to achieve State-mandated targets. Moreno Valley is projected to experience significant growth over the next 20 years, including 12,900 new jobs and 25,000 new households according to forecasts in the Regional Transportation Plan/Sustainable Communities Strategy. The project will involve updates to City policies and regulations to accommodate projected growth as well as the City's share of the regional housing need, in conformance with State housing law.

**Project Location:**

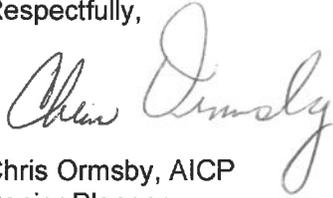
Moreno Valley is located within the northwestern portion of Riverside County, within the Inland Empire region of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of Irvine, and 43 miles west of Palm Springs. State Route 60, which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215, which runs in proximity to the westerly city limits (north and south direction), serve to connect the city to other communities throughout the region. The city is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and aircraft at the March Inland Port located at the March Air Reserve Base, which is south and west of the City limits.

Letter to Soboba Band of Luiseño Indians  
April 21, 2020  
Page 2

Pursuant to PRC § 21080.3.1 (b), the Soboba Band of Luiseño Indians has 30 days from the receipt of this letter to request consultation, in writing, with the City of Moreno Valley. If you provide the City of Moreno Valley with confidential information subject to Public Resources Code §21082.3(c), Government Code §6254.10, or Government Code Section §6254(r), we request that it be explicitly labeled and packaged to prevent inadvertent public disclosure.

If you have any questions, please contact me at (951) 413-3229 or [chriso@moval.org](mailto:chriso@moval.org).

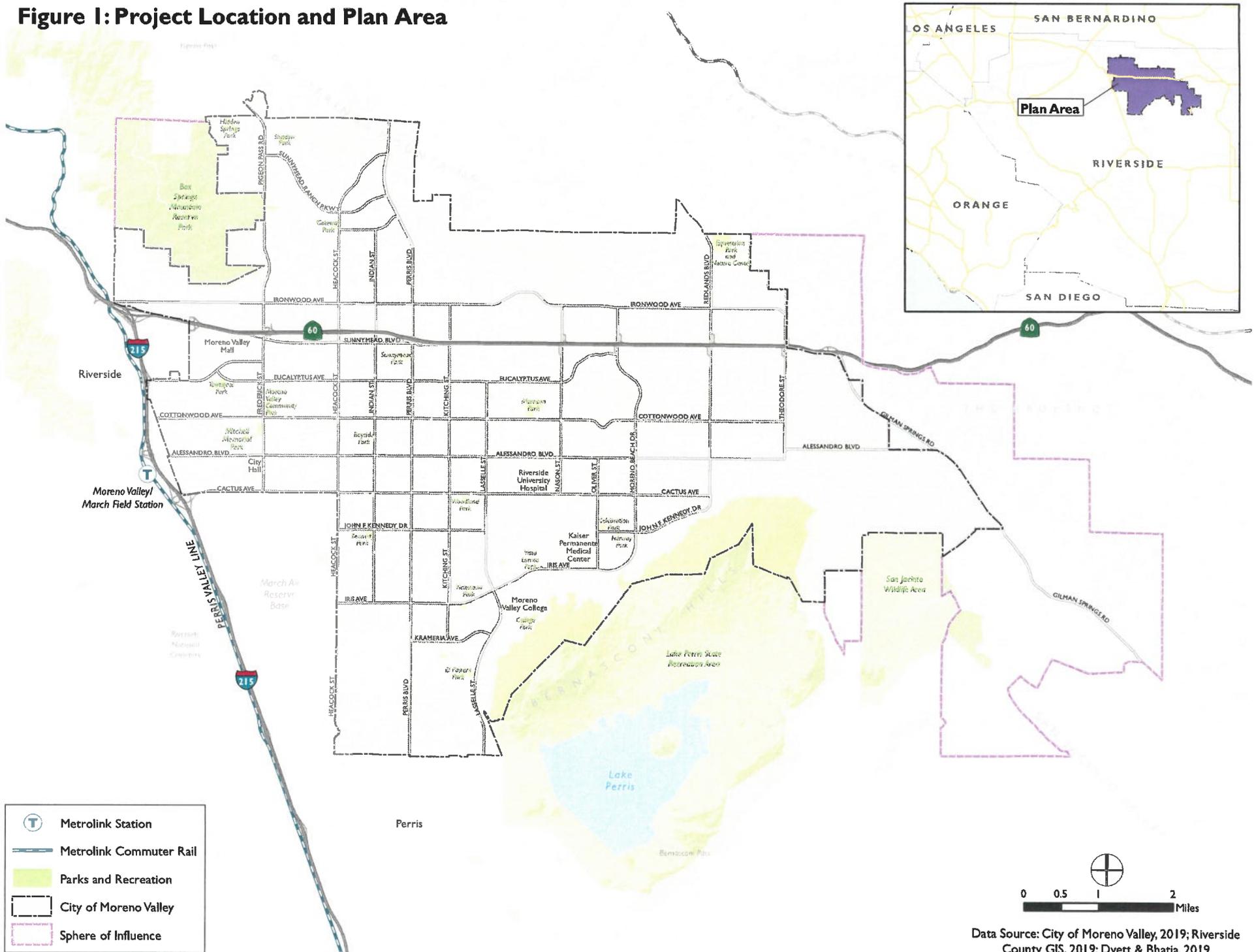
Respectfully,

A handwritten signature in cursive script, appearing to read "Chris Ormsby".

Chris Ormsby, AICP  
Senior Planner

Attachment: Figure 1 – Project Location  
cc: Project File

**Figure I: Project Location and Plan Area**



RECEIVED

MAY 27 2020

CITY OF MORENO VALLEY  
Planning Division



May 19, 2020

Attn: Chris Ormsby, AICP, Senior Planner  
City of Moreno Valley  
Community Development Department, Planning Division  
P.O. Box 88005  
Moreno Valley, CA 92552-0805

**RE: AB 52 Consultation; MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update**

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,

A handwritten signature in black ink, appearing to read "Joe", with a long horizontal line extending to the right.

Joseph Ontiveros, Tribal Historic Preservation Officer  
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](mailto:jontiveros@soboba-nsn.gov)

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the City of Moreno Valley. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

May 19, 2020

Attn: Chris Ormsby, AICP, Senior Planner  
City of Moreno Valley  
Community Development Department, Planning Division  
P.O. Box 88005  
Moreno Valley, CA 92552-0805



**RE: SB 18 Consultation; MoVal 2040 – City of Moreno Valley Comprehensive General Plan Update**

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. This project location is in proximity to known sites, is a shared use area that was used in ongoing trade between the tribes, and is considered to be culturally sensitive by the people of Soboba.

Soboba Band of Luiseño Indians is requesting the following:

1. **Government to Government** consultation in accordance to SB18. Including the transfer of information to the Soboba Band of Luiseño Indians regarding the progress of this project should be done as soon as new developments occur.
2. Soboba Band of Luiseño Indians continue to be a consulting tribal entity for this project.
3. Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason the Soboba Band of Luiseño Indians requests that Native American Monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department to be present during any ground disturbing proceedings. Including surveys and archaeological testing.
4. Request that proper procedures be taken and requests of the tribe be honored (Please see the attachment)

Sincerely,

A handwritten signature in black ink, appearing to read "JOE", with a long horizontal line extending to the right.

Joseph Ontiveros, Tribal Historic Preservation Officer  
Soboba Cultural Resource Department  
P.O. Box 487  
San Jacinto, CA 92581  
Phone (951) 654-5544 ext. 4137  
Cell (951) 663-5279  
[jontiveros@soboba-nsn.gov](mailto:jontiveros@soboba-nsn.gov)

**Cultural Items (Artifacts).** Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer should agree to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

The Developer should waive any and all claims to ownership of Native American ceremonial and cultural artifacts that may be found on the Project site. Upon completion of authorized and mandatory archeological analysis, the Developer should return said artifacts to the Soboba Band within a reasonable time period agreed to by the Parties and not to exceed (30) days from the initial recovery of the items.

**Treatment and Disposition of Remains**

A. The Soboba Band shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity.

B. The Soboba Band, as MLD, shall complete its inspection within twenty-four (24) hours of receiving notification from either the Developer or the NAHC, as required by California Public Resources Code § 5097.98 (a). The Parties agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes.

C. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The Soboba Band, as the MLD in consultation with the Developer, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains.

D. All parties are aware that the Soboba Band may wish to rebury the human remains and associated ceremonial and cultural items (artifacts) on or near, the site of their discovery, in an area that shall not be subject to future subsurface disturbances. The Developer should accommodate on-site reburial in a location mutually agreed upon by the Parties.

E. The term "human remains" encompasses more than human bones because the Soboba Band's traditions periodically necessitated the ceremonial burning of human remains. Grave goods are those artifacts associated with any human remains. These items, and other funerary remnants and their ashes are to be treated in the same manner as human bone fragments or bones that remain intact

**Coordination with County Coroner's Office.** The Lead Agencies and the Developer should immediately contact both the Coroner and the Soboba Band in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c).

**Non-Disclosure of Location Reburials.** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (n). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer agrees to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the City of Moreno Valley. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

**From:** [Quechan Historic Preservation](#)  
**To:** [Chris Ormsby](#)  
**Subject:** MoVal 2040 City of Moreno Valley Comprehensive General Plan Updat/ Tribal Cultural Resources Pusuant to SB 18  
**Date:** Monday, May 4, 2020 9:12:32 AM

---

**Warning: External Email – Watch for Email Red Flags!**

This email serves to notify you that we have no comments on the above referenced project. We defer to the more local Tribes and support their decisions on this project.

H. Jill McCormick, M.A.  
Historic Preservation Officer  
Ft. Yuma Quechan Tribe  
P.O. Box 1899  
Yuma, AZ 85366  
Office: 760-572-2423  
Cell: 928-261-0254



Virus-free. [www.avast.com](http://www.avast.com)

**From:** [Jessica Mauck](#)  
**To:** [Chris Ormsby](#)  
**Subject:** Moreno Valley General Plan Update 2020  
**Date:** Thursday, May 28, 2020 8:02:28 PM  
**Attachments:** [image563cc6.PNG](#)  
[SMBMI\\_Serrano\\_Territory\\_GPUupdate\\_Moreno\\_Valley.pdf](#)  
[SKM\\_C45820042913461.pdf](#)  
[SKM\\_C45820042913471.pdf](#)

---

**Warning: External Email – Watch for Email Red Flags!**

Hello [LEAD AGENCY POC],

Hi Chris,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on 29 April 2020, pursuant to SB18, CEQA (as amended, 2015), and CA PRC 21080.3.1 (attached). A portion of the proposed project area exists within a sensitive portion of Serrano ancestral territory and, therefore, SMBMI elects to consult on this project under both SB18 and CEQA.

I have attached a map showing the overlap of the GPU area with Serrano ancestral territory, and the cultural areas of significance to the north of the territory boundary are where SMBMI's concerns will be focused. I realize the nature of the project may mean that the associated technical reports are more broad in scope, but please provide the following, as available and required, for the Tribe's review:

- Cultural report
- Soil/geological study
- Proposed project/zoning maps

The provision of this information will assist the San Manuel Band of Mission Indians moving forward in project review and implementation. If you should have any questions with regard to this matter, please do not hesitate to contact me at your convenience, as I will be your Point of Contact (POC) for SMBMI with respect to this project.

Once again, the San Manuel Band of Mission Indians appreciates the opportunity to comment on the proposed project.

Respectfully,

**Jessica Mauck**

DIRECTOR OF CULTURAL RESOURCES MANAGEMENT

O: (909) 864-8933 x3249

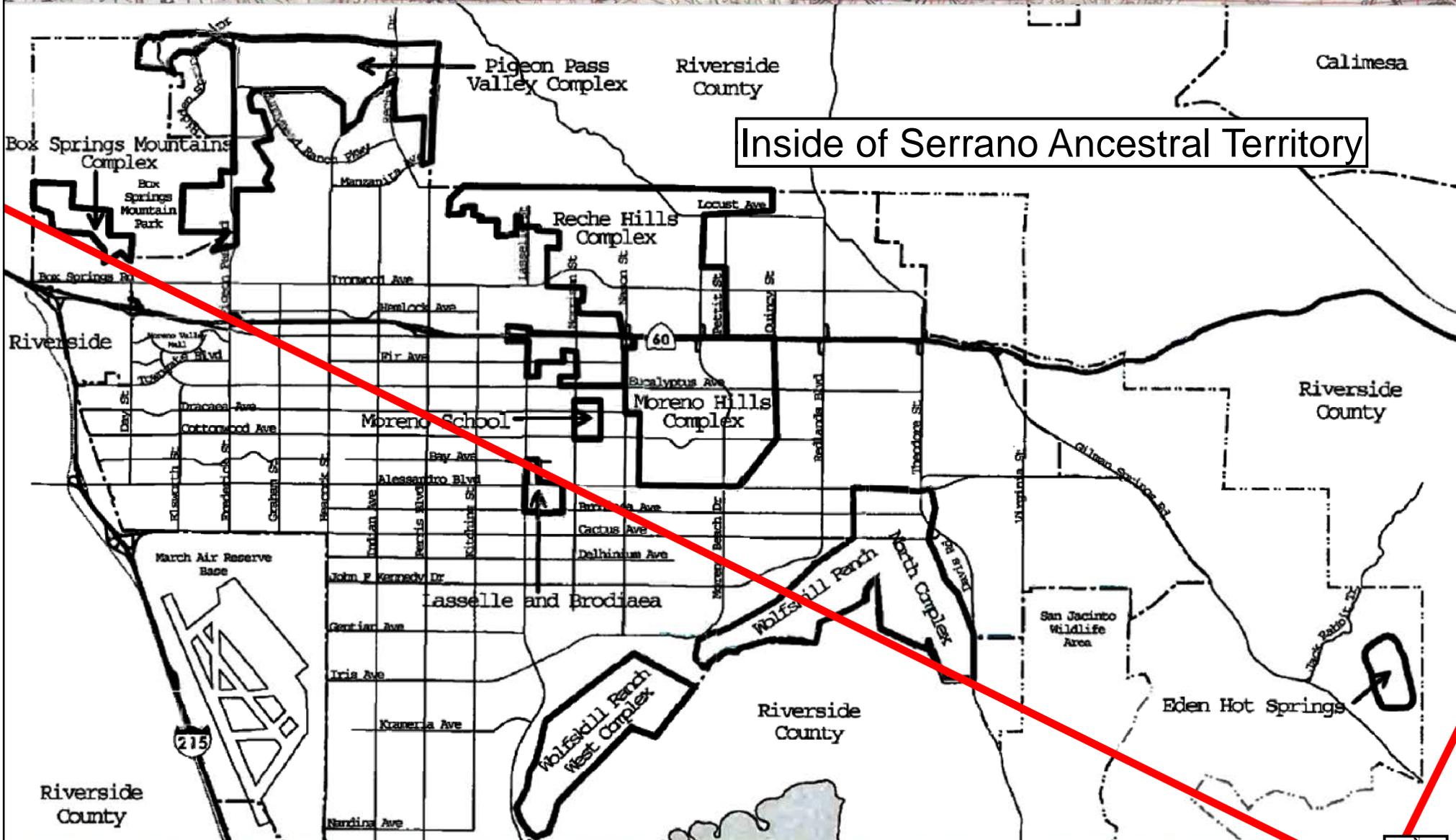
M: (909) 725-9054

26569 Community Center Dr Highland California 92346

**SAN MANUEL**  
BAND OF  MISSION INDIANS

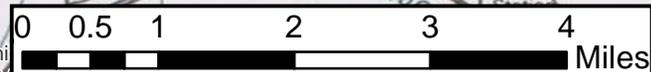
THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You

# Serrano Ancestral Territory Overlap with Moreno Valley GP Update Area



Inside of Serrano Ancestral Territory

Outside of Serrano Ancestral Territory



## Appendix D

## **Noise Measurement Data**

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.002  
 Serial Number 3828  
 Model SoundExpert™ LxT  
 Firmware Version 2.302  
 User Jesse Fleming  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/18 10:45:21  
 Stop 2019/12/18 11:03:11  
 Duration 0:17:50.4  
 Run Time 0:17:50.4  
 Pause 0:00:00.0  
 Pre Calibration 2019/12/18 10:05:15  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 121.8 dB

	A	C	Z
Under Range Peak	78.1	75.1	80.1 dB
Under Range Limit	27.1	25.8	33.1 dB
Noise Floor	16.8	16.7	22.8 dB

Results

LAeq 60.1 dB  
 LAE 90.4 dB  
 EA 120.881 µPa²h  
 LApeak (max) 2019/12/18 10:47:22 91.0 dB  
 LASmax 2019/12/18 10:47:23 78.7 dB  
 LASmin 2019/12/18 10:48:21 54.5 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
	60.1	60.1	-99.9	60.1	60.1	-99.9	-99.9
LCeq	72.8 dB						
LAeq	60.1 dB						
LCeq - LAeq	12.7 dB						
LAleq	61.4 dB						
LAeq	60.1 dB						
LAleq - LAeq	1.3 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 61.1 dB  
 LAS10.00 59.7 dB  
 LAS33.30 58.3 dB  
 LAS50.00 57.8 dB  
 LAS66.60 57.4 dB  
 LAS90.00 56.5 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.003  
 Serial Number 3828  
 Model SoundExpert™ LxT  
 Firmware Version 2.302  
 User Jesse Fleming  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/18 11:16:51  
 Stop 2019/12/18 11:34:01  
 Duration 0:17:03.1  
 Run Time 0:17:03.1  
 Pause 0:00:00.0  
 Pre Calibration 2019/12/18 10:05:15  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 121.8 dB  

	A	C	Z
Under Range Peak	78.1	75.1	80.1 dB
Under Range Limit	27.1	25.8	33.1 dB
Noise Floor	16.8	16.7	22.8 dB

Results

LAeq 65.5 dB  
 LAE 95.6 dB  
 EA 402.358 µPa²h  
 LApeak (max) 2019/12/18 11:28:28 92.4 dB  
 LASmax 2019/12/18 11:28:29 77.6 dB  
 LASmin 2019/12/18 11:17:39 58.3 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Ldn	65.5	65.5	-99.9	65.5	65.5	-99.9	-99.9
LCeq	75.5 dB						
LAeq	65.5 dB						
LCeq - LAeq	10.0 dB						
LAeq	66.5 dB						
LAeq	65.5 dB						
LAeq - LAeq	1.1 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 68.5 dB  
 LAS10.00 67.5 dB  
 LAS33.30 65.6 dB  
 LAS50.00 64.6 dB  
 LAS66.60 63.6 dB  
 LAS90.00 62.1 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.004  
 Serial Number 3828  
 Model SoundExpert™ LxT  
 Firmware Version 2.302  
 User Jesse Fleming  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/18 11:39:45  
 Stop 2019/12/18 11:57:25  
 Duration 0:17:40.1  
 Run Time 0:17:40.1  
 Pause 0:00:00.0  
 Pre Calibration 2019/12/18 10:05:15  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 121.8 dB  

	A	C	Z
Under Range Peak	78.1	75.1	80.1 dB
Under Range Limit	27.1	25.8	33.1 dB
Noise Floor	16.8	16.7	22.8 dB

Results

LAeq 67.7 dB  
 LAE 98.0 dB  
 EA 694.689 µPa²h  
 LApeak (max) 2019/12/18 11:50:39 94.0 dB  
 LASmax 2019/12/18 11:50:39 78.7 dB  
 LASmin 2019/12/18 11:49:08 49.3 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Ldn	67.7	67.7	-99.9	67.7	67.7	-99.9	-99.9
LCeq	75.9 dB						
LAeq	67.7 dB						
LCeq - LAeq	8.2 dB						
LAeq	68.8 dB						
LAeq	67.7 dB						
LAeq - LAeq	1.1 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 73.0 dB  
 LAS10.00 71.6 dB  
 LAS33.30 68.0 dB  
 LAS50.00 65.0 dB  
 LAS66.60 62.1 dB  
 LAS90.00 56.7 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.005  
Serial Number 3828  
Model SoundExpert™ LxT  
Firmware Version 2.302  
User Jesse Fleming  
Location Moreno Valley GPU  
Job Description 9504.0

Note

Measurement Description

Start 2019/12/18 12:11:22  
Stop 2019/12/18 12:28:53  
Duration 0:17:31.2  
Run Time 0:17:31.2  
Pause 0:00:00.0

Pre Calibration 2019/12/18 10:05:15  
Post Calibration None  
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRMLxT1L  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum At Lmax  
Overload 121.8 dB

	A	C	Z
Under Range Peak	78.1	75.1	80.1 dB
Under Range Limit	27.1	25.8	33.1 dB
Noise Floor	16.8	16.7	22.8 dB

Results

LAeq 64.1 dB  
LAE 94.3 dB  
EA 299.321 µPa²h  
LApeak (max) 2019/12/18 12:27:54 96.0 dB  
LASmax 2019/12/18 12:27:54 75.4 dB  
LASmin 2019/12/18 12:25:25 48.8 dB  
SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
LCEq	64.1	64.1	-99.9	64.1	64.1	-99.9	-99.9
LAeq	72.5 dB						
LAeq	64.1 dB						
LCeq - LAeq	8.4 dB						
LAeq	65.6 dB						
LAeq	64.1 dB						
LAeq - LAeq	1.5 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 69.5 dB  
LAS10.00 68.2 dB  
LAS33.30 63.7 dB  
LAS50.00 61.4 dB  
LAS66.60 58.8 dB  
LAS90.00 53.2 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.006  
 Serial Number 3828  
 Model SoundExpert™ LxT  
 Firmware Version 2.302  
 User Jesse Fleming  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/18 13:14:23  
 Stop 2019/12/18 13:30:19  
 Duration 0:15:56.0  
 Run Time 0:15:56.0  
 Pause 0:00:00.0  
 Pre Calibration 2019/12/18 10:05:15  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 121.8 dB  
 Under Range Peak **A** **C** **Z**  
 Under Range Limit **78.1** 75.1 80.1 dB  
 Noise Floor **27.1** 25.8 33.1 dB  
 16.8 16.7 22.8 dB

Results

LAeq 65.9 dB  
 LAE 95.7 dB  
 EA 413.300 µPa²h  
 LApeak (max) 2019/12/18 13:14:29 94.6 dB  
 LASmax 2019/12/18 13:29:20 76.7 dB  
 LASmin 2019/12/18 13:15:18 41.0 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
	65.9	65.9	-99.9	65.9	65.9	-99.9	-99.9
LCeq	72.8 dB						
LAeq	65.9 dB						
LCeq - LAeq	6.9 dB						
LAeq	67.4 dB						
LAeq	65.9 dB						
LAeq - LAeq	1.5 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 71.1 dB  
 LAS10.00 70.0 dB  
 LAS33.30 66.4 dB  
 LAS50.00 63.3 dB  
 LAS66.60 57.7 dB  
 LAS90.00 47.6 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.007  
 Serial Number 3828  
 Model SoundExpert™ LxT  
 Firmware Version 2.302  
 User Jesse Fleming  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/18 13:35:52  
 Stop 2019/12/18 13:53:02  
 Duration 0:17:09.1  
 Run Time 0:17:09.1  
 Pause 0:00:00.0  
 Pre Calibration 2019/12/18 10:05:15  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 121.8 dB  
 Under Range Peak **A** **C** **Z**  
 Under Range Limit **78.1** 75.1 80.1 dB  
 Noise Floor **27.1** 25.8 33.1 dB  
 16.8 16.7 22.8 dB

Results

LAeq 66.6 dB  
 LAE 96.7 dB  
 EA 523.367 µPa²h  
 LApeak (max) 2019/12/18 13:48:46 97.1 dB  
 LASmax 2019/12/18 13:48:46 80.1 dB  
 LASmin 2019/12/18 13:45:37 39.7 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
	66.6	66.6	-99.9	66.6	66.6	-99.9	-99.9
LCeq	73.6 dB						
LAeq	66.6 dB						
LCeq - LAeq	7.0 dB						
LAeq	69.3 dB						
LAeq	66.6 dB						
LAeq - LAeq	2.7 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 71.4 dB  
 LAS10.00 70.3 dB  
 LAS33.30 67.1 dB  
 LAS50.00 64.2 dB  
 LAS66.60 60.1 dB  
 LAS90.00 48.1 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.002  
 Serial Number 3829  
 Model SoundExpert™ LxT  
 Firmware Version 2.301  
 User Nate Yerka  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/19 10:45:59  
 Stop 2019/12/19 11:01:16  
 Duration 0:15:16.8  
 Run Time 0:10:00.9  
 Pause 0:05:15.9  
 Pre Calibration 2019/12/19 10:38:29  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 122.0 dB  
 Under Range Peak **A** **C** **Z**  
 Under Range Limit **78.2** 75.2 80.2 dB  
 Noise Floor **26.1** 25.3 32.1 dB  
 16.3 16.1 22.0 dB

Results

LAeq 74.8 dB  
 LAE 102.5 dB  
 EA 1.998 mPa²h  
 LApeak (max) 2019/12/19 10:51:30 99.0 dB  
 LASmax 2019/12/19 10:52:22 85.5 dB  
 LASmin 2019/12/19 10:55:42 62.3 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 1 2.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
LCEq	74.8	74.8	-99.9	74.8	74.8	-99.9	-99.9
LAeq	80.8 dB						
LAeq	74.8 dB						
LCEq - LAeq	6.0 dB						
LAeq	76.0 dB						
LAeq	74.8 dB						
LAeq - LAeq	1.2 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 78.9 dB  
 LAS10.00 77.6 dB  
 LAS33.30 74.9 dB  
 LAS50.00 73.6 dB  
 LAS66.60 72.3 dB  
 LAS90.00 68.3 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.004  
 Serial Number 3829  
 Model SoundExpert™ LxT  
 Firmware Version 2.301  
 User Nate Yerka  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/19 12:07:03  
 Stop 2019/12/19 12:23:21  
 Duration 0:16:18.4  
 Run Time 0:15:01.5  
 Pause 0:01:16.9  
 Pre Calibration 2019/12/19 10:38:29  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 122.0 dB  

	A	C	Z
Under Range Peak	78.2	75.2	80.2 dB
Under Range Limit	26.1	25.3	32.1 dB
Noise Floor	16.3	16.1	22.0 dB

Results

LAeq 67.4 dB  
 LAE 97.0 dB  
 EA 555.709 µPa²h  
 LApeak (max) 2019/12/19 12:22:01 96.5 dB  
 LASmax 2019/12/19 12:22:04 85.6 dB  
 LASmin 2019/12/19 12:20:50 45.6 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration)	1	0.5 s
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Ldn	67.4	67.4	-99.9	67.4	67.4	-99.9	-99.9
LCeq	77.2 dB						
LAeq	67.4 dB						
LCeq - LAeq	9.7 dB						
LAeq	69.4 dB						
LAeq	67.4 dB						
LAeq - LAeq	2.0 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 72.2 dB  
 LAS10.00 69.9 dB  
 LAS33.30 66.4 dB  
 LAS50.00 64.1 dB  
 LAS66.60 61.8 dB  
 LAS90.00 56.9 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.006  
 Serial Number 3829  
 Model SoundExpert™ LxT  
 Firmware Version 2.301  
 User Nate Yerka  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/19 13:09:00  
 Stop 2019/12/19 13:24:06  
 Duration 0:15:05.8  
 Run Time 0:15:02.3  
 Pause 0:00:03.5  
 Pre Calibration 2019/12/19 10:38:29  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 122.0 dB  
 Under Range Peak **A** **C** **Z**  
 Under Range Limit **78.2** 75.2 80.2 dB  
 Noise Floor **26.1** 25.3 32.1 dB  
 16.3 16.1 22.0 dB

Results

LAeq 71.3 dB  
 LAE 100.8 dB  
 EA 1.340 mPa²h  
 LApeak (max) 2019/12/19 13:16:16 108.1 dB  
 LASmax 2019/12/19 13:16:32 79.2 dB  
 LASmin 2019/12/19 13:14:12 63.2 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Ldn	71.3	71.3	-99.9	71.3	71.3	-99.9	-99.9
LCeq	79.7 dB						
LAeq	71.3 dB						
LCeq - LAeq	8.4 dB						
LAeq	72.2 dB						
LAeq	71.3 dB						
LAeq - LAeq	0.9 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 75.0 dB  
 LAS10.00 74.1 dB  
 LAS33.30 71.6 dB  
 LAS50.00 70.3 dB  
 LAS66.60 69.1 dB  
 LAS90.00 67.0 dB

9504 Moreno Valley General Plan Update  
Noise Measurement Data

Summary

Filename LxT\_Data.008  
 Serial Number 3829  
 Model SoundExpert™ LxT  
 Firmware Version 2.301  
 User Nate Yerka  
 Location Moreno Valley GPU  
 Job Description 9504.0  
 Note  
 Measurement Description  
 Start 2019/12/19 13:55:00  
 Stop 2019/12/19 14:10:07  
 Duration 0:15:07.0  
 Run Time 0:15:00.9  
 Pause 0:00:06.1  
 Pre Calibration 2019/12/19 10:38:29  
 Post Calibration None  
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting  
 Peak Weight A Weighting  
 Detector Slow  
 Preamp PRMLxT1L  
 Microphone Correction Off  
 Integration Method Linear  
 OBA Range Normal  
 OBA Bandwidth 1/1 and 1/3  
 OBA Freq. Weighting A Weighting  
 OBA Max Spectrum At Lmax  
 Overload 122.0 dB  
 Under Range Peak **A** **C** **Z**  
 Under Range Limit **78.2** 75.2 80.2 dB  
 Noise Floor **26.1** 25.3 32.1 dB  
 16.3 16.1 22.0 dB

Results

LAeq 67.2 dB  
 LAE 96.8 dB  
 EA 529.114 µPa²h  
 LApeak (max) 2019/12/19 14:02:34 107.5 dB  
 LASmax 2019/12/19 14:02:35 91.7 dB  
 LASmin 2019/12/19 13:58:58 52.8 dB  
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 1 3.8 s  
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s  
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Ldn	67.2	67.2	-99.9	67.2	67.2	-99.9	-99.9
LCeq	75.8 dB						
LAeq	67.2 dB						
LCeq - LAeq	8.5 dB						
LAeq	70.7 dB						
LAeq	67.2 dB						
LAeq - LAeq	3.5 dB						
# Overloads	0						
Overload Duration	0.0 s						
# OBA Overloads	0						
OBA Overload Duration	0.0 s						

Statistics

LAS5.00 68.0 dB  
 LAS10.00 66.1 dB  
 LAS33.30 63.2 dB  
 LAS50.00 61.3 dB  
 LAS66.60 59.1 dB  
 LAS90.00 55.8 dB

# **FHWA RD-77-108 Traffic Noise Prediction Model**

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Existing

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	3490	CACTUS AVE	40,600	50	50	96.03	1.66	2.31	78.00	4.00	18.00	
2	7726	DAY ST	7,077	40	50	97.32	1.67	1.01	78.00	4.00	18.00	
3	7889	ENCELIA AVE	0	35	50		0.00	0.00	78.00	4.00	18.00	
4	9102	PIGEON PASS RD	23,627	40	50	98.29	1.28	0.43	78.00	4.00	18.00	
5	11519	CACTUS AVE	40,600	50	50	94.79	2.05	3.16	78.00	4.00	18.00	
6	11520	CACTUS AVE	40,600	50	50	94.23	2.16	3.61	78.00	4.00	18.00	
7	11522	PIGEON PASS RD	24,112	40	50	98.24	1.29	0.47	78.00	4.00	18.00	
8	11523	FREDERICK ST	25,610	40	50	98.14	1.32	0.54	78.00	4.00	18.00	
9	11524	SUNNYMEAD BLVD	5,003	35	50	98.40	1.06	0.54	78.00	4.00	18.00	
10	11525	FREDERICK ST	24,306	40	50	98.21	1.21	0.58	78.00	4.00	18.00	
11	11526	HEMLOCK AVE	7,245	35	50	98.31	1.44	0.25	78.00	4.00	18.00	
12	11529	E ALESSANDRO BLVD	36,423	45	50	95.57	1.87	2.56	78.00	4.00	18.00	
13	11530	E ALESSANDRO BLVD	36,100	45	50	95.60	1.85	2.55	78.00	4.00	18.00	
14	11532	DAY ST	18,647	40	50	97.33	1.61	1.06	78.00	4.00	18.00	
15	11533	DAY ST	13,311	40	50	97.30	1.68	1.02	78.00	4.00	18.00	
16	11534	DAY ST	12,634	40	50	97.69	1.48	0.83	78.00	4.00	18.00	
17	11535	DAY ST	7,295	40	50	98.55	1.15	0.30	78.00	4.00	18.00	
18	11543	NASON ST	8,698	40	50	97.93	1.43	0.64	78.00	4.00	18.00	
19	11544	NASON ST	3,346	40	50	98.76	1.04	0.20	78.00	4.00	18.00	
20	11545	NASON ST	11,185	40	50	97.45	1.62	0.93	78.00	4.00	18.00	
21	11547	SUNNYMEAD BLVD	12,989	40	50	97.91	1.26	0.83	78.00	4.00	18.00	
22	11548	SUNNYMEAD BLVD	9,258	40	50	98.55	1.11	0.34	78.00	4.00	18.00	
23	11550	SUNNYMEAD BLVD	16,510	35	50	97.58	1.43	0.99	78.00	4.00	18.00	
24	11551	SUNNYMEAD BLVD	2,469	35	50	98.59	1.11	0.30	78.00	4.00	18.00	
25	11594	THEODORE AVE	1,100	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
26	11595	THEODORE AVE	1,138	50	50	93.50	4.65	1.85	78.00	4.00	18.00	
27	11598	THEODORE AVE	1,968	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
28	11618	MORENO BEACH DR	9,147	45	50	97.72	1.49	0.79	78.00	4.00	18.00	
29	11619	MORENO BEACH DR	6,682	45	50	97.83	1.57	0.60	78.00	4.00	18.00	
30	11620	MORENO BEACH DR	12,212	45	50	97.56	1.50	0.94	78.00	4.00	18.00	
31	11628	REDLANDS BLVD	11,100	50	50	96.07	2.66	1.27	78.00	4.00	18.00	
32	11629	REDLANDS BLVD	12,733	50	50	96.47	2.47	1.06	78.00	4.00	18.00	
33	11630	REDLANDS BLVD	9,200	50	50	96.05	2.61	1.34	78.00	4.00	18.00	
34	27569	ALESSANDRO BLVD	3,639	40	50	97.26	1.79	0.95	78.00	4.00	18.00	
35	27588	IRONWOOD AVE	44	55	50	97.15	2.72	0.13	78.00	4.00	18.00	
36	27732	MORENO BEACH DR	9,582	50	50	98.32	1.03	0.65	78.00	4.00	18.00	
37	27733	MORENO BEACH DR	9,595	50	50	98.21	1.13	0.66	78.00	4.00	18.00	
38	27734	CACTUS AVE	8,100	50	50	98.74	1.04	0.22	78.00	4.00	18.00	
39	27735	MORENO BEACH DR	14,799	50	50	96.62	2.02	1.36	78.00	4.00	18.00	
40	27736	JOHN F KENNEDY DR	9,805	45	50	95.95	2.53	1.52	78.00	4.00	18.00	
41	27783	MORENO BEACH DR	9,214	50	50	98.20	1.12	0.68	78.00	4.00	18.00	
42	27784	ALESSANDRO BLVD	2,819	40	50	98.35	1.37	0.28	78.00	4.00	18.00	
43	27785	ALESSANDRO BLVD	6,942	50	50	98.44	1.13	0.43	78.00	4.00	18.00	
44	27786	MORENO BEACH DR	8,071	45	50	98.07	1.17	0.76	78.00	4.00	18.00	
45	27787	COTTONWOOD AVE	4,005	45	50	98.93	0.90	0.17	78.00	4.00	18.00	
46	27788	COTTONWOOD AVE	1,191	40	50	98.40	1.12	0.48	78.00	4.00	18.00	
47	27805	IRONWOOD AVE	1,830	55	50	99.13	0.60	0.27	78.00	4.00	18.00	
48	27806	IRONWOOD AVE	3,698	55	50	98.27	1.56	0.17	78.00	4.00	18.00	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

49	27862	REDLANDS BLVD	13,268	50	50	96.43	2.52	1.05	78.00	4.00	18.00
50	27863	REDLANDS BLVD	12,550	50	50	96.46	2.47	1.07	78.00	4.00	18.00
51	27864	REDLANDS BLVD	8,400	50	50	95.97	2.63	1.40	78.00	4.00	18.00
52	27865	REDLANDS BLVD	8,400	50	50	95.98	2.56	1.46	78.00	4.00	18.00
53	28114	STREET F	0	45	50		0.00	0.00	78.00	4.00	18.00
54	28136	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
55	28170	IRONWOOD AVE	2,753	45	50	98.75	1.14	0.11	78.00	4.00	18.00
56	28181	NASON ST	8,431	40	50	97.97	1.40	0.63	78.00	4.00	18.00
57	28182	EUCALYPTUS AVE	6,080	40	50	98.71	1.16	0.13	78.00	4.00	18.00
58	28183	NASON ST	7,928	40	50	98.12	1.30	0.58	78.00	4.00	18.00
59	28184	COTTONWOOD AVE	1,420	45	50	98.79	1.10	0.11	78.00	4.00	18.00
60	28191	ALESSANDRO BLVD	7,628	50	50	97.64	1.81	0.55	78.00	4.00	18.00
61	28198	LASSELLE ST	4,548	40	50	98.62	1.11	0.27	78.00	4.00	18.00
62	28199	LASSELLE ST	4,378	40	50	98.54	1.18	0.28	78.00	4.00	18.00
63	28200	COTTONWOOD AVE	1,537	45	50	98.79	1.17	0.04	78.00	4.00	18.00
64	28203	LASSELLE ST	11,191	45	50	98.67	0.96	0.37	78.00	4.00	18.00
65	28204	LASSELLE ST	12,370	45	50	98.89	0.89	0.22	78.00	4.00	18.00
66	28205	GENTIAN AVE	5,507	45	50	98.80	1.12	0.08	78.00	4.00	18.00
67	28206	EUCALYPTUS AVE	7,778	40	50	98.68	1.13	0.19	78.00	4.00	18.00
68	28207	EUCALYPTUS AVE	9,475	40	50	98.51	1.16	0.33	78.00	4.00	18.00
69	28208	LASSELLE ST	5,728	45	50	98.43	1.37	0.20	78.00	4.00	18.00
70	28209	ALESSANDRO BLVD	6,748	45	50	97.95	1.55	0.50	78.00	4.00	18.00
71	28210	LASSELLE ST	9,655	45	50	98.44	1.34	0.22	78.00	4.00	18.00
72	28211	JOHN F KENNEDY DR	8,975	45	50	98.64	0.95	0.41	78.00	4.00	18.00
73	28212	COTTONWOOD AVE	1,535	45	50	98.74	1.19	0.07	78.00	4.00	18.00
74	28213	IRONWOOD AVE	8,284	40	50	98.16	1.46	0.38	78.00	4.00	18.00
75	28254	LASSELLE ST	23,074	45	50	98.25	1.17	0.58	78.00	4.00	18.00
76	28255	IRIS AVE	6,739	50	50	96.88	2.05	1.07	78.00	4.00	18.00
77	28256	KRAMERIA AVE	1,619	40	50	98.76	0.97	0.27	78.00	4.00	18.00
78	28283	LAKE PERRIS DR	3,800	40	50	97.81	1.57	0.62	78.00	4.00	18.00
79	28305	PERRIS BLVD	8,296	50	50	98.17	1.36	0.47	78.00	4.00	18.00
80	28306	MANZANITA AVE	547	40	50	99.02	0.82	0.16	78.00	4.00	18.00
81	28307	PERRIS BLVD	8,147	50	50	98.19	1.34	0.47	78.00	4.00	18.00
82	28320	PERRIS BLVD	8,858	50	50	98.29	1.29	0.42	78.00	4.00	18.00
83	28334	MANZANITA AVE	415	40	50	98.71	1.08	0.21	78.00	4.00	18.00
84	28335	SUNNYMEAD RANCH PKY	5,416	40	50	98.38	1.22	0.40	78.00	4.00	18.00
85	28342	PERRIS BLVD	29,726	40	50	97.29	1.47	1.24	78.00	4.00	18.00
86	28343	PERRIS BLVD	27,348	40	50	97.15	1.50	1.35	78.00	4.00	18.00
87	28344	EUCALYPTUS AVE	7,455	40	50	98.75	1.11	0.14	78.00	4.00	18.00
88	28345	EUCALYPTUS AVE	5,525	40	50	99.00	0.91	0.09	78.00	4.00	18.00
89	28347	N PERRIS BLVD	15,265	45	50	96.74	1.93	1.33	78.00	4.00	18.00
90	28348	NANDINA AVE	2,676	45	50	94.16	3.31	2.53	78.00	4.00	18.00
91	28349	PERRIS BLVD	26,693	40	50	97.22	1.48	1.30	78.00	4.00	18.00
92	28350	COTTONWOOD AVE	4,257	45	50	98.65	1.07	0.28	78.00	4.00	18.00
93	28351	COTTONWOOD AVE	3,088	45	50	98.66	1.18	0.16	78.00	4.00	18.00
94	28354	PERRIS BLVD	28,457	40	50	97.13	1.51	1.36	78.00	4.00	18.00
95	28360	PERRIS BLVD	19,456	45	50	96.26	1.99	1.75	78.00	4.00	18.00
96	28361	KRAMERIA AVE	8,515	40	50	96.26	1.91	1.83	78.00	4.00	18.00
97	28362	PERRIS BLVD	32,244	40	50	97.56	1.43	1.01	78.00	4.00	18.00
98	28363	PERRIS BLVD	24,569	40	50	98.29	1.25	0.46	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

99	28364	PERRIS BLVD	14,295	45	50	96.33	1.89	1.78	78.00	4.00	18.00
100	28365	IRIS AVE	7,445	50	50	97.09	1.87	1.04	78.00	4.00	18.00
101	28366	IRIS AVE	6,278	50	50	96.42	1.96	1.62	78.00	4.00	18.00
102	28373	COTTONWOOD AVE	1,191	40	50	98.40	1.12	0.48	78.00	4.00	18.00
103	28383	PERRIS BLVD	19,420	40	50	96.74	1.62	1.64	78.00	4.00	18.00
104	28384	JOHN F KENNEDY DR	13,341	45	50	98.64	0.97	0.39	78.00	4.00	18.00
105	28385	JOHN F KENNEDY DR	12,085	45	50	98.68	1.03	0.29	78.00	4.00	18.00
106	28386	PERRIS BLVD	20,554	40	50	96.86	1.56	1.58	78.00	4.00	18.00
107	28387	CACTUS AVE	20,100	40	50	98.72	1.13	0.15	78.00	4.00	18.00
108	28388	CACTUS AVE	20,100	40	50	98.74	1.10	0.16	78.00	4.00	18.00
109	28389	ALESSANDRO BLVD	11,980	45	50	98.14	1.43	0.43	78.00	4.00	18.00
110	28390	ALESSANDRO BLVD	10,976	45	50	98.42	1.24	0.34	78.00	4.00	18.00
111	28393	IRONWOOD AVE	4,498	40	50	98.46	1.11	0.43	78.00	4.00	18.00
112	28396	KITCHING ST	2,199	45	50	98.34	1.53	0.13	78.00	4.00	18.00
113	28397	IRIS AVE	6,739	50	50	96.88	2.05	1.07	78.00	4.00	18.00
114	28399	KITCHING ST	3,459	40	50	98.67	1.29	0.04	78.00	4.00	18.00
115	28400	ALESSANDRO BLVD	10,976	45	50	98.42	1.24	0.34	78.00	4.00	18.00
116	28401	KITCHING ST	3,386	40	50	98.67	1.21	0.12	78.00	4.00	18.00
117	28402	KITCHING ST	648	40	50	98.76	1.02	0.22	78.00	4.00	18.00
118	28424	KITCHING ST	2,540	40	50	98.98	0.89	0.13	78.00	4.00	18.00
119	28425	KITCHING ST	1,825	40	50	99.05	0.88	0.07	78.00	4.00	18.00
120	28426	COTTONWOOD AVE	2,698	45	50	98.88	1.04	0.08	78.00	4.00	18.00
121	28446	HEACOCK ST	15,909	40	50	98.09	1.31	0.60	78.00	4.00	18.00
122	28447	HEACOCK ST	11,840	40	50	97.93	1.38	0.69	78.00	4.00	18.00
123	28448	COTTONWOOD AVE	4,967	45	50	98.62	1.14	0.24	78.00	4.00	18.00
124	28449	COTTONWOOD AVE	5,803	45	50	98.50	0.94	0.56	78.00	4.00	18.00
125	28450	HEACOCK ST	15,596	45	50	98.35	1.27	0.38	78.00	4.00	18.00
126	28451	IRONWOOD AVE	5,705	40	50	98.47	1.14	0.39	78.00	4.00	18.00
127	28452	IRONWOOD AVE	4,391	45	50	98.75	1.14	0.11	78.00	4.00	18.00
128	28453	HEACOCK ST	15,367	35	50	98.24	1.27	0.49	78.00	4.00	18.00
129	28454	HEACOCK ST	15,149	35	50	97.98	1.39	0.63	78.00	4.00	18.00
130	28455	EUCALYPTUS AVE	4,753	40	50	98.64	1.24	0.12	78.00	4.00	18.00
131	28458	HEACOCK ST	16,595	35	50	97.67	1.47	0.86	78.00	4.00	18.00
132	28459	SUNNYMEAD BLVD	2,501	35	50	99.09	0.75	0.16	78.00	4.00	18.00
133	28460	SUNNYMEAD BLVD	3,667	35	50	98.69	0.86	0.45	78.00	4.00	18.00
134	28461	HEACOCK ST	18,127	35	50	98.01	1.39	0.60	78.00	4.00	18.00
135	28462	HEACOCK ST	19,358	35	50	98.24	1.32	0.44	78.00	4.00	18.00
136	28463	HEACOCK ST	12,028	50	50	96.76	2.04	1.20	78.00	4.00	18.00
137	28464	HEACOCK ST	11,912	50	50	97.21	1.65	1.14	78.00	4.00	18.00
138	28465	ALESSANDRO BLVD	14,400	45	50	98.47	1.19	0.34	78.00	4.00	18.00
139	28466	ALESSANDRO BLVD	19,006	45	50	98.17	1.29	0.54	78.00	4.00	18.00
140	28467	IRONWOOD AVE	3,310	45	50	98.75	1.14	0.11	78.00	4.00	18.00
141	28468	MANZANITA AVE	767	40	50	98.72	1.17	0.11	78.00	4.00	18.00
142	28469	HEACOCK ST	5,742	45	50	98.09	1.51	0.40	78.00	4.00	18.00
143	28470	SUNNYMEAD RANCH PKY	5,381	40	50	98.61	1.15	0.24	78.00	4.00	18.00
144	28471	HEACOCK ST	12,598	50	50	96.03	2.38	1.59	78.00	4.00	18.00
145	28472	MEYER ST	12,444	45	50	97.79	1.49	0.72	78.00	4.00	18.00
146	28473	N WEBSTER AVE	9,473	50	50	96.56	2.22	1.22	78.00	4.00	18.00
147	28482	HEACOCK ST	22,311	45	50	98.02	1.32	0.66	78.00	4.00	18.00
148	28483	JOHN F KENNEDY DR	9,637	45	50	98.60	1.05	0.35	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

149	28489	CACTUS AVE	20,100	40	50	98.75	1.10	0.15	78.00	4.00	18.00
150	28490	CACTUS AVE	40,600	50	50	98.41	1.05	0.54	78.00	4.00	18.00
151	28491	INDIAN ST	3,537	35	50	98.55	1.29	0.16	78.00	4.00	18.00
152	28492	INDIAN ST	3,131	35	50	98.90	1.01	0.09	78.00	4.00	18.00
153	28493	INDIAN ST	3,526	40	50	98.86	0.97	0.17	78.00	4.00	18.00
154	28494	INDIAN ST	2,450	40	50	98.32	1.30	0.38	78.00	4.00	18.00
155	28495	INDIAN ST	1,925	35	50	98.65	1.27	0.08	78.00	4.00	18.00
156	28496	INDIAN ST	4,703	40	50	98.82	1.04	0.14	78.00	4.00	18.00
157	28497	INDIAN ST	3,460	40	50	98.54	1.27	0.19	78.00	4.00	18.00
158	28507	INDIAN AVE	4,367	40	50	98.71	1.19	0.10	78.00	4.00	18.00
159	28534	GRAHAM ST	1,884	40	50	99.12	0.84	0.04	78.00	4.00	18.00
160	28537	GRAHAM ST	1,472	40	50	98.96	0.93	0.11	78.00	4.00	18.00
161	28538	GRAHAM ST	4,675	40	50	98.73	0.85	0.42	78.00	4.00	18.00
162	28539	COTTONWOOD AVE	6,998	45	50	98.56	0.92	0.52	78.00	4.00	18.00
163	28540	EUCALYPTUS AVE	3,989	40	50	98.42	1.44	0.14	78.00	4.00	18.00
164	28541	GRAHAM ST	3,645	40	50	98.37	1.19	0.44	78.00	4.00	18.00
165	28542	ALESSANDRO BLVD	20,768	45	50	98.11	1.24	0.65	78.00	4.00	18.00
166	28551	IRONWOOD AVE	8,009	40	50	98.32	1.04	0.64	78.00	4.00	18.00
167	28553	MEYER ST	12,444	45	50	97.79	1.49	0.72	78.00	4.00	18.00
168	28558	RIVERSIDE DR	11,573	25	50	94.40	2.34	3.26	78.00	4.00	18.00
169	28559	CACTUS AVE	40,600	50	50	95.66	1.87	2.47	78.00	4.00	18.00
170	28674	ELSWORTH ST	4,245	35	50	95.95	3.08	0.97	78.00	4.00	18.00
171	28675	EUCALYPTUS AVE	8,971	40	50	96.82	2.12	1.06	78.00	4.00	18.00
172	28676	EUCALYPTUS AVE	3,288	40	50	98.89	0.86	0.25	78.00	4.00	18.00
173	28678	ELSWORTH ST	4,640	35	50	94.78	2.22	3.00	78.00	4.00	18.00
174	28679	COTTONWOOD AVE	1,820	40	50	98.32	1.03	0.65	78.00	4.00	18.00
175	28680	COTTONWOOD AVE	3,934	40	50	95.66	2.03	2.31	78.00	4.00	18.00
176	28685	ELSWORTH ST	4,969	40	50	96.57	1.78	1.65	78.00	4.00	18.00
177	28686	ALESSANDRO BLVD	18,594	45	50	97.71	1.35	0.94	78.00	4.00	18.00
178	28687	ALESSANDRO BLVD	18,903	45	50	97.25	1.46	1.29	78.00	4.00	18.00
179	28688	ELSWORTH ST	6,100	40	50	96.55	1.60	1.85	78.00	4.00	18.00
180	28689	CACTUS AVE	40,600	50	50	95.41	1.89	2.70	78.00	4.00	18.00
181	28692	MEMORIAL WAY	10,035	40	50	98.29	1.38	0.33	78.00	4.00	18.00
182	28693	EUCALYPTUS AVE	15,862	35	50	97.34	1.83	0.83	78.00	4.00	18.00
183	28703	TOWN CIR	14,368	30	50	97.66	1.64	0.70	78.00	4.00	18.00
184	28729	PIGEON PASS RD	18,307	45	50	98.54	1.20	0.26	78.00	4.00	18.00
185	28730	PIGEON PASS RD	16,603	40	50	98.49	1.24	0.27	78.00	4.00	18.00
186	28731	IRONWOOD AVE	6,966	45	50	98.32	1.04	0.64	78.00	4.00	18.00
187	28732	FREDERICK ST	20,601	40	50	98.07	1.27	0.66	78.00	4.00	18.00
188	28733	CENTERPOINT DR	13,052	30	50	99.13	0.76	0.11	78.00	4.00	18.00
189	28737	PIGEON PASS RD	11,184	45	50	98.61	1.14	0.25	78.00	4.00	18.00
190	28738	PIGEON PASS RD	1,986	45	50	98.64	1.14	0.22	78.00	4.00	18.00
191	28739	PIGEON PASS RD	14,734	45	50	98.62	1.14	0.24	78.00	4.00	18.00
192	28740	FREDERICK ST	12,276	40	50	98.07	1.15	0.78	78.00	4.00	18.00
193	28742	PIGEON PASS RD	686	45	50	95.53	3.92	0.55	78.00	4.00	18.00
194	28743	FREDERICK ST	15,945	40	50	98.28	1.09	0.63	78.00	4.00	18.00
195	28744	FREDERICK ST	11,235	40	50	98.33	1.15	0.52	78.00	4.00	18.00
196	28751	FREDERICK ST	7,192	40	50	97.92	1.33	0.75	78.00	4.00	18.00
197	28760	PIGEON PASS RD	536	45	50	95.90	3.65	0.45	78.00	4.00	18.00
198	28775	EUCALYPTUS AVE	16,320	35	50	96.95	1.81	1.24	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

199	28776	EUCALYPTUS AVE	23,103	35	50	96.76	1.88	1.36	78.00	4.00	18.00
200	28781	ALESSANDRO BLVD	29,474	45	50	95.32	1.83	2.85	78.00	4.00	18.00
201	28789	E ALESSANDRO BLVD	44,431	45	50	95.99	1.83	2.18	78.00	4.00	18.00
202	28808	CACTUS AVE	40,600	50	50	96.03	1.66	2.31	78.00	4.00	18.00
203	28815	DAY ST	5,926	35	50	96.69	1.48	1.83	78.00	4.00	18.00
204	28816	DAY ST	3,258	40	50	96.76	1.85	1.39	78.00	4.00	18.00
205	28817	DAY ST	7,055	25	50	96.67	2.27	1.06	78.00	4.00	18.00
206	28823	BOX SPRINGS RD	8,437	45	50	98.43	0.95	0.62	78.00	4.00	18.00
207	28829	BOX SPRINGS RD	10,134	45	50	97.80	1.45	0.75	78.00	4.00	18.00
208	32731	BOX SPRINGS RD	11,569	45	50	97.84	1.46	0.70	78.00	4.00	18.00
209	34467	E ALESSANDRO BLVD	37,979	45	50	95.91	1.83	2.26	78.00	4.00	18.00
210	34564	HEMLOCK AVE	10,735	35	50	97.77	1.56	0.67	78.00	4.00	18.00
211	36199	IRONWOOD AVE	8,009	40	50	98.32	1.04	0.64	78.00	4.00	18.00
212	36202	PERRIS BLVD	20,679	40	50	98.29	1.25	0.46	78.00	4.00	18.00
213	36241	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
214	36242	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
215	36243	GILMAN SPRINGS RD	21,900	55	50	93.24	2.47	4.29	78.00	4.00	18.00
216	36244	GILMAN SPRINGS RD	21,900	55	50	94.18	2.19	3.63	78.00	4.00	18.00
217	36245	JACK RABBIT TRL	2,608	45	50	88.55	3.83	7.62	78.00	4.00	18.00
218	36246	ALESSANDRO BLVD	2,817	50	50	97.75	1.74	0.51	78.00	4.00	18.00
219	36247	REDLANDS BLVD	17,007	50	50	96.77	2.35	0.88	78.00	4.00	18.00
220	36248	VIA DEL LAGO	3,186	45	50	97.20	1.72	1.08	78.00	4.00	18.00
221	36249	IRIS AVE	19,108	50	50	97.48	1.61	0.91	78.00	4.00	18.00
222	36930	IRIS AVE	18,906	50	50	97.48	1.61	0.91	78.00	4.00	18.00
223	37189	MORENO BEACH DR	7,119	50	50	97.41	2.01	0.58	78.00	4.00	18.00
224	37192	ELSWORTH ST	4,969	40	50	96.57	1.78	1.65	78.00	4.00	18.00
225	41042	HIDDEN SPRINGS DR	149	45	50	98.11	1.77	0.12	78.00	4.00	18.00
226	41043	DRACAEA AVE	676	35	50	98.68	1.22	0.10	78.00	4.00	18.00
227	41044	DRACAEA AVE	893	35	50	98.73	1.11	0.16	78.00	4.00	18.00
228	41045	DRACAEA AVE	1,325	35	50	98.96	0.97	0.07	78.00	4.00	18.00
229	41046	DRACAEA AVE	1,189	35	50	99.05	0.88	0.07	78.00	4.00	18.00
230	41047	DRACAEA AVE	1,818	35	50	99.22	0.73	0.05	78.00	4.00	18.00
231	41048	DRACAEA AVE	3,012	35	50	98.93	0.91	0.16	78.00	4.00	18.00
232	41049	KITCHING ST	3,775	40	50	98.83	0.98	0.19	78.00	4.00	18.00
233	41050	LASSELLE ST	5,948	40	50	98.62	1.06	0.32	78.00	4.00	18.00
234	41051	PERRIS BLVD	29,872	40	50	97.31	1.46	1.23	78.00	4.00	18.00
235	41052	INDIAN ST	1,776	35	50	98.69	1.23	0.08	78.00	4.00	18.00
236	41053	HEACOCK ST	15,498	40	50	98.05	1.33	0.62	78.00	4.00	18.00
237	41054	GRAHAM ST	1,260	40	50	98.97	0.96	0.07	78.00	4.00	18.00
238	41055	FREDERICK ST	16,460	40	50	98.17	1.19	0.64	78.00	4.00	18.00
239	41056	RECHE VISTA DR	10,230	50	50	97.49	1.81	0.70	78.00	4.00	18.00
240	41057	VIA DEL LAGO	1,220	45	50	97.20	1.72	1.08	78.00	4.00	18.00
241	41059	ALTA CALLE	3,020	45	50	97.42	1.71	0.87	78.00	4.00	18.00
242	41060	ALTA CALLE	3,020	45	50	97.42	1.71	0.87	78.00	4.00	18.00
243	41061	ALTA CALLE	2,984	45	50	97.59	1.77	0.64	78.00	4.00	18.00
244	41062	LAKE PERRIS DR	3,025	40	50	97.48	1.77	0.75	78.00	4.00	18.00
245	41064	LAKE PERRIS DR	1,865	40	50	97.81	1.57	0.62	78.00	4.00	18.00
246	41065	EVANS RD	14,849	45	50	97.86	1.45	0.69	78.00	4.00	18.00
247	41066	LASSELLE ST	14,849	45	50	97.86	1.45	0.69	78.00	4.00	18.00
248	41067	VIA DEL LAGO	1,967	45	50	97.20	1.72	1.08	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

249	41068	LAKE PERRIS DR	1,160	40	50	97.81	1.57	0.62	78.00	4.00	18.00
250	41069	TOWNGATE AVE	6,573	40	50	97.98	1.49	0.53	78.00	4.00	18.00
251	41070	TOWNGATE AVE	6,573	40	50	97.98	1.49	0.53	78.00	4.00	18.00
252	41071	OLD 215 FRONTAGE RD	3,276	50	50	94.29	3.21	2.50	78.00	4.00	18.00
253	41072	OLD 215 FRONTAGE RD	1,285	50	50	95.52	2.48	2.00	78.00	4.00	18.00
254	41073	COTTONWOOD AVE	2,131	35	50	93.73	3.84	2.43	78.00	4.00	18.00
255	44344	SUNNYMEAD RANCH PKY	433	40	50	98.19	1.72	0.09	78.00	4.00	18.00
256	44345	OLD LAKE DR	4,949	40	50	98.64	1.11	0.25	78.00	4.00	18.00
257	44346	SUNNYMEAD RANCH PKY	1,784	40	50	99.15	0.75	0.10	78.00	4.00	18.00
258	44347	LAKE VISTA RD	1,863	25	50	99.49	0.43	0.08	78.00	4.00	18.00
259	44348	HEACOCK ST	4,949	45	50	97.77	1.76	0.47	78.00	4.00	18.00
260	44355	COTTONWOOD AVE	442	45	50	98.55	1.41	0.04	78.00	4.00	18.00
261	44356	MORRISON ST	2,001	35	50	98.41	1.30	0.29	78.00	4.00	18.00
262	44357	CANYON SPRINGS PKY	5,159	40	50	98.60	1.08	0.32	78.00	4.00	18.00
263	44358	MEMORIAL WAY	14,374	40	50	97.66	1.64	0.70	78.00	4.00	18.00
264	44359	GATEWAY DR	10,077	35	50	97.48	1.62	0.90	78.00	4.00	18.00
265	44360	LASSELLE ST	14,849	45	50	97.86	1.45	0.69	78.00	4.00	18.00
266	44361	KRAMERIA AVE	6,244	40	50	97.05	1.57	1.38	78.00	4.00	18.00
267	44362	KRAMERIA AVE	1,619	40	50	98.76	0.97	0.27	78.00	4.00	18.00
268	44464	ALESSANDRO BLVD	26,626	45	50	95.78	1.70	2.52	78.00	4.00	18.00
269	44465	N PERRIS BLVD	15,355	45	50	96.76	1.92	1.32	78.00	4.00	18.00
270	44807	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
271	44812	TOWN CIR	13,093	30	50	99.13	0.76	0.11	78.00	4.00	18.00
272	44813	TOWN CIR	12,736	30	50	99.11	0.78	0.11	78.00	4.00	18.00
273	44814	TOWN CIR	13,093	30	50	99.13	0.76	0.11	78.00	4.00	18.00
274	44816	TOWN CIR	14,368	30	50	97.66	1.64	0.70	78.00	4.00	18.00
275	44823	LASSELLE ST	14,348	45	50	97.60	1.61	0.79	78.00	4.00	18.00
276	44826	CACTUS AVE	11,900	45	50	98.70	1.10	0.20	78.00	4.00	18.00
277	44827	CACTUS AVE	11,900	45	50	98.63	1.18	0.19	78.00	4.00	18.00
278	44828	STREET E	0	45	50		0.00	0.00	78.00	4.00	18.00
279	44829	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
280	44830	KRAMERIA AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
281	44831	ALESSANDRO BLVD	7,628	50	50	97.64	1.81	0.55	78.00	4.00	18.00
282	44832	LASSELLE ST	14,849	45	50	97.86	1.45	0.69	78.00	4.00	18.00
283	44833	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
284	44834	COTTONWOOD AVE	4,005	45	50	98.93	0.90	0.17	78.00	4.00	18.00
285	46116	N PERRIS BLVD	15,363	45	50	96.76	1.92	1.32	78.00	4.00	18.00
286	46264	SAN MICHELLE AV	186	40	50	98.19	1.45	0.36	78.00	4.00	18.00
287	46868	HEACOCK ST	10,243	50	50	97.28	1.80	0.92	78.00	4.00	18.00
288	48026	GRAEBER ST	7,094	25	50	93.73	2.28	3.99	78.00	4.00	18.00
289	48027	IRIS AVE	8,219	50	50	95.22	1.92	2.86	78.00	4.00	18.00
290	48028	GRAEBER ST	5,199	25	50	94.05	1.96	3.99	78.00	4.00	18.00
291	48029	SAN MICHELLE AV	186	40	50	98.19	1.45	0.36	78.00	4.00	18.00
292	48030	GRAEBER ST	7,477	25	50	95.11	1.88	3.01	78.00	4.00	18.00
293	48031	RIVERSIDE DR	2,277	25	50	97.53	1.71	0.76	78.00	4.00	18.00
294	48294	LASSELLE ST	897	40	50	98.99	0.97	0.04	78.00	4.00	18.00
295	48295	RECHE CANYON RD	13,371	40	50	97.49	1.81	0.70	78.00	4.00	18.00
296	48346	EUCALYPTUS AVE	16,317	35	50	96.78	1.86	1.36	78.00	4.00	18.00
297	48348	INDIAN ST	2,175	45	50	98.09	1.40	0.51	78.00	4.00	18.00
298	48349	INDIAN ST	2,166	45	50	98.09	1.40	0.51	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

299	48350	NANDINA AVE	1,874	45	50	91.53	4.87	3.60	78.00	4.00	18.00
300	48351	INDIAN ST	2,265	45	50	98.09	1.41	0.50	78.00	4.00	18.00
301	48352	INDIAN ST	3,132	45	50	98.36	1.17	0.47	78.00	4.00	18.00
302	48353	LOCUST AVE	7,119	40	50	97.41	2.01	0.58	78.00	4.00	18.00
303	48358	E OLEANDER AVE	1,338	25	50	98.47	1.31	0.22	78.00	4.00	18.00
304	48366	N PERRIS BLVD	18,973	45	50	96.72	2.03	1.25	78.00	4.00	18.00
305	51959	HEACOCK ST	12,028	50	50	96.76	2.04	1.20	78.00	4.00	18.00
306	51963	HEACOCK ST	10,846	50	50	96.76	2.04	1.20	78.00	4.00	18.00
307	51964	NASON ST	6,936	45	50	98.12	1.30	0.58	78.00	4.00	18.00
308	51965	NASON ST	4,901	45	50	93.73	2.90	3.37	78.00	4.00	18.00
309	52667	REDLANDS BLVD	11,401	50	50	96.47	2.47	1.06	78.00	4.00	18.00
310	52670	REDLANDS BLVD	11,100	50	50	96.07	2.66	1.27	78.00	4.00	18.00
311	52672	MORENO BEACH DR	9,147	45	50	97.72	1.49	0.79	78.00	4.00	18.00
312	52673	REDLANDS BLVD	11,100	50	50	96.07	2.66	1.27	78.00	4.00	18.00
313	52675	REDLANDS BLVD	11,401	50	50	96.47	2.47	1.06	78.00	4.00	18.00
314	52679	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
315	52682	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
316	52714	NASON ST	4,901	45	50	93.73	2.90	3.37	78.00	4.00	18.00
317	52715	NASON ST	8,698	40	50	97.45	1.62	0.93	78.00	4.00	18.00
318	53302	N PERRIS BLVD	10,813	45	50	98.21	1.40	0.39	78.00	4.00	18.00
319	53307	INDIAN ST	3,028	45	50	98.36	1.17	0.47	78.00	4.00	18.00
320	53313	OLD I-215 FRONTAGE RD	6,174	50	50	95.52	2.48	2.00	78.00	4.00	18.00
321	53490	HEACOCK ST	16,221	35	50	97.98	1.39	0.63	78.00	4.00	18.00
322	53491	PERRIS BLVD	27,348	40	50	97.15	1.50	1.35	78.00	4.00	18.00
323	53492	REDLANDS BLVD	12,550	50	50	96.46	2.47	1.07	78.00	4.00	18.00
324	54317	HEMLOCK AVE	3,873	35	50	98.31	1.44	0.25	78.00	4.00	18.00
325	54318	GRAHAM ST	3,452	40	50	99.12	0.84	0.04	78.00	4.00	18.00
326	54744	DAY ST	18,647	40	50	97.33	1.61	1.06	78.00	4.00	18.00
327	56560	PIGEON PASS RD	361	45	50	97.00	3.00	0.00	78.00	4.00	18.00
328	56965	N WEBSTER AVE	11,443	50	50	96.56	2.22	1.22	78.00	4.00	18.00
329	56967	INDIAN ST	3,060	45	50	98.36	1.17	0.47	78.00	4.00	18.00
330	56969	N PERRIS BLVD	18,358	45	50	98.21	1.40	0.39	78.00	4.00	18.00
331	56974	GATEWAY DR	10,077	35	50	97.48	1.62	0.90	78.00	4.00	18.00
332	56976	RECHE CANYON RD	4,016	40	50	97.49	1.81	0.70	78.00	4.00	18.00
333	56977	INDIAN ST	6,059	45	50	95.00	2.00	3.00	78.00	4.00	18.00
334	56978	KRAMERIA AVE	2,808	40	50	98.00	1.00	1.00	78.00	4.00	18.00
335	56979	HEACOCK ST	10,846	50	50	96.76	2.04	1.20	78.00	4.00	18.00
336	56980	KRAMERIA AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
337	56981	EVANS RD	13,570	45	50	97.86	1.45	0.69	78.00	4.00	18.00
338	57031	DAY ST	7,055	40	50	96.67	2.27	1.06	78.00	4.00	18.00
339	57032	OLD I-215 FRONTAGE RD	6,174	50	50	95.52	2.48	2.00	78.00	4.00	18.00
340	57033	HEACOCK ST	18,800	45	50	97.93	1.38	0.69	78.00	4.00	18.00
341	57034	INDIAN ST	2,587	40	50	99.00	1.00	0.00	78.00	4.00	18.00
342	57035	GENTIAN AVE	1,841	45	50	98.80	1.12	0.08	78.00	4.00	18.00
343	57036	PERRIS BLVD	18,170	45	50	96.74	1.62	1.64	78.00	4.00	18.00
344	57037	GENTIAN AVE	5,507	45	50	98.80	1.12	0.08	78.00	4.00	18.00
345	57038	GENTIAN AVE	9,209	45	50	98.80	1.12	0.08	78.00	4.00	18.00
346	57041	NASON ST	4,901	45	50	93.73	2.90	3.37	78.00	4.00	18.00
347	57042	IRIS AVE	13,063	50	50	97.48	1.61	0.91	78.00	4.00	18.00
348	57043	OLIVER ST	7,605	35	50	99.00	1.00	0.00	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

349	57044	SAN MICHELLE AV	186	40	50	98.19	1.45	0.36	78.00	4.00	18.00
350	57045	OLIVER ST	9,413	35	50	99.00	1.00	0.00	78.00	4.00	18.00
351	57046	CACTUS AVE	3,800	50	50	98.74	1.04	0.22	78.00	4.00	18.00
352	57047	ALESSANDRO BLVD	6,942	50	50	98.44	1.13	0.43	78.00	4.00	18.00
353	57048	OLIVER ST	3,957	40	50	98.00	1.00	1.00	78.00	4.00	18.00
354	57049	CACTUS AVE	3,800	50	50	98.74	1.04	0.22	78.00	4.00	18.00
355	57050	JOHN F KENNEDY DR	4,588	45	50	95.95	2.53	1.52	78.00	4.00	18.00
356	57051	ALESSANDRO BLVD	2,819	40	50	98.35	1.37	0.28	78.00	4.00	18.00
357	57052	CACTUS AVE	8,100	50	50	98.74	1.04	0.22	78.00	4.00	18.00
358	57053	QUINCY ST	1,961	45	50	100.00	0.00	0.00	78.00	4.00	18.00
359	57054	COTTONWOOD AVE	4,005	45	50	98.93	0.90	0.17	78.00	4.00	18.00
360	57055	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
361	57056	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
362	57057	REDLANDS BLVD	9,200	50	50	96.05	2.61	1.34	78.00	4.00	18.00
363	57059	EUCALYPTUS AVE	8,000	40	50	93.24	3.01	3.75	78.00	4.00	18.00
364	57060	PERRIS BLVD	30,491	40	50	97.29	1.47	1.24	78.00	4.00	18.00
365	57062	MORRISON ST	0	35	50		0.00	0.00	78.00	4.00	18.00
366	57063	ALESSANDRO BLVD	0	45	50		0.00	0.00	78.00	4.00	18.00
367	57064	ALESSANDRO BLVD	0	50	50		0.00	0.00	78.00	4.00	18.00
368	57065	REDLANDS BLVD	8,400	50	50	95.97	2.63	1.40	78.00	4.00	18.00
369	57066	CACTUS AVE	0	50	50		0.00	0.00	78.00	4.00	18.00
370	57067	THEODORE AVE	1,968	50	50	80.00	8.00	12.00	78.00	4.00	18.00
371	57068	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
372	57069	REDLANDS BLVD	9,200	50	50	96.05	2.61	1.34	78.00	4.00	18.00
373	57071	STREET F	0	45	50		0.00	0.00	78.00	4.00	18.00
374	57072	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
375	57073	THEODORE AVE	1,968	50	50	80.00	8.00	12.00	78.00	4.00	18.00
376	57074	STREET F	0	45	50		0.00	0.00	78.00	4.00	18.00
377	57075	THEODORE AVE	2,048	50	50	80.00	8.00	12.00	78.00	4.00	18.00
378	57076	GRAHAM ST	3,452	40	50	99.12	0.84	0.04	78.00	4.00	18.00
379	57077	IRONWOOD AVE	5,604	40	50	98.16	1.46	0.38	78.00	4.00	18.00
380	57078	REDLANDS BLVD	11,100	50	50	96.07	2.66	1.27	78.00	4.00	18.00
381	57079	EUCALYPTUS AVE	6,700	40	50	80.00	9.60	10.40	78.00	4.00	18.00
382	57080	THEODORE AVE	1,100	50	50	80.00	8.00	12.00	78.00	4.00	18.00
383	57081	EUCALYPTUS AVE	6,700	40	50	80.00	9.60	10.40	78.00	4.00	18.00
384	57082	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
385	57083	STREET E	0	45	50		0.00	0.00	78.00	4.00	18.00
386	57084	THEODORE AVE	1,752	50	50	80.00	8.00	12.00	78.00	4.00	18.00
387	57085	STREET E	0	45	50		0.00	0.00	78.00	4.00	18.00
388	57086	REDLANDS BLVD	9,200	50	50	96.07	2.66	1.27	78.00	4.00	18.00
389	57087	ENCELIA AVE	0	35	50		0.00	0.00	78.00	4.00	18.00
390	57088	IRONWOOD AVE	374	55	50	99.13	0.60	0.27	78.00	4.00	18.00
391	57089	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
392	57091	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
393	57093	IRONWOOD AVE	5,603	45	50	98.75	1.14	0.11	78.00	4.00	18.00
394	57095	ELDER AVE	3,895	35	50	98.00	2.00	0.00	78.00	4.00	18.00
395	57096	ELDER AVE	1,926	40	50	99.00	1.00	0.00	78.00	4.00	18.00
396	57097	LOCUST AVE	7,119	40	50	97.41	2.01	0.58	78.00	4.00	18.00
397	57098	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
398	57100	IRONWOOD AVE	44	55	50	97.15	2.72	0.13	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

399	57101	ELDER AVE	3,895	35	50	98.00	2.00	0.00	78.00	4.00	18.00
400	57127	RECHE VISTA DR	10,230	50	50	97.49	1.81	0.70	78.00	4.00	18.00
401	57222	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
402	57223	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
403	57282	PIGEON PASS RD	361	45	50	97.00	3.00	0.00	78.00	4.00	18.00
404	57495	KITCHING ST	5,254	40	50	98.34	1.53	0.13	78.00	4.00	18.00
405	57513	IRONWOOD AVE	6,966	45	50	98.32	1.04	0.64	78.00	4.00	18.00
406	57514	HEACOCK ST	15,815	50	50	97.21	1.65	1.14	78.00	4.00	18.00
407	58231	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
408	58345	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
409	58347	CACTUS AVE	0	50	50		0.00	0.00	78.00	4.00	18.00
410	58348	JOHN F KENNEDY DR	9,805	45	50	95.95	2.53	1.52	78.00	4.00	18.00
411	58350	STREET F	0	45	50		0.00	0.00	78.00	4.00	18.00
412	58351	PIGEON PASS RD	536	45	50	95.90	3.65	0.45	78.00	4.00	18.00
413	58352	GATEWAY DR	10,077	35	50	97.48	1.62	0.90	78.00	4.00	18.00
414	58353	TOWN CIR	14,368	30	50	97.66	1.64	0.70	78.00	4.00	18.00
415	58354	VIA DEL LAGO	3,186	45	50	97.20	1.72	1.08	78.00	4.00	18.00
416	58395	STREET E	0	45	50		0.00	0.00	78.00	4.00	18.00
417	58396	REDLANDS BLVD	17,007	50	50	96.77	2.35	0.88	78.00	4.00	18.00
418	58403	RECHE VISTA DR	10,230	50	50	97.49	1.81	0.70	78.00	4.00	18.00
419	58404	HIGHLAND BLVD	713	40	50	96.00	3.00	1.00	78.00	4.00	18.00
420	58405	IRONWOOD AVE	44	55	50	97.15	2.72	0.13	78.00	4.00	18.00
421	58406	THEODORE AVE	757	50	50	93.50	4.65	1.85	78.00	4.00	18.00
422	58407	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
423	58408	IRONWOOD AVE	374	55	50	99.13	0.60	0.27	78.00	4.00	18.00
424	58409	IRONWOOD AVE	374	55	50	99.13	0.60	0.27	78.00	4.00	18.00
425	58411	CACTUS AVE	3,800	50	50	98.74	1.04	0.22	78.00	4.00	18.00
426	58412	GRAEBER ST	7,094	25	50	93.73	2.28	3.99	78.00	4.00	18.00
427	58413	CACTUS AVE	3,800	50	50	98.74	1.04	0.22	78.00	4.00	18.00
428	58414	OLIVER ST	9,413	35	50	99.00	1.00	0.00	78.00	4.00	18.00
429	58415	CACTUS AVE	8,100	50	50	98.74	1.04	0.22	78.00	4.00	18.00
430	58416	CACTUS AVE	8,100	50	50	98.74	1.04	0.22	78.00	4.00	18.00
431	58417	IRIS AVE	18,906	50	50	97.48	1.61	0.91	78.00	4.00	18.00
432	58419	ALTA CALLE	3,020	45	50	97.42	1.71	0.87	78.00	4.00	18.00
433	58420	IRIS AVE	18,906	50	50	97.48	1.61	0.91	78.00	4.00	18.00
434	58421	NASON ST	4,901	45	50	93.73	2.90	3.37	78.00	4.00	18.00
435	58422	LAKE PERRIS DR	3,025	40	50	97.81	1.57	0.62	78.00	4.00	18.00
436	58423	ALTA CALLE	3,020	45	50	97.42	1.71	0.87	78.00	4.00	18.00
437	58451	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
438	58452	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
439	58453	EUCALYPTUS AVE	8,000	40	50	93.24	3.01	3.75	78.00	4.00	18.00
440	58454	MORENO BEACH DR	8,071	45	50	97.56	1.50	0.94	78.00	4.00	18.00
441	58455	NASON ST	13,492	40	50	97.45	1.62	0.93	78.00	4.00	18.00
442	58456	COTTONWOOD AVE	1,191	40	50	98.40	1.12	0.48	78.00	4.00	18.00
443	58457	IRONWOOD AVE	4,062	55	50	98.27	1.56	0.17	78.00	4.00	18.00
444	58458	NASON ST	2,625	40	50	98.76	1.04	0.20	78.00	4.00	18.00
445	58459	MORENO BEACH DR	9,147	45	50	97.72	1.49	0.79	78.00	4.00	18.00
446	58460	NASON ST	7,928	40	50	98.12	1.30	0.58	78.00	4.00	18.00
447	58461	ALESSANDRO BLVD	6,942	50	50	98.44	1.13	0.43	78.00	4.00	18.00
448	58976	IRONWOOD AVE	5,604	40	50	98.16	1.46	0.38	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

449	58977	IRONWOOD AVE	3,310	45	50	98.75	1.14	0.11	78.00	4.00	18.00
450	58978	ALESSANDRO BLVD	0	50	50		0.00	0.00	78.00	4.00	18.00
451	58979	PERRIS BLVD	8,147	50	50	98.29	1.29	0.42	78.00	4.00	18.00
452	58980	PERRIS BLVD	7,468	50	50	98.29	1.29	0.42	78.00	4.00	18.00
453	58990	PERRIS BLVD	8,296	50	50	98.29	1.29	0.42	78.00	4.00	18.00
454	58991	INDIAN AVE	4,367	40	50	98.71	1.19	0.10	78.00	4.00	18.00
455	58992	HEACOCK ST	4,949	45	50	98.09	1.51	0.40	78.00	4.00	18.00
456	58994	SUNNYMEAD RANCH PKY	3,761	40	50	98.38	1.22	0.40	78.00	4.00	18.00
457	58995	PERRIS BLVD	5,392	50	50	98.29	1.29	0.42	78.00	4.00	18.00
458	58996	ELDER AVE	1,926	35	50	99.00	1.00	0.00	78.00	4.00	18.00
459	58997	MORENO BEACH DR	7,119	50	50	97.41	2.01	0.58	78.00	4.00	18.00
460	58998	MANZANITA AVE	767	40	50	98.72	1.17	0.11	78.00	4.00	18.00
461	59014	PIGEON PASS RD	729	45	50	95.53	3.92	0.55	78.00	4.00	18.00
462	59015	HEACOCK ST	13,144	45	50	98.35	1.27	0.38	78.00	4.00	18.00
463	59016	IRONWOOD AVE	5,634	40	50	98.47	1.14	0.39	78.00	4.00	18.00
464	59017	HEACOCK ST	12,829	45	50	98.35	1.27	0.38	78.00	4.00	18.00
465	59018	PIGEON PASS RD	14,734	45	50	98.62	1.14	0.24	78.00	4.00	18.00
466	59019	ELDER AVE	3,896	35	50	98.00	2.00	0.00	78.00	4.00	18.00
467	59022	GRAEBER ST	5,199	25	50	94.05	1.96	3.99	78.00	4.00	18.00
468	59058	PIGEON PASS RD	536	45	50	95.90	3.65	0.45	78.00	4.00	18.00
469	59059	HIDDEN SPRINGS DR	149	45	50	98.11	1.77	0.12	78.00	4.00	18.00
470	59060	BOX SPRINGS RD	8,437	45	50	98.43	0.95	0.62	78.00	4.00	18.00
471	59062	SUNNYMEAD RANCH PKY	433	40	50	98.19	1.72	0.09	78.00	4.00	18.00
472	59064	OLD LAKE DR	4,949	40	50	98.64	1.11	0.25	78.00	4.00	18.00
473	59066	SUNNYMEAD RANCH PKY	9,403	40	50	98.61	1.15	0.24	78.00	4.00	18.00
474	59069	IRONWOOD AVE	8,009	40	50	98.32	1.04	0.64	78.00	4.00	18.00
475	59073	COTTONWOOD AVE	2,131	35	50	93.73	3.84	2.43	78.00	4.00	18.00
476	59101	PIGEON PASS RD	18,307	45	50	98.62	1.14	0.24	78.00	4.00	18.00
477	59102	BOX SPRINGS RD	10,134	45	50	97.80	1.45	0.75	78.00	4.00	18.00
478	59432	LASSELLE ST	12,911	45	50	97.86	1.45	0.69	78.00	4.00	18.00
479	59433	KITCHING ST	5,024	40	50	98.34	1.53	0.13	78.00	4.00	18.00
480	59437	LASSELLE ST	13,147	45	50	98.67	0.96	0.37	78.00	4.00	18.00
481	59438	KITCHING ST	8,793	40	50	98.76	1.02	0.22	78.00	4.00	18.00
482	59439	GENTIAN AVE	5,407	45	50	98.80	1.12	0.08	78.00	4.00	18.00
483	59440	N PERRIS BLVD	15,355	45	50	96.76	1.92	1.32	78.00	4.00	18.00
484	59442	N WEBSTER AVE	11,443	50	50	96.56	2.22	1.22	78.00	4.00	18.00
485	59444	N WEBSTER AVE	11,443	50	50	96.56	2.22	1.22	78.00	4.00	18.00
486	59446	NANDINA AVE	1,587	45	50	94.16	3.31	2.53	78.00	4.00	18.00
487	59447	NANDINA AVE	2,676	45	50	94.16	3.31	2.53	78.00	4.00	18.00
488	59448	INDIAN ST	3,132	45	50	98.36	1.17	0.47	78.00	4.00	18.00
489	59449	KRAMERIA AVE	2,808	40	50	98.00	1.00	1.00	78.00	4.00	18.00
490	59450	KRAMERIA AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
491	59451	INDIAN ST	2,175	45	50	97.00	2.00	1.00	78.00	4.00	18.00
492	59452	GENTIAN AVE	5,507	45	50	98.80	1.12	0.08	78.00	4.00	18.00
493	59453	INDIAN ST	2,450	40	50	98.32	1.30	0.38	78.00	4.00	18.00
494	59454	PERRIS BLVD	14,295	45	50	96.33	1.89	1.78	78.00	4.00	18.00
495	59455	HEACOCK ST	10,846	40	50	96.76	2.04	1.20	78.00	4.00	18.00
496	59458	HEACOCK ST	12,028	50	50	96.76	2.04	1.20	78.00	4.00	18.00
497	59467	INDIAN ST	4,703	40	50	98.82	1.04	0.14	78.00	4.00	18.00
498	59468	HEACOCK ST	22,311	45	50	98.02	1.32	0.66	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Existing

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

499	59469	CACTUS AVE	20,100	40	50	98.75	1.10	0.15	78.00	4.00	18.00
500	59470	INDIAN ST	2,587	40	50	99.00	1.00	0.00	78.00	4.00	18.00
501	59471	GENTIAN AVE	1,841	45	50	98.80	1.12	0.08	78.00	4.00	18.00
502	59473	GRAHAM ST	3,452	40	50	99.12	0.84	0.04	78.00	4.00	18.00
503	59474	HEACOCK ST	15,367	35	50	98.24	1.27	0.49	78.00	4.00	18.00
504	59475	INDIAN ST	3,131	35	50	98.90	1.01	0.09	78.00	4.00	18.00
505	59476	HEACOCK ST	14,022	45	50	97.93	1.38	0.69	78.00	4.00	18.00
506	59477	GRAHAM ST	5,014	40	50	98.37	1.19	0.44	78.00	4.00	18.00
507	59478	CACTUS AVE	40,600	50	50	98.41	1.05	0.54	78.00	4.00	18.00
508	59479	COTTONWOOD AVE	5,803	45	50	98.50	0.94	0.56	78.00	4.00	18.00
509	59480	GRAHAM ST	4,675	40	50	98.73	0.85	0.42	78.00	4.00	18.00
510	59481	HEACOCK ST	9,504	40	50	97.93	1.38	0.69	78.00	4.00	18.00
511	59482	HEMLOCK AVE	3,873	35	50	98.31	1.44	0.25	78.00	4.00	18.00
512	59483	SUNNYMEAD BLVD	3,693	35	50	98.69	0.86	0.45	78.00	4.00	18.00
513	59484	HEACOCK ST	16,221	35	50	97.98	1.39	0.63	78.00	4.00	18.00
514	59486	GRAHAM ST	3,452	40	50	99.12	0.84	0.04	78.00	4.00	18.00
515	59487	EUCALYPTUS AVE	7,119	40	50	99.00	1.00	0.00	78.00	4.00	18.00
516	59488	INDIAN ST	3,492	35	50	98.55	1.29	0.16	78.00	4.00	18.00
517	59490	EUCALYPTUS AVE	5,532	40	50	99.00	1.00	0.00	78.00	4.00	18.00
518	59491	CANYON SPRINGS PKY	13,364	40	50	98.00	1.00	1.00	78.00	4.00	18.00
519	59493	EUCALYPTUS AVE	3,214	40	50	99.00	1.00	0.00	78.00	4.00	18.00
520	59494	COTTONWOOD AVE	4,967	45	50	98.62	1.14	0.24	78.00	4.00	18.00
521	59495	INDIAN ST	639	40	50	98.54	1.27	0.19	78.00	4.00	18.00
522	59543	FREDERICK ST	7,512	40	50	97.92	1.33	0.75	78.00	4.00	18.00
523	59544	CACTUS AVE	40,600	50	50	95.66	1.87	2.47	78.00	4.00	18.00
524	59545	ELSWORTH ST	4,969	40	50	96.00	2.00	2.00	78.00	4.00	18.00
525	59546	CACTUS AVE	40,600	50	50	94.23	2.16	3.61	78.00	4.00	18.00
526	59547	ELSWORTH ST	4,969	40	50	96.57	1.78	1.65	78.00	4.00	18.00
527	59548	ALESSANDRO BLVD	29,474	45	50	95.32	1.83	2.85	78.00	4.00	18.00
528	59549	E ALESSANDRO BLVD	36,423	45	50	95.57	1.87	2.56	78.00	4.00	18.00
529	59550	OLD I-215 FRONTAGE RD	6,430	50	50	95.52	2.48	2.00	78.00	4.00	18.00
530	59552	TOWN CIR	12,736	30	50	99.11	0.78	0.11	78.00	4.00	18.00
531	59553	TOWN CIR	12,736	30	50	99.11	0.78	0.11	78.00	4.00	18.00
532	59554	COTTONWOOD AVE	3,934	40	50	95.66	2.03	2.31	78.00	4.00	18.00
533	59556	DAY ST	7,055	25	50	96.67	2.27	1.06	78.00	4.00	18.00
534	59558	MEMORIAL WAY	14,374	40	50	97.66	1.64	0.70	78.00	4.00	18.00
535	59559	CORPORATE CENTRE PL	13,364	40	50	98.00	1.00	1.00	78.00	4.00	18.00
536	59560	TOWN CIR	14,368	30	50	97.66	1.64	0.70	78.00	4.00	18.00
537	59561	TOWN CIR	12,736	30	50	99.11	0.78	0.11	78.00	4.00	18.00
538	59562	FREDERICK ST	8,772	40	50	92.30	7.18	0.52	78.00	4.00	18.00
539	59563	ELSWORTH ST	4,624	35	50	96.00	2.00	2.00	78.00	4.00	18.00
540	59564	ALESSANDRO BLVD	18,594	45	50	97.71	1.35	0.94	78.00	4.00	18.00
541	59565	EUCALYPTUS AVE	8,971	40	50	96.82	2.12	1.06	78.00	4.00	18.00
542	59567	ELSWORTH ST	5,682	35	50	95.00	3.00	2.00	78.00	4.00	18.00
543	59568	COTTONWOOD AVE	1,820	40	50	98.32	1.03	0.65	78.00	4.00	18.00
544	59569	COTTONWOOD AVE	6,998	45	50	98.56	0.92	0.52	78.00	4.00	18.00
545	59570	DAY ST	18,647	40	50	97.33	1.61	1.06	78.00	4.00	18.00
546	59572	CORPORATE CENTRE PL	13,364	40	50	98.00	1.00	1.00	78.00	4.00	18.00
547	59574	DAY ST	7,295	40	50	98.55	1.15	0.30	78.00	4.00	18.00
548	59575	CACTUS AVE	11,900	45	50	98.63	1.18	0.19	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

549	59576	CACTUS AVE	11,900	45	50	98.70	1.10	0.20	78.00	4.00	18.00
550	59577	COTTONWOOD AVE	1,420	45	50	98.79	1.10	0.11	78.00	4.00	18.00
551	59578	MORRISON ST	2,001	35	50	98.41	1.30	0.29	78.00	4.00	18.00
552	59579	ALESSANDRO BLVD	7,628	50	50	97.64	1.81	0.55	78.00	4.00	18.00
553	59580	LASSELLE ST	4,568	40	50	98.54	1.18	0.28	78.00	4.00	18.00
554	59581	KITCHING ST	2,999	40	50	99.05	0.88	0.07	78.00	4.00	18.00
555	59582	ALESSANDRO BLVD	6,748	45	50	97.95	1.55	0.50	78.00	4.00	18.00
556	59583	EUCALYPTUS AVE	9,475	40	50	98.51	1.16	0.33	78.00	4.00	18.00
557	59585	DRACAEA AVE	3,012	35	50	98.93	0.91	0.16	78.00	4.00	18.00
558	59587	LASSELLE ST	5,533	45	50	98.43	1.37	0.20	78.00	4.00	18.00
559	59589	CACTUS AVE	20,100	40	50	98.70	1.10	0.20	78.00	4.00	18.00
560	59590	HEACOCK ST	10,846	50	50	97.28	1.80	0.92	78.00	4.00	18.00
561	59591	ELDER AVE	3,895	35	50	98.00	2.00	0.00	78.00	4.00	18.00
562	59592	SUNNYMEAD BLVD	9,034	40	50	98.55	1.11	0.34	78.00	4.00	18.00
563	59593	LASSELLE ST	1,038	40	50	98.99	0.97	0.04	78.00	4.00	18.00
564	59594	EUCALYPTUS AVE	7,778	40	50	98.68	1.13	0.19	78.00	4.00	18.00
565	59595	EUCALYPTUS AVE	6,080	40	50	98.71	1.16	0.13	78.00	4.00	18.00
566	59596	SUNNYMEAD BLVD	12,989	40	50	97.91	1.26	0.83	78.00	4.00	18.00
567	59597	EUCALYPTUS AVE	7,455	40	50	98.75	1.11	0.14	78.00	4.00	18.00
568	59598	COTTONWOOD AVE	442	45	50	98.55	1.41	0.04	78.00	4.00	18.00
569	59599	MORRISON ST	2,713	35	50	98.41	1.30	0.29	78.00	4.00	18.00
570	59600	KITCHING ST	3,080	40	50	98.67	1.29	0.04	78.00	4.00	18.00
571	59601	PERRIS BLVD	22,805	40	50	96.86	1.56	1.58	78.00	4.00	18.00
572	59602	CACTUS AVE	20,100	40	50	98.72	1.13	0.15	78.00	4.00	18.00
573	59603	CACTUS AVE	20,100	40	50	98.74	1.10	0.16	78.00	4.00	18.00
574	59605	PERRIS BLVD	18,170	45	50	96.74	1.62	1.64	78.00	4.00	18.00
575	59606	GENTIAN AVE	4,195	45	50	98.80	1.12	0.08	78.00	4.00	18.00
576	59607	COTTONWOOD AVE	3,088	45	50	98.66	1.18	0.16	78.00	4.00	18.00
577	59608	PERRIS BLVD	25,427	40	50	97.22	1.48	1.30	78.00	4.00	18.00
578	59609	IRONWOOD AVE	4,471	40	50	98.46	1.11	0.43	78.00	4.00	18.00
579	59610	INDIAN ST	3,131	35	50	98.90	1.01	0.09	78.00	4.00	18.00
580	59611	PERRIS BLVD	14,364	40	50	98.29	1.25	0.46	78.00	4.00	18.00
581	59612	DRACAEA AVE	1,818	35	50	99.22	0.73	0.05	78.00	4.00	18.00
582	59613	HEACOCK ST	12,598	50	50	96.03	2.38	1.59	78.00	4.00	18.00
583	59614	COTTONWOOD AVE	4,257	45	50	98.65	1.07	0.28	78.00	4.00	18.00
584	59615	LOCUST AVE	7,119	40	50	97.41	2.01	0.58	78.00	4.00	18.00
585	59616	PERRIS BLVD	27,348	40	50	97.15	1.50	1.35	78.00	4.00	18.00
586	59618	SUNNYMEAD BLVD	2,469	35	50	98.59	1.11	0.30	78.00	4.00	18.00
587	59620	PERRIS BLVD	28,457	40	50	97.13	1.51	1.36	78.00	4.00	18.00
588	59621	EUCALYPTUS AVE	5,525	40	50	99.00	0.91	0.09	78.00	4.00	18.00
589	59622	INDIAN ST	2,069	35	50	98.65	1.27	0.08	78.00	4.00	18.00
590	59623	DRACAEA AVE	1,189	35	50	99.05	0.88	0.07	78.00	4.00	18.00
591	59624	ALESSANDRO BLVD	11,980	45	50	98.14	1.43	0.43	78.00	4.00	18.00
592	59628	RECHE VISTA DR	10,230	50	50	97.49	1.81	0.70	78.00	4.00	18.00
593	59630	LAKE VISTA RD	1,817	25	50	99.49	0.43	0.08	78.00	4.00	18.00
594	59631	HIDDEN SPRINGS DR	149	35	50	98.11	1.77	0.12	78.00	4.00	18.00
595	60043	GILMAN SPRINGS RD	21,900	55	50	94.18	2.19	3.63	78.00	4.00	18.00
596	60044	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
597	60046	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
598	60047	JACK RABBIT TRL	2,608	45	50	88.55	3.83	7.62	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

599	60115	MORENO BEACH DR	9,456	50	50	98.20	1.12	0.68	78.00	4.00	18.00
600	60131	PERRIS BLVD	5,392	50	50	98.29	1.29	0.42	78.00	4.00	18.00
601	60132	CANYON SPRINGS PKY	5,159	40	50	98.60	1.08	0.32	78.00	4.00	18.00
602	60133	ALESSANDRO BLVD	0	50	50		0.00	0.00	78.00	4.00	18.00
603	60134	CORPORATE CENTRE PL	13,364	40	50	98.00	1.00	1.00	78.00	4.00	18.00
604	60136	CACTUS AVE	3,800	50	50	98.74	1.04	0.22	78.00	4.00	18.00
605	60142	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
606	60143	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
607	60146	QUINCY ST	0	45	50		0.00	0.00	78.00	4.00	18.00
608	60147	RECHE VISTA DR	10,230	50	50	97.49	1.81	0.70	78.00	4.00	18.00
609	60148	EUCALYPTUS AVE	0	40	50		0.00	0.00	78.00	4.00	18.00
610	60149	GILMAN SPRINGS RD	21,900	55	50	93.15	2.42	4.43	78.00	4.00	18.00
611	60150	STREET E	0	45	50		0.00	0.00	78.00	4.00	18.00
612	60151	ALESSANDRO BLVD	2,819	40	50	98.35	1.37	0.28	78.00	4.00	18.00
613	60152	ALESSANDRO BLVD	2,819	40	50	98.35	1.37	0.28	78.00	4.00	18.00
614	60155	GILMAN SPRINGS RD	21,900	55	50	94.06	2.27	3.67	78.00	4.00	18.00
615	60173	STREET F	0	45	50		0.00	0.00	78.00	4.00	18.00
616	60491	IRONWOOD AVE	6,990	45	50	98.32	1.04	0.64	78.00	4.00	18.00
617	61193	GRAEBER ST	5,199	25	50	94.05	1.96	3.99	78.00	4.00	18.00
618	61273	JOHN F KENNEDY DR	10,704	50	50	95.98	2.56	1.46	78.00	4.00	18.00
619	61547	PIGEON PASS RD	361	45	50	97.00	3.00	0.00	78.00	4.00	18.00
620	61550	PIGEON PASS RD	361	45	50	97.00	3.00	0.00	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing  
**Assessment Metric:** Hard

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Hard				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	3490	CACTUS AVE	75.3	65.3	71.0	77.0	79	251	792	2,506	7,924	25,059
2	7726	DAY ST	65.0	56.2	58.9	66.4	7	22	69	218	690	2,183
3	7889	ENCELIA AVE				#VALUE!						
4	9102	PIGEON PASS RD	70.3	60.3	60.4	71.1	20	64	204	644	2,037	6,441
5	11519	CACTUS AVE	75.2	66.2	72.3	77.4	87	275	869	2,748	8,689	27,477
6	11520	CACTUS AVE	75.2	66.5	72.9	77.6	91	288	910	2,877	9,099	28,772
7	11522	PIGEON PASS RD	70.3	60.5	60.9	71.2	21	66	208	659	2,084	6,591
8	11523	FREDERICK ST	70.6	60.8	61.8	71.5	22	71	223	706	2,233	7,063
9	11524	SUNNYMEAD BLVD	61.9	51.9	54.1	62.9	3	10	31	97	308	975
10	11525	FREDERICK ST	70.4	60.2	61.8	71.3	21	67	213	674	2,133	6,745
11	11526	HEMLOCK AVE	63.5	54.8	52.4	64.3	4	13	43	135	426	1,346
12	11529	E ALESSANDRO BLVD	73.5	64.7	70.5	75.6	57	182	574	1,815	5,741	18,154
13	11530	E ALESSANDRO BLVD	73.5	64.6	70.5	75.6	57	182	574	1,815	5,741	18,154
14	11532	DAY ST	69.2	60.3	63.3	70.6	18	57	182	574	1,815	5,741
15	11533	DAY ST	67.7	59.0	61.7	69.1	13	41	129	406	1,285	4,064
16	11534	DAY ST	67.5	58.2	60.6	68.7	12	37	117	371	1,172	3,707
17	11535	DAY ST	65.2	54.8	53.8	65.8	6	19	60	190	601	1,901
18	11543	NASON ST	65.9	56.5	57.8	66.9	8	24	77	245	774	2,449
19	11544	NASON ST	61.8	50.9	48.6	62.3	3	8	27	85	269	849
20	11545	NASON ST	67.0	58.1	60.5	68.3	11	34	107	338	1,069	3,380
21	11547	SUNNYMEAD BLVD	67.6	57.7	60.7	68.8	12	38	120	379	1,199	3,793
22	11548	SUNNYMEAD BLVD	66.2	55.6	55.3	66.9	8	24	77	245	774	2,449
23	11550	SUNNYMEAD BLVD	67.0	58.4	61.9	68.6	11	36	115	362	1,145	3,622
24	11551	SUNNYMEAD BLVD	58.8	49.0	48.5	59.6	1	5	14	46	144	456
25	11594	THEODORE AVE	58.8	56.5	62.4	64.7	5	15	47	148	467	1,476
26	11595	THEODORE AVE	59.7	54.3	54.5	61.7	2	7	23	74	234	740
27	11598	THEODORE AVE	61.4	59.0	65.0	67.2	8	26	83	262	830	2,624
28	11618	MORENO BEACH DR	67.6	57.7	59.4	68.6	11	36	115	362	1,145	3,622
29	11619	MORENO BEACH DR	66.2	56.5	56.8	67.1	8	26	81	256	811	2,564
30	11620	MORENO BEACH DR	68.8	59.0	61.4	69.9	15	49	155	489	1,545	4,886
31	11628	REDLANDS BLVD	69.7	61.7	62.7	71.0	20	63	199	629	1,991	6,295
32	11629	REDLANDS BLVD	70.3	62.0	62.5	71.5	22	71	223	706	2,233	7,063
33	11630	REDLANDS BLVD	68.9	60.8	62.1	70.2	17	52	166	524	1,656	5,236
34	27569	ALESSANDRO BLVD	62.1	53.7	55.7	63.5	4	11	35	112	354	1,119
35	27588	IRONWOOD AVE	46.9	38.5	29.2	47.5	0	0	1	3	9	28
36	27732	MORENO BEACH DR	69.1	57.0	59.2	69.8	15	48	151	477	1,510	4,775
37	27733	MORENO BEACH DR	69.1	57.4	59.3	69.8	15	48	151	477	1,510	4,775
38	27734	CACTUS AVE	68.4	56.3	53.7	68.8	12	38	120	379	1,199	3,793
39	27735	MORENO BEACH DR	70.9	61.8	64.3	72.2	26	83	262	830	2,624	8,298

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

40	27736	JOHN F KENNEDY DR	67.8	60.3	62.6	69.5	14	45	141	446	1,409	4,456
41	27783	MORENO BEACH DR	69.0	57.2	59.2	69.6	14	46	144	456	1,442	4,560
42	27784	ALESSANDRO BLVD	61.0	51.4	49.3	61.7	2	7	23	74	234	740
43	27785	ALESSANDRO BLVD	67.7	56.0	56.0	68.3	11	34	107	338	1,069	3,380
44	27786	MORENO BEACH DR	67.1	56.1	58.7	67.9	10	31	97	308	975	3,083
45	27787	COTTONWOOD AVE	64.1	51.9	49.1	64.4	4	14	44	138	435	1,377
46	27788	COTTONWOOD AVE	57.3	46.8	47.9	58.1	1	3	10	32	102	323
47	27805	IRONWOOD AVE	63.2	48.1	48.6	63.4	3	11	35	109	346	1,094
48	27806	IRONWOOD AVE	66.2	55.3	49.6	66.6	7	23	72	229	723	2,285
49	27862	REDLANDS BLVD	70.5	62.3	62.7	71.7	23	74	234	740	2,339	7,396
50	27863	REDLANDS BLVD	70.2	61.9	62.5	71.4	22	69	218	690	2,183	6,902
51	27864	REDLANDS BLVD	68.5	60.5	61.9	69.9	15	49	155	489	1,545	4,886
52	27865	REDLANDS BLVD	68.5	60.4	62.1	69.9	15	49	155	489	1,545	4,886
53	28114	STREET F				#VALUE!						
54	28136	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
55	28170	IRONWOOD AVE	62.4	51.3	45.6	62.8	3	10	30	95	301	953
56	28181	NASON ST	65.8	56.2	57.6	66.8	8	24	76	239	757	2,393
57	28182	EUCALYPTUS AVE	64.4	54.0	49.3	64.9	5	15	49	155	489	1,545
58	28183	NASON ST	65.5	55.7	57.0	66.5	7	22	71	223	706	2,233
59	28184	COTTONWOOD AVE	59.5	48.3	42.8	59.9	2	5	15	49	155	489
60	28191	ALESSANDRO BLVD	68.1	58.4	57.5	68.9	12	39	123	388	1,227	3,881
61	28198	LASSELLE ST	63.1	52.6	51.2	63.7	4	12	37	117	371	1,172
62	28199	LASSELLE ST	62.9	52.7	51.2	63.6	4	11	36	115	362	1,145
63	28200	COTTONWOOD AVE	59.9	48.9	38.7	60.2	2	5	17	52	166	524
64	28203	LASSELLE ST	68.5	56.6	57.0	69.1	13	41	129	406	1,285	4,064
65	28204	LASSELLE ST	68.9	56.7	55.2	69.4	14	44	138	435	1,377	4,355
66	28205	GENTIAN AVE	65.4	54.2	47.3	65.8	6	19	60	190	601	1,901
67	28206	EUCALYPTUS AVE	65.5	55.0	52.0	66.0	6	20	63	199	629	1,991
68	28207	EUCALYPTUS AVE	66.3	55.9	55.3	67.0	8	25	79	251	792	2,506
69	28208	LASSELLE ST	65.6	55.3	51.4	66.1	6	20	64	204	644	2,037
70	28209	ALESSANDRO BLVD	66.3	56.5	56.1	67.1	8	26	81	256	811	2,564
71	28210	LASSELLE ST	67.9	57.4	54.1	68.4	11	35	109	346	1,094	3,459
72	28211	JOHN F KENNEDY DR	67.5	55.6	56.5	68.1	10	32	102	323	1,021	3,228
73	28212	COTTONWOOD AVE	59.9	48.9	41.1	60.3	2	5	17	54	169	536
74	28213	IRONWOOD AVE	65.7	56.4	55.3	66.5	7	22	71	223	706	2,233
75	28254	LASSELLE ST	71.6	60.6	62.1	72.4	27	87	275	869	2,748	8,689
76	28255	IRIS AVE	67.5	58.4	59.8	68.7	12	37	117	371	1,172	3,707
77	28256	KRAMERIA AVE	58.6	47.5	46.8	59.2	1	4	13	42	132	416
78	28283	LAKE PERRIS DR	62.3	53.3	54.1	63.4	3	11	35	109	346	1,094
79	28305	PERRIS BLVD	68.5	57.6	57.1	69.1	13	41	129	406	1,285	4,064
80	28306	MANZANITA AVE	53.9	42.0	39.8	54.4	0	1	4	14	44	138
81	28307	PERRIS BLVD	68.4	57.4	57.1	69.0	13	40	126	397	1,256	3,972
82	28320	PERRIS BLVD	68.8	57.6	56.9	69.4	14	44	138	435	1,377	4,355
83	28334	MANZANITA AVE	52.7	42.0	39.8	53.3	0	1	3	11	34	107
84	28335	SUNNYMEAD RANCH PKY	63.9	53.7	53.7	64.6	5	14	46	144	456	1,442
85	28342	PERRIS BLVD	71.2	61.9	66.0	72.7	29	93	294	931	2,944	9,310
86	28343	PERRIS BLVD	70.8	61.7	66.0	72.5	28	89	281	889	2,812	8,891
87	28344	EUCALYPTUS AVE	65.3	54.7	50.5	65.8	6	19	60	190	601	1,901
88	28345	EUCALYPTUS AVE	64.0	52.5	47.3	64.4	4	14	44	138	435	1,377
89	28347	N PERRIS BLVD	69.8	61.0	63.9	71.2	21	66	208	659	2,084	6,591

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

90	28348	NANDINA AVE	62.1	55.8	59.1	64.5	4	14	45	141	446	1,409
91	28349	PERRIS BLVD	70.7	61.5	65.8	72.3	27	85	269	849	2,685	8,491
92	28350	COTTONWOOD AVE	64.3	52.9	51.6	64.8	5	15	48	151	477	1,510
93	28351	COTTONWOOD AVE	62.9	51.9	47.8	63.4	3	11	35	109	346	1,094
94	28354	PERRIS BLVD	71.0	61.9	66.2	72.6	29	91	288	910	2,877	9,099
95	28360	PERRIS BLVD	70.8	62.2	66.1	72.5	28	89	281	889	2,812	8,891
96	28361	KRAMERIA AVE	65.7	57.6	62.3	67.8	10	30	95	301	953	3,013
97	28362	PERRIS BLVD	71.6	62.2	65.5	72.9	31	97	308	975	3,083	9,749
98	28363	PERRIS BLVD	70.4	60.4	60.9	71.3	21	67	213	674	2,133	6,745
99	28364	PERRIS BLVD	69.5	60.6	64.9	71.2	21	66	208	659	2,084	6,591
100	28365	IRIS AVE	68.0	58.5	60.1	69.0	13	40	126	397	1,256	3,972
101	28366	IRIS AVE	67.2	57.9	61.3	68.6	11	36	115	362	1,145	3,622
102	28373	COTTONWOOD AVE	57.3	46.8	47.9	58.1	1	3	10	32	102	323
103	28383	PERRIS BLVD	69.3	60.5	65.4	71.2	21	66	208	659	2,084	6,591
104	28384	JOHN F KENNEDY DR	69.3	57.4	58.0	69.8	15	48	151	477	1,510	4,775
105	28385	JOHN F KENNEDY DR	68.8	57.3	56.3	69.3	13	43	135	426	1,346	4,256
106	28386	PERRIS BLVD	69.6	60.6	65.5	71.4	22	69	218	690	2,183	6,902
107	28387	CACTUS AVE	69.6	59.1	55.1	70.1	16	51	162	512	1,618	5,116
108	28388	CACTUS AVE	69.6	59.0	55.4	70.1	16	51	162	512	1,618	5,116
109	28389	ALESSANDRO BLVD	68.8	58.7	57.9	69.5	14	45	141	446	1,409	4,456
110	28390	ALESSANDRO BLVD	68.4	57.7	56.5	69.0	13	40	126	397	1,256	3,972
111	28393	IRONWOOD AVE	63.1	52.5	53.2	63.8	4	12	38	120	379	1,199
112	28396	KITCHING ST	61.4	51.6	45.4	61.9	2	8	24	77	245	774
113	28397	IRIS AVE	67.5	58.4	59.8	68.7	12	37	117	371	1,172	3,707
114	28399	KITCHING ST	61.9	52.0	41.8	62.4	3	9	27	87	275	869
115	28400	ALESSANDRO BLVD	68.4	57.7	56.5	69.0	13	40	126	397	1,256	3,972
116	28401	KITCHING ST	61.8	51.6	46.4	62.3	3	8	27	85	269	849
117	28402	KITCHING ST	54.7	43.7	41.9	55.2	1	2	5	17	52	166
118	28424	KITCHING ST	60.6	49.1	45.5	61.0	2	6	20	63	199	629
119	28425	KITCHING ST	59.2	47.6	41.4	59.5	1	4	14	45	141	446
120	28426	COTTONWOOD AVE	62.3	50.8	44.2	62.7	3	9	29	93	294	931
121	28446	HEACOCK ST	68.5	58.7	60.1	69.5	14	45	141	446	1,409	4,456
122	28447	HEACOCK ST	67.2	57.7	59.5	68.3	11	34	107	338	1,069	3,380
123	28448	COTTONWOOD AVE	65.0	53.9	51.6	65.5	6	18	56	177	561	1,774
124	28449	COTTONWOOD AVE	65.6	53.7	55.9	66.3	7	21	67	213	674	2,133
125	28450	HEACOCK ST	69.9	59.3	58.5	70.6	18	57	182	574	1,815	5,741
126	28451	IRONWOOD AVE	64.1	53.7	53.8	64.8	5	15	48	151	477	1,510
127	28452	IRONWOOD AVE	64.4	53.3	47.7	64.8	5	15	48	151	477	1,510
128	28453	HEACOCK ST	66.7	57.5	58.6	67.8	10	30	95	301	953	3,013
129	28454	HEACOCK ST	66.6	57.9	59.6	67.9	10	31	97	308	975	3,083
130	28455	EUCALYPTUS AVE	63.3	53.2	47.9	63.8	4	12	38	120	379	1,199
131	28458	HEACOCK ST	67.0	58.5	61.4	68.5	11	35	112	354	1,119	3,540
132	28459	SUNNYMEAD BLVD	58.9	47.4	45.8	59.4	1	4	14	44	138	435
133	28460	SUNNYMEAD BLVD	60.5	49.6	52.0	61.4	2	7	22	69	218	690
134	28461	HEACOCK ST	67.4	58.6	60.2	68.6	11	36	115	362	1,145	3,622
135	28462	HEACOCK ST	67.7	58.7	59.1	68.7	12	37	117	371	1,172	3,707
136	28463	HEACOCK ST	70.0	60.9	62.8	71.2	21	66	208	659	2,084	6,591
137	28464	HEACOCK ST	70.0	60.0	62.6	71.1	20	64	204	644	2,037	6,441
138	28465	ALESSANDRO BLVD	69.6	58.7	57.7	70.2	17	52	166	524	1,656	5,236
139	28466	ALESSANDRO BLVD	70.8	60.2	60.9	71.5	22	71	223	706	2,233	7,063

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

140	28467	IRONWOOD AVE	63.2	52.1	46.4	63.6	4	11	36	115	362	1,145
141	28468	MANZANITA AVE	55.4	45.1	39.6	55.9	1	2	6	19	62	195
142	28469	HEACOCK ST	65.6	55.7	54.4	66.3	7	21	67	213	674	2,133
143	28470	SUNNYMEAD RANCH PKY	63.8	53.4	51.5	64.4	4	14	44	138	435	1,377
144	28471	HEACOCK ST	70.2	61.8	64.3	71.7	23	74	234	740	2,339	7,396
145	28472	MEYER ST	68.9	59.0	60.3	69.9	15	49	155	489	1,545	4,886
146	28473	N WEBSTER AVE	69.0	60.3	61.9	70.2	17	52	166	524	1,656	5,236
147	28482	HEACOCK ST	71.5	61.0	62.5	72.3	27	85	269	849	2,685	8,491
148	28483	JOHN F KENNEDY DR	67.9	56.4	56.1	68.4	11	35	109	346	1,094	3,459
149	28489	CACTUS AVE	69.6	59.0	55.1	70.1	16	51	162	512	1,618	5,116
150	28490	CACTUS AVE	75.4	63.3	64.6	76.0	63	199	629	1,991	6,295	19,905
151	28491	INDIAN ST	60.4	51.2	47.3	61.0	2	6	20	63	199	629
152	28492	INDIAN ST	59.8	49.6	44.3	60.3	2	5	17	54	169	536
153	28493	INDIAN ST	62.0	50.9	48.1	62.5	3	9	28	89	281	889
154	28494	INDIAN ST	60.4	50.6	50.0	61.2	2	7	21	66	208	659
155	28495	INDIAN ST	57.7	48.5	41.7	58.3	1	3	11	34	107	338
156	28496	INDIAN ST	63.3	52.4	48.5	63.7	4	12	37	117	371	1,172
157	28497	INDIAN ST	61.9	52.0	48.5	62.5	3	9	28	89	281	889
158	28507	INDIAN AVE	62.9	52.7	46.8	63.4	3	11	35	109	346	1,094
159	28534	GRAHAM ST	59.3	47.5	39.1	59.6	1	5	14	46	144	456
160	28537	GRAHAM ST	58.2	46.9	42.4	58.6	1	4	11	36	115	362
161	28538	GRAHAM ST	63.2	51.5	53.3	63.9	4	12	39	123	388	1,227
162	28539	COTTONWOOD AVE	66.5	54.4	56.4	67.1	8	26	81	256	811	2,564
163	28540	EUCALYPTUS AVE	62.5	53.1	47.8	63.1	3	10	32	102	323	1,021
164	28541	GRAHAM ST	62.1	51.9	52.4	62.9	3	10	31	97	308	975
165	28542	ALESSANDRO BLVD	71.2	60.4	62.1	72.0	25	79	251	792	2,506	7,924
166	28551	IRONWOOD AVE	65.6	54.7	57.4	66.5	7	22	71	223	706	2,233
167	28553	MEYER ST	68.9	59.0	60.3	69.9	15	49	155	489	1,545	4,886
168	28558	RIVERSIDE DR	61.1	56.7	65.7	67.4	9	27	87	275	869	2,748
169	28559	CACTUS AVE	75.3	65.8	71.3	77.1	81	256	811	2,564	8,109	25,643
170	28674	ELSWORTH ST	61.0	55.8	56.0	63.1	3	10	32	102	323	1,021
171	28675	EUCALYPTUS AVE	66.0	58.3	60.1	67.5	9	28	89	281	889	2,812
172	28676	EUCALYPTUS AVE	61.7	50.0	49.5	62.2	3	8	26	83	262	830
173	28678	ELSWORTH ST	61.4	54.7	61.3	64.8	5	15	48	151	477	1,510
174	28679	COTTONWOOD AVE	59.1	48.3	51.1	60.1	2	5	16	51	162	512
175	28680	COTTONWOOD AVE	62.4	54.5	59.9	64.8	5	15	48	151	477	1,510
176	28685	ELSWORTH ST	63.4	55.0	59.5	65.3	5	17	54	169	536	1,694
177	28686	ALESSANDRO BLVD	70.7	60.3	63.2	71.7	23	74	234	740	2,339	7,396
178	28687	ALESSANDRO BLVD	70.7	60.7	64.7	72.0	25	79	251	792	2,506	7,924
179	28688	ELSWORTH ST	64.3	55.4	60.9	66.3	7	21	67	213	674	2,133
180	28689	CACTUS AVE	75.3	65.9	71.6	77.2	83	262	830	2,624	8,298	26,240
181	28692	MEMORIAL WAY	66.5	56.9	55.5	67.3	8	27	85	269	849	2,685
182	28693	EUCALYPTUS AVE	66.8	59.2	61.0	68.4	11	35	109	346	1,094	3,459
183	28703	TOWN CIR	64.5	57.3	60.7	66.5	7	22	71	223	706	2,233
184	28729	PIGEON PASS RD	70.6	59.7	57.6	71.2	21	66	208	659	2,084	6,591
185	28730	PIGEON PASS RD	68.7	58.7	56.9	69.4	14	44	138	435	1,377	4,355
186	28731	IRONWOOD AVE	66.4	54.9	57.3	67.2	8	26	83	262	830	2,624
187	28732	FREDERICK ST	69.7	59.7	61.7	70.7	19	59	186	587	1,858	5,874
188	28733	CENTERPOINT DR	64.1	53.5	52.3	64.7	5	15	47	148	467	1,476
189	28737	PIGEON PASS RD	68.5	57.4	55.3	69.0	13	40	126	397	1,256	3,972

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

190	28738	PIGEON PASS RD	61.0	49.9	47.2	61.5	2	7	22	71	223	706
191	28739	PIGEON PASS RD	69.7	58.6	56.3	70.2	17	52	166	524	1,656	5,236
192	28740	FREDERICK ST	67.4	57.0	60.2	68.5	11	35	112	354	1,119	3,540
193	28742	PIGEON PASS RD	56.2	50.6	46.6	57.6	1	3	9	29	91	288
194	28743	FREDERICK ST	68.5	57.9	60.4	69.5	14	45	141	446	1,409	4,456
195	28744	FREDERICK ST	67.0	56.6	58.0	67.9	10	31	97	308	975	3,083
196	28751	FREDERICK ST	65.1	55.3	57.7	66.2	7	21	66	208	659	2,084
197	28760	PIGEON PASS RD	55.2	49.2	44.6	56.5	1	2	7	22	71	223
198	28775	EUCALYPTUS AVE	66.9	59.3	62.9	68.9	12	39	123	388	1,227	3,881
199	28776	EUCALYPTUS AVE	68.4	61.0	64.8	70.5	18	56	177	561	1,774	5,610
200	28781	ALESSANDRO BLVD	72.6	63.6	70.1	74.8	48	151	477	1,510	4,775	15,100
201	28789	E ALESSANDRO BLVD	74.4	65.4	70.7	76.3	67	213	674	2,133	6,745	21,329
202	28808	CACTUS AVE	75.3	65.3	71.0	77.0	79	251	792	2,506	7,924	25,059
203	28815	DAY ST	62.5	54.0	60.2	64.9	5	15	49	155	489	1,545
204	28816	DAY ST	61.6	53.3	56.9	63.3	3	11	34	107	338	1,069
205	28817	DAY ST	59.1	54.4	58.7	62.6	3	9	29	91	288	910
206	28823	BOX SPRINGS RD	67.3	55.4	58.0	68.0	10	32	100	315	998	3,155
207	28829	BOX SPRINGS RD	68.0	58.0	59.6	69.0	13	40	126	397	1,256	3,972
208	32731	BOX SPRINGS RD	68.6	58.6	59.9	69.5	14	45	141	446	1,409	4,456
209	34467	E ALESSANDRO BLVD	73.7	64.7	70.2	75.6	57	182	574	1,815	5,741	18,154
210	34564	HEMLOCK AVE	65.1	56.9	58.4	66.5	7	22	71	223	706	2,233
211	36199	IRONWOOD AVE	65.6	54.7	57.4	66.5	7	22	71	223	706	2,233
212	36202	PERRIS BLVD	69.7	59.6	60.1	70.5	18	56	177	561	1,774	5,610
213	36241	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
214	36242	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
215	36243	GILMAN SPRINGS RD	73.7	65.0	71.3	76.0	63	199	629	1,991	6,295	19,905
216	36244	GILMAN SPRINGS RD	73.7	64.5	70.6	75.8	60	190	601	1,901	6,011	19,009
217	36245	JACK RABBIT TRL	61.7	56.3	63.8	66.3	7	21	67	213	674	2,133
218	36246	ALESSANDRO BLVD	63.8	53.9	52.8	64.5	4	14	45	141	446	1,409
219	36247	REDLANDS BLVD	71.6	63.1	63.0	72.6	29	91	288	910	2,877	9,099
220	36248	VIA DEL LAGO	63.0	53.7	56.2	64.2	4	13	42	132	416	1,315
221	36249	IRIS AVE	72.1	61.9	63.6	73.0	32	100	315	998	3,155	9,976
222	36930	IRIS AVE	72.0	61.9	63.6	73.0	32	100	315	998	3,155	9,976
223	37189	MORENO BEACH DR	67.8	58.6	57.4	68.6	11	36	115	362	1,145	3,622
224	37192	ELSWORTH ST	63.4	55.0	59.5	65.3	5	17	54	169	536	1,694
225	41042	HIDDEN SPRINGS DR	49.7	40.5	33.3	50.3	0	1	2	5	17	54
226	41043	DRACAEA AVE	53.2	43.8	38.1	53.8	0	1	4	12	38	120
227	41044	DRACAEA AVE	54.4	44.6	41.4	55.0	1	2	5	16	50	158
228	41045	DRACAEA AVE	56.1	45.7	39.5	56.6	1	2	7	23	72	229
229	41046	DRACAEA AVE	55.6	44.8	39.0	56.1	1	2	6	20	64	204
230	41047	DRACAEA AVE	57.5	45.8	39.4	57.8	1	3	10	30	95	301
231	41048	DRACAEA AVE	59.7	49.0	46.6	60.2	2	5	17	52	166	524
232	41049	KITCHING ST	62.3	51.2	48.9	62.8	3	10	30	95	301	953
233	41050	LASSELLE ST	64.3	53.5	53.1	64.9	5	15	49	155	489	1,545
234	41051	PERRIS BLVD	71.2	61.9	66.0	72.7	29	93	294	931	2,944	9,310
235	41052	INDIAN ST	57.4	48.0	41.3	57.9	1	3	10	31	97	308
236	41053	HEACOCK ST	68.4	58.7	60.2	69.4	14	44	138	435	1,377	4,355
237	41054	GRAHAM ST	57.6	46.3	39.8	57.9	1	3	10	31	97	308
238	41055	FREDERICK ST	68.7	58.4	60.6	69.6	14	46	144	456	1,442	4,560
239	41056	RECHE VISTA DR	69.4	59.7	59.8	70.2	17	52	166	524	1,656	5,236

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

240	41057	VIA DEL LAGO	58.8	49.5	52.0	60.0	2	5	16	50	158	500
241	41059	ALTA CALLE	62.8	53.5	55.0	63.8	4	12	38	120	379	1,199
242	41060	ALTA CALLE	62.8	53.5	55.0	63.8	4	12	38	120	379	1,199
243	41061	ALTA CALLE	62.7	53.6	53.6	63.7	4	12	37	117	371	1,172
244	41062	LAKE PERRIS DR	61.3	52.8	53.9	62.5	3	9	28	89	281	889
245	41064	LAKE PERRIS DR	59.2	50.2	51.0	60.3	2	5	17	54	169	536
246	41065	EVANS RD	69.7	59.7	60.9	70.6	18	57	182	574	1,815	5,741
247	41066	LASSELLE ST	69.7	59.7	60.9	70.6	18	57	182	574	1,815	5,741
248	41067	VIA DEL LAGO	60.9	51.6	54.1	62.1	3	8	26	81	256	811
249	41068	LAKE PERRIS DR	57.1	48.1	48.9	58.2	1	3	10	33	104	330
250	41069	TOWNGATE AVE	64.7	55.4	55.8	65.6	6	18	57	182	574	1,815
251	41070	TOWNGATE AVE	64.7	55.4	55.8	65.6	6	18	57	182	574	1,815
252	41071	OLD 215 FRONTAGE RD	64.3	57.3	60.4	66.3	7	21	67	213	674	2,133
253	41072	OLD 215 FRONTAGE RD	60.3	52.1	55.3	62.0	3	8	25	79	251	792
254	41073	COTTONWOOD AVE	57.9	53.7	57.0	61.3	2	7	21	67	213	674
255	44344	SUNNYMEAD RANCH PKY	52.9	44.2	36.3	53.5	0	1	4	11	35	112
256	44345	OLD LAKE DR	63.5	52.9	51.3	64.1	4	13	41	129	406	1,285
257	44346	SUNNYMEAD RANCH PKY	59.1	46.8	42.9	59.4	1	4	14	44	138	435
258	44347	LAKE VISTA RD	53.4	41.4	41.7	53.9	0	1	4	12	39	123
259	44348	HEACOCK ST	64.9	55.7	54.5	65.7	6	19	59	186	587	1,858
260	44355	COTTONWOOD AVE	54.5	44.3	33.3	54.9	0	2	5	15	49	155
261	44356	MORRISON ST	57.9	48.8	47.5	58.7	1	4	12	37	117	371
262	44357	CANYON SPRINGS PKY	63.7	53.0	52.5	64.3	4	13	43	135	426	1,346
263	44358	MEMORIAL WAY	68.1	59.2	60.4	69.2	13	42	132	416	1,315	4,159
264	44359	GATEWAY DR	64.9	56.7	59.4	66.4	7	22	69	218	690	2,183
265	44360	LASSELLE ST	69.7	59.7	60.9	70.6	18	57	182	574	1,815	5,741
266	44361	KRAMERIA AVE	64.4	55.4	59.7	66.1	6	20	64	204	644	2,037
267	44362	KRAMERIA AVE	58.6	47.5	46.8	59.2	1	4	13	42	132	416
268	44464	ALESSANDRO BLVD	72.1	62.9	69.1	74.2	42	132	416	1,315	4,159	13,151
269	44465	N PERRIS BLVD	69.8	61.0	63.9	71.2	21	66	208	659	2,084	6,591
270	44807	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
271	44812	TOWN CIR	64.1	53.6	52.3	64.8	5	15	48	151	477	1,510
272	44813	TOWN CIR	64.0	53.5	52.2	64.6	5	14	46	144	456	1,442
273	44814	TOWN CIR	64.1	53.6	52.3	64.8	5	15	48	151	477	1,510
274	44816	TOWN CIR	64.5	57.3	60.7	66.5	7	22	71	223	706	2,233
275	44823	LASSELLE ST	69.5	60.0	61.4	70.5	18	56	177	561	1,774	5,610
276	44826	CACTUS AVE	68.8	57.5	54.6	69.2	13	42	132	416	1,315	4,159
277	44827	CACTUS AVE	68.8	57.8	54.4	69.2	13	42	132	416	1,315	4,159
278	44828	STREET E				#VALUE!						
279	44829	EUCALYPTUS AVE				#VALUE!						
280	44830	KRAMERIA AVE				#VALUE!						
281	44831	ALESSANDRO BLVD	68.1	58.4	57.5	68.9	12	39	123	388	1,227	3,881
282	44832	LASSELLE ST	69.7	59.7	60.9	70.6	18	57	182	574	1,815	5,741
283	44833	QUINCY ST				#VALUE!						
284	44834	COTTONWOOD AVE	64.1	51.9	49.1	64.4	4	14	44	138	435	1,377
285	46116	N PERRIS BLVD	69.8	61.0	63.9	71.2	21	66	208	659	2,084	6,591
286	46264	SAN MICHELLE AV	49.2	39.8	38.6	50.0	0	1	2	5	16	50
287	46868	HEACOCK ST	69.4	59.7	61.0	70.4	17	55	173	548	1,734	5,482
288	48026	GRAEBER ST	58.9	54.4	64.5	65.9	6	19	62	195	615	1,945
289	48027	IRIS AVE	68.3	59.0	65.0	70.3	17	54	169	536	1,694	5,358

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

290	48028	GRAEBER ST	57.6	52.4	63.1	64.5	4	14	45	141	446	1,409
291	48029	SAN MICHELLE AV	49.2	39.8	38.6	50.0	0	1	2	5	16	50
292	48030	GRAEBER ST	59.2	53.8	63.5	65.2	5	17	52	166	524	1,656
293	48031	RIVERSIDE DR	54.2	48.2	52.4	57.0	1	3	8	25	79	251
294	48294	LASSELLE ST	56.1	44.9	35.9	56.4	1	2	7	22	69	218
295	48295	RECHE CANYON RD	67.8	59.4	60.1	68.9	12	39	123	388	1,227	3,881
296	48346	EUCALYPTUS AVE	66.9	59.4	63.3	69.0	13	40	126	397	1,256	3,972
297	48348	INDIAN ST	61.4	51.2	51.3	62.1	3	8	26	81	256	811
298	48349	INDIAN ST	61.3	51.1	51.3	62.1	3	8	26	81	256	811
299	48350	NANDINA AVE	60.4	55.9	59.1	63.6	4	11	36	115	362	1,145
300	48351	INDIAN ST	61.5	51.4	51.4	62.3	3	8	27	85	269	849
301	48352	INDIAN ST	63.0	52.0	52.5	63.6	4	11	36	115	362	1,145
302	48353	LOCUST AVE	65.0	57.1	56.5	66.2	7	21	66	208	659	2,084
303	48358	E OLEANDER AVE	51.9	44.8	44.7	53.3	0	1	3	11	34	107
304	48366	N PERRIS BLVD	70.7	62.2	64.6	72.1	26	81	256	811	2,564	8,109
305	51959	HEACOCK ST	70.0	60.9	62.8	71.2	21	66	208	659	2,084	6,591
306	51963	HEACOCK ST	69.6	60.5	62.4	70.8	19	60	190	601	1,901	6,011
307	51964	NASON ST	66.4	55.9	56.9	67.2	8	26	83	262	830	2,624
308	51965	NASON ST	64.7	57.8	63.0	67.4	9	27	87	275	869	2,748
309	52667	REDLANDS BLVD	69.8	61.5	62.1	71.0	20	63	199	629	1,991	6,295
310	52670	REDLANDS BLVD	69.7	61.7	62.7	71.0	20	63	199	629	1,991	6,295
311	52672	MORENO BEACH DR	67.6	57.7	59.4	68.6	11	36	115	362	1,145	3,622
312	52673	REDLANDS BLVD	69.7	61.7	62.7	71.0	20	63	199	629	1,991	6,295
313	52675	REDLANDS BLVD	69.8	61.5	62.1	71.0	20	63	199	629	1,991	6,295
314	52679	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
315	52682	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
316	52714	NASON ST	64.7	57.8	63.0	67.4	9	27	87	275	869	2,748
317	52715	NASON ST	65.9	57.0	59.4	67.2	8	26	83	262	830	2,624
318	53302	N PERRIS BLVD	68.3	58.1	57.1	69.0	13	40	126	397	1,256	3,972
319	53307	INDIAN ST	62.8	51.8	52.4	63.5	4	11	35	112	354	1,119
320	53313	OLD I-215 FRONTAGE RD	67.1	58.9	62.2	68.8	12	38	120	379	1,199	3,793
321	53490	HEACOCK ST	66.9	58.2	59.9	68.2	10	33	104	330	1,045	3,303
322	53491	PERRIS BLVD	70.8	61.7	66.0	72.5	28	89	281	889	2,812	8,891
323	53492	REDLANDS BLVD	70.2	61.9	62.5	71.4	22	69	218	690	2,183	6,902
324	54317	HEMLOCK AVE	60.7	52.1	49.7	61.6	2	7	23	72	229	723
325	54318	GRAHAM ST	61.9	50.1	41.7	62.3	3	8	27	85	269	849
326	54744	DAY ST	69.2	60.3	63.3	70.6	18	57	182	574	1,815	5,741
327	56560	PIGEON PASS RD	53.5	46.7	0.0	54.3	0	1	4	13	43	135
328	56965	N WEBSTER AVE	69.8	61.1	62.7	71.1	20	64	204	644	2,037	6,441
329	56967	INDIAN ST	62.9	51.9	52.4	63.5	4	11	35	112	354	1,119
330	56969	N PERRIS BLVD	70.6	60.4	59.4	71.3	21	67	213	674	2,133	6,745
331	56974	GATEWAY DR	64.9	56.7	59.4	66.4	7	22	69	218	690	2,183
332	56976	RECHE CANYON RD	62.5	54.1	54.8	63.7	4	12	37	117	371	1,172
333	56977	INDIAN ST	65.7	57.2	63.4	68.1	10	32	102	323	1,021	3,228
334	56978	KRAMERIA AVE	61.0	50.0	54.8	62.2	3	8	26	83	262	830
335	56979	HEACOCK ST	69.6	60.5	62.4	70.8	19	60	190	601	1,901	6,011
336	56980	KRAMERIA AVE				#VALUE!						
337	56981	EVANS RD	69.3	59.3	60.5	70.2	17	52	166	524	1,656	5,236
338	57031	DAY ST	64.9	57.6	59.1	66.5	7	22	71	223	706	2,233
339	57032	OLD I-215 FRONTAGE RD	67.1	58.9	62.2	68.8	12	38	120	379	1,199	3,793

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

340	57033	HEACOCK ST	70.7	60.5	61.9	71.6	23	72	229	723	2,285	7,227
341	57034	INDIAN ST	60.7	49.7	0.0	61.0	2	6	20	63	199	629
342	57035	GENTIAN AVE	60.7	49.5	42.5	61.0	2	6	20	63	199	629
343	57036	PERRIS BLVD	70.5	61.0	65.6	72.1	26	81	256	811	2,564	8,109
344	57037	GENTIAN AVE	65.4	54.2	47.3	65.8	6	19	60	190	601	1,901
345	57038	GENTIAN AVE	67.7	56.5	49.5	68.0	10	32	100	315	998	3,155
346	57041	NASON ST	64.7	57.8	63.0	67.4	9	27	87	275	869	2,748
347	57042	IRIS AVE	70.4	60.3	62.0	71.4	22	69	218	690	2,183	6,902
348	57043	OLIVER ST	63.7	53.4	0.0	64.1	4	13	41	129	406	1,285
349	57044	SAN MICHELLE AV	49.2	39.8	38.6	50.0	0	1	2	5	16	50
350	57045	OLIVER ST	64.6	54.4	0.0	65.0	5	16	50	158	500	1,581
351	57046	CACTUS AVE	65.1	53.0	50.5	65.5	6	18	56	177	561	1,774
352	57047	ALESSANDRO BLVD	67.7	56.0	56.0	68.3	11	34	107	338	1,069	3,380
353	57048	OLIVER ST	62.5	51.5	56.3	63.7	4	12	37	117	371	1,172
354	57049	CACTUS AVE	65.1	53.0	50.5	65.5	6	18	56	177	561	1,774
355	57050	JOHN F KENNEDY DR	64.5	57.0	59.3	66.2	7	21	66	208	659	2,084
356	57051	ALESSANDRO BLVD	61.0	51.4	49.3	61.7	2	7	23	74	234	740
357	57052	CACTUS AVE	68.4	56.3	53.7	68.8	12	38	120	379	1,199	3,793
358	57053	QUINCY ST	61.0	0.0	0.0	61.0	2	6	20	63	199	629
359	57054	COTTONWOOD AVE	64.1	51.9	49.1	64.4	4	14	44	138	435	1,377
360	57055	QUINCY ST				#VALUE!						
361	57056	QUINCY ST				#VALUE!						
362	57057	REDLANDS BLVD	68.9	60.8	62.1	70.2	17	52	166	524	1,656	5,236
363	57059	EUCALYPTUS AVE	65.3	59.3	65.1	68.8	12	38	120	379	1,199	3,793
364	57060	PERRIS BLVD	71.3	62.0	66.1	72.8	30	95	301	953	3,013	9,527
365	57062	MORRISON ST				#VALUE!						
366	57063	ALESSANDRO BLVD				#VALUE!						
367	57064	ALESSANDRO BLVD				#VALUE!						
368	57065	REDLANDS BLVD	68.5	60.5	61.9	69.9	15	49	155	489	1,545	4,886
369	57066	CACTUS AVE				#VALUE!						
370	57067	THEODORE AVE	61.4	59.0	65.0	67.2	8	26	83	262	830	2,624
371	57068	EUCALYPTUS AVE				#VALUE!						
372	57069	REDLANDS BLVD	68.9	60.8	62.1	70.2	17	52	166	524	1,656	5,236
373	57071	STREET F				#VALUE!						
374	57072	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
375	57073	THEODORE AVE	61.4	59.0	65.0	67.2	8	26	83	262	830	2,624
376	57074	STREET F				#VALUE!						
377	57075	THEODORE AVE	61.5	59.2	65.1	67.4	9	27	87	275	869	2,748
378	57076	GRAHAM ST	61.9	50.1	41.7	62.3	3	8	27	85	269	849
379	57077	IRONWOOD AVE	64.0	54.7	53.6	64.8	5	15	48	151	477	1,510
380	57078	REDLANDS BLVD	69.7	61.7	62.7	71.0	20	63	199	629	1,991	6,295
381	57079	EUCALYPTUS AVE	63.9	63.6	68.8	70.9	19	62	195	615	1,945	6,151
382	57080	THEODORE AVE	58.8	56.5	62.4	64.7	5	15	47	148	467	1,476
383	57081	EUCALYPTUS AVE	63.9	63.6	68.8	70.9	19	62	195	615	1,945	6,151
384	57082	EUCALYPTUS AVE				#VALUE!						
385	57083	STREET E				#VALUE!						
386	57084	THEODORE AVE	60.9	58.5	64.5	66.7	7	23	74	234	740	2,339
387	57085	STREET E				#VALUE!						
388	57086	REDLANDS BLVD	68.9	60.9	61.9	70.2	17	52	166	524	1,656	5,236
389	57087	ENCELIA AVE				#VALUE!						

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

390	57088	IRONWOOD AVE	56.3	41.2	41.7	56.6	1	2	7	23	72	229
391	57089	QUINCY ST				#VALUE!						
392	57091	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
393	57093	IRONWOOD AVE	65.5	54.4	48.7	65.9	6	19	62	195	615	1,945
394	57095	ELDER AVE	60.7	53.5	0.0	61.5	2	7	22	71	223	706
395	57096	ELDER AVE	59.4	48.4	0.0	59.7	1	5	15	47	148	467
396	57097	LOCUST AVE	65.0	57.1	56.5	66.2	7	21	66	208	659	2,084
397	57098	QUINCY ST				#VALUE!						
398	57100	IRONWOOD AVE	46.9	38.5	29.2	47.5	0	0	1	3	9	28
399	57101	ELDER AVE	60.7	53.5	0.0	61.5	2	7	22	71	223	706
400	57127	RECHE VISTA DR	69.4	59.7	59.8	70.2	17	52	166	524	1,656	5,236
401	57222	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
402	57223	EUCALYPTUS AVE				#VALUE!						
403	57282	PIGEON PASS RD	53.5	46.7	0.0	54.3	0	1	4	13	43	135
404	57495	KITCHING ST	63.7	54.6	48.7	64.3	4	13	43	135	426	1,346
405	57513	IRONWOOD AVE	66.4	54.9	57.3	67.2	8	26	83	262	830	2,624
406	57514	HEACOCK ST	71.3	61.2	63.8	72.3	27	85	269	849	2,685	8,491
407	58231	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
408	58345	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
409	58347	CACTUS AVE				#VALUE!						
410	58348	JOHN F KENNEDY DR	67.8	60.3	62.6	69.5	14	45	141	446	1,409	4,456
411	58350	STREET F				#VALUE!						
412	58351	PIGEON PASS RD	55.2	49.2	44.6	56.5	1	2	7	22	71	223
413	58352	GATEWAY DR	64.9	56.7	59.4	66.4	7	22	69	218	690	2,183
414	58353	TOWN CIR	64.5	57.3	60.7	66.5	7	22	71	223	706	2,233
415	58354	VIA DEL LAGO	63.0	53.7	56.2	64.2	4	13	42	132	416	1,315
416	58395	STREET E				#VALUE!						
417	58396	REDLANDS BLVD	71.6	63.1	63.0	72.6	29	91	288	910	2,877	9,099
418	58403	RECHE VISTA DR	69.4	59.7	59.8	70.2	17	52	166	524	1,656	5,236
419	58404	HIGHLAND BLVD	55.0	48.8	48.9	56.7	1	2	7	23	74	234
420	58405	IRONWOOD AVE	46.9	38.5	29.2	47.5	0	0	1	3	9	28
421	58406	THEODORE AVE	57.9	52.5	52.7	59.9	2	5	15	49	155	489
422	58407	QUINCY ST				#VALUE!						
423	58408	IRONWOOD AVE	56.3	41.2	41.7	56.6	1	2	7	23	72	229
424	58409	IRONWOOD AVE	56.3	41.2	41.7	56.6	1	2	7	23	72	229
425	58411	CACTUS AVE	65.1	53.0	50.5	65.5	6	18	56	177	561	1,774
426	58412	GRAEBER ST	58.9	54.4	64.5	65.9	6	19	62	195	615	1,945
427	58413	CACTUS AVE	65.1	53.0	50.5	65.5	6	18	56	177	561	1,774
428	58414	OLIVER ST	64.6	54.4	0.0	65.0	5	16	50	158	500	1,581
429	58415	CACTUS AVE	68.4	56.3	53.7	68.8	12	38	120	379	1,199	3,793
430	58416	CACTUS AVE	68.4	56.3	53.7	68.8	12	38	120	379	1,199	3,793
431	58417	IRIS AVE	72.0	61.9	63.6	73.0	32	100	315	998	3,155	9,976
432	58419	ALTA CALLE	62.8	53.5	55.0	63.8	4	12	38	120	379	1,199
433	58420	IRIS AVE	72.0	61.9	63.6	73.0	32	100	315	998	3,155	9,976
434	58421	NASON ST	64.7	57.8	63.0	67.4	9	27	87	275	869	2,748
435	58422	LAKE PERRIS DR	61.3	52.3	53.1	62.4	3	9	27	87	275	869
436	58423	ALTA CALLE	62.8	53.5	55.0	63.8	4	12	38	120	379	1,199
437	58451	EUCALYPTUS AVE				#VALUE!						
438	58452	QUINCY ST				#VALUE!						
439	58453	EUCALYPTUS AVE	65.3	59.3	65.1	68.8	12	38	120	379	1,199	3,793

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

440	58454	MORENO BEACH DR	67.0	57.2	59.6	68.1	10	32	102	323	1,021	3,228
441	58455	NASON ST	67.8	58.9	61.3	69.1	13	41	129	406	1,285	4,064
442	58456	COTTONWOOD AVE	57.3	46.8	47.9	58.1	1	3	10	32	102	323
443	58457	IRONWOOD AVE	66.6	55.7	50.0	67.0	8	25	79	251	792	2,506
444	58458	NASON ST	60.7	49.9	47.5	61.3	2	7	21	67	213	674
445	58459	MORENO BEACH DR	67.6	57.7	59.4	68.6	11	36	115	362	1,145	3,622
446	58460	NASON ST	65.5	55.7	57.0	66.5	7	22	71	223	706	2,233
447	58461	ALESSANDRO BLVD	67.7	56.0	56.0	68.3	11	34	107	338	1,069	3,380
448	58976	IRONWOOD AVE	64.0	54.7	53.6	64.8	5	15	48	151	477	1,510
449	58977	IRONWOOD AVE	63.2	52.1	46.4	63.6	4	11	36	115	362	1,145
450	58978	ALESSANDRO BLVD				#VALUE!						
451	58979	PERRIS BLVD	68.4	57.3	56.6	69.0	13	40	126	397	1,256	3,972
452	58980	PERRIS BLVD	68.0	56.9	56.2	68.6	11	36	115	362	1,145	3,622
453	58990	PERRIS BLVD	68.5	57.3	56.7	69.1	13	41	129	406	1,285	4,064
454	58991	INDIAN AVE	62.9	52.7	46.8	63.4	3	11	35	109	346	1,094
455	58992	HEACOCK ST	64.9	55.1	53.8	65.7	6	19	59	186	587	1,858
456	58994	SUNNYMEAD RANCH PKY	62.3	52.1	52.1	63.0	3	10	32	100	315	998
457	58995	PERRIS BLVD	66.6	55.5	54.8	67.2	8	26	83	262	830	2,624
458	58996	ELDER AVE	57.7	47.5	0.0	58.1	1	3	10	32	102	323
459	58997	MORENO BEACH DR	67.8	58.6	57.4	68.6	11	36	115	362	1,145	3,622
460	58998	MANZANITA AVE	55.4	45.1	39.6	55.9	1	2	6	19	62	195
461	59014	PIGEON PASS RD	56.5	50.9	46.9	57.9	1	3	10	31	97	308
462	59015	HEACOCK ST	69.2	58.5	57.8	69.8	15	48	151	477	1,510	4,775
463	59016	IRONWOOD AVE	64.0	53.6	53.8	64.8	5	15	48	151	477	1,510
464	59017	HEACOCK ST	69.1	58.4	57.7	69.7	15	47	148	467	1,476	4,666
465	59018	PIGEON PASS RD	69.7	58.6	56.3	70.2	17	52	166	524	1,656	5,236
466	59019	ELDER AVE	60.7	53.5	0.0	61.5	2	7	22	71	223	706
467	59022	GRAEBER ST	57.6	52.4	63.1	64.5	4	14	45	141	446	1,409
468	59058	PIGEON PASS RD	55.2	49.2	44.6	56.5	1	2	7	22	71	223
469	59059	HIDDEN SPRINGS DR	49.7	40.5	33.3	50.3	0	1	2	5	17	54
470	59060	BOX SPRINGS RD	67.3	55.4	58.0	68.0	10	32	100	315	998	3,155
471	59062	SUNNYMEAD RANCH PKY	52.9	44.2	36.3	53.5	0	1	4	11	35	112
472	59064	OLD LAKE DR	63.5	52.9	51.3	64.1	4	13	41	129	406	1,285
473	59066	SUNNYMEAD RANCH PKY	66.3	55.9	53.9	66.9	8	24	77	245	774	2,449
474	59069	IRONWOOD AVE	65.6	54.7	57.4	66.5	7	22	71	223	706	2,233
475	59073	COTTONWOOD AVE	57.9	53.7	57.0	61.3	2	7	21	67	213	674
476	59101	PIGEON PASS RD	70.6	59.5	57.2	71.1	20	64	204	644	2,037	6,441
477	59102	BOX SPRINGS RD	68.0	58.0	59.6	69.0	13	40	126	397	1,256	3,972
478	59432	LASSELLE ST	69.1	59.0	60.3	70.0	16	50	158	500	1,581	5,000
479	59433	KITCHING ST	63.5	54.4	48.5	64.2	4	13	42	132	416	1,315
480	59437	LASSELLE ST	69.2	57.3	57.7	69.8	15	48	151	477	1,510	4,775
481	59438	KITCHING ST	66.0	55.1	53.2	66.5	7	22	71	223	706	2,233
482	59439	GENTIAN AVE	65.3	54.1	47.2	65.7	6	19	59	186	587	1,858
483	59440	N PERRIS BLVD	69.8	61.0	63.9	71.2	21	66	208	659	2,084	6,591
484	59442	N WEBSTER AVE	69.8	61.1	62.7	71.1	20	64	204	644	2,037	6,441
485	59444	N WEBSTER AVE	69.8	61.1	62.7	71.1	20	64	204	644	2,037	6,441
486	59446	NANDINA AVE	59.8	53.5	56.9	62.2	3	8	26	83	262	830
487	59447	NANDINA AVE	62.1	55.8	59.1	64.5	4	14	45	141	446	1,409
488	59448	INDIAN ST	63.0	52.0	52.5	63.6	4	11	36	115	362	1,145
489	59449	KRAMERIA AVE	61.0	50.0	54.8	62.2	3	8	26	83	262	830

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

Line No.	Address	ADT	Peak	Off-Peak	ADT	Peak	Off-Peak	ADT	Peak	Off-Peak	ADT	Peak	Off-Peak
490	59450	KRAMERIA AVE											
491	59451	INDIAN ST	61.3	52.7	54.2	62.6	3	9	29	91	288	910	
492	59452	GENTIAN AVE	65.4	54.2	47.3	65.8	6	19	60	190	601	1,901	
493	59453	INDIAN ST	60.4	50.6	50.0	61.2	2	7	21	66	208	659	
494	59454	PERRIS BLVD	69.5	60.6	64.9	71.2	21	66	208	659	2,084	6,591	
495	59455	HEACOCK ST	66.8	59.0	61.5	68.4	11	35	109	346	1,094	3,459	
496	59458	HEACOCK ST	70.0	60.9	62.8	71.2	21	66	208	659	2,084	6,591	
497	59467	INDIAN ST	63.3	52.4	48.5	63.7	4	12	37	117	371	1,172	
498	59468	HEACOCK ST	71.5	61.0	62.5	72.3	27	85	269	849	2,685	8,491	
499	59469	CACTUS AVE	69.6	59.0	55.1	70.1	16	51	162	512	1,618	5,116	
500	59470	INDIAN ST	60.7	49.7	0.0	61.0	2	6	20	63	199	629	
501	59471	GENTIAN AVE	60.7	49.5	42.5	61.0	2	6	20	63	199	629	
502	59473	GRAHAM ST	61.9	50.1	41.7	62.3	3	8	27	85	269	849	
503	59474	HEACOCK ST	66.7	57.5	58.6	67.8	10	30	95	301	953	3,013	
504	59475	INDIAN ST	59.8	49.6	44.3	60.3	2	5	17	54	169	536	
505	59476	HEACOCK ST	69.4	59.2	60.7	70.3	17	54	169	536	1,694	5,358	
506	59477	GRAHAM ST	63.5	53.3	53.8	64.3	4	13	43	135	426	1,346	
507	59478	CACTUS AVE	75.4	63.3	64.6	76.0	63	199	629	1,991	6,295	19,905	
508	59479	COTTONWOOD AVE	65.6	53.7	55.9	66.3	7	21	67	213	674	2,133	
509	59480	GRAHAM ST	63.2	51.5	53.3	63.9	4	12	39	123	388	1,227	
510	59481	HEACOCK ST	66.3	56.7	58.5	67.3	8	27	85	269	849	2,685	
511	59482	HEMLOCK AVE	60.7	52.1	49.7	61.6	2	7	23	72	229	723	
512	59483	SUNNYMEAD BLVD	60.5	49.6	52.0	61.4	2	7	22	69	218	690	
513	59484	HEACOCK ST	66.9	58.2	59.9	68.2	10	33	104	330	1,045	3,303	
514	59486	GRAHAM ST	61.9	50.1	41.7	62.3	3	8	27	85	269	849	
515	59487	EUCALYPTUS AVE	65.1	54.0	0.0	65.4	5	17	55	173	548	1,734	
516	59488	INDIAN ST	60.3	51.2	47.3	61.0	2	6	20	63	199	629	
517	59490	EUCALYPTUS AVE	64.0	53.0	0.0	64.3	4	13	43	135	426	1,346	
518	59491	CANYON SPRINGS PKY	67.8	56.8	61.6	69.0	13	40	126	397	1,256	3,972	
519	59493	EUCALYPTUS AVE	61.6	50.6	0.0	62.0	3	8	25	79	251	792	
520	59494	COTTONWOOD AVE	65.0	53.9	51.6	65.5	6	18	56	177	561	1,774	
521	59495	INDIAN ST	54.6	44.6	41.2	55.2	1	2	5	17	52	166	
522	59543	FREDERICK ST	65.3	55.5	57.9	66.4	7	22	69	218	690	2,183	
523	59544	CACTUS AVE	75.3	65.8	71.3	77.1	81	256	811	2,564	8,109	25,643	
524	59545	ELSWORTH ST	63.4	55.5	60.3	65.6	6	18	57	182	574	1,815	
525	59546	CACTUS AVE	75.2	66.5	72.9	77.6	91	288	910	2,877	9,099	28,772	
526	59547	ELSWORTH ST	63.4	55.0	59.5	65.3	5	17	54	169	536	1,694	
527	59548	ALESSANDRO BLVD	72.6	63.6	70.1	74.8	48	151	477	1,510	4,775	15,100	
528	59549	E ALESSANDRO BLVD	73.5	64.7	70.5	75.6	57	182	574	1,815	5,741	18,154	
529	59550	OLD I-215 FRONTAGE RD	67.3	59.1	62.3	69.0	13	40	126	397	1,256	3,972	
530	59552	TOWN CIR	64.0	53.5	52.2	64.6	5	14	46	144	456	1,442	
531	59553	TOWN CIR	64.0	53.5	52.2	64.6	5	14	46	144	456	1,442	
532	59554	COTTONWOOD AVE	62.4	54.5	59.9	64.8	5	15	48	151	477	1,510	
533	59556	DAY ST	59.1	54.4	58.7	62.6	3	9	29	91	288	910	
534	59558	MEMORIAL WAY	68.1	59.2	60.4	69.2	13	42	132	416	1,315	4,159	
535	59559	CORPORATE CENTRE PL	67.8	56.8	61.6	69.0	13	40	126	397	1,256	3,972	
536	59560	TOWN CIR	64.5	57.3	60.7	66.5	7	22	71	223	706	2,233	
537	59561	TOWN CIR	64.0	53.5	52.2	64.6	5	14	46	144	456	1,442	
538	59562	FREDERICK ST	65.7	63.5	56.9	68.1	10	32	102	323	1,021	3,228	
539	59563	ELSWORTH ST	61.4	54.3	59.5	64.0	4	13	40	126	397	1,256	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

540	59564	ALESSANDRO BLVD	70.7	60.3	63.2	71.7	23	74	234	740	2,339	7,396
541	59565	EUCALYPTUS AVE	66.0	58.3	60.1	67.5	9	28	89	281	889	2,812
542	59567	ELSWORTH ST	62.3	56.9	60.4	65.1	5	16	51	162	512	1,618
543	59568	COTTONWOOD AVE	59.1	48.3	51.1	60.1	2	5	16	51	162	512
544	59569	COTTONWOOD AVE	66.5	54.4	56.4	67.1	8	26	81	256	811	2,564
545	59570	DAY ST	69.2	60.3	63.3	70.6	18	57	182	574	1,815	5,741
546	59572	CORPORATE CENTRE PL	67.8	56.8	61.6	69.0	13	40	126	397	1,256	3,972
547	59574	DAY ST	65.2	54.8	53.8	65.8	6	19	60	190	601	1,901
548	59575	CACTUS AVE	68.8	57.8	54.4	69.2	13	42	132	416	1,315	4,159
549	59576	CACTUS AVE	68.8	57.5	54.6	69.2	13	42	132	416	1,315	4,159
550	59577	COTTONWOOD AVE	59.5	48.3	42.8	59.9	2	5	15	49	155	489
551	59578	MORRISON ST	57.9	48.8	47.5	58.7	1	4	12	37	117	371
552	59579	ALESSANDRO BLVD	68.1	58.4	57.5	68.9	12	39	123	388	1,227	3,881
553	59580	LASSELLE ST	63.1	52.8	51.4	63.8	4	12	38	120	379	1,199
554	59581	KITCHING ST	61.3	49.7	43.6	61.7	2	7	23	74	234	740
555	59582	ALESSANDRO BLVD	66.3	56.5	56.1	67.1	8	26	81	256	811	2,564
556	59583	EUCALYPTUS AVE	66.3	55.9	55.3	67.0	8	25	79	251	792	2,506
557	59585	DRACAEA AVE	59.7	49.0	46.6	60.2	2	5	17	52	166	524
558	59587	LASSELLE ST	65.4	55.1	51.3	66.0	6	20	63	199	629	1,991
559	59589	CACTUS AVE	69.6	59.0	56.4	70.1	16	51	162	512	1,618	5,116
560	59590	HEACOCK ST	69.6	59.9	61.2	70.6	18	57	182	574	1,815	5,741
561	59591	ELDER AVE	60.7	53.5	0.0	61.5	2	7	22	71	223	706
562	59592	SUNNYMEAD BLVD	66.1	55.5	55.2	66.8	8	24	76	239	757	2,393
563	59593	LASSELLE ST	56.7	45.6	36.5	57.1	1	3	8	26	81	256
564	59594	EUCALYPTUS AVE	65.5	55.0	52.0	66.0	6	20	63	199	629	1,991
565	59595	EUCALYPTUS AVE	64.4	54.0	49.3	64.9	5	15	49	155	489	1,545
566	59596	SUNNYMEAD BLVD	67.6	57.7	60.7	68.8	12	38	120	379	1,199	3,793
567	59597	EUCALYPTUS AVE	65.3	54.7	50.5	65.8	6	19	60	190	601	1,901
568	59598	COTTONWOOD AVE	54.5	44.3	33.3	54.9	0	2	5	15	49	155
569	59599	MORRISON ST	59.2	50.1	48.8	60.0	2	5	16	50	158	500
570	59600	KITCHING ST	61.4	51.5	41.3	61.9	2	8	24	77	245	774
571	59601	PERRIS BLVD	70.0	61.0	65.9	71.8	24	76	239	757	2,393	7,568
572	59602	CACTUS AVE	69.6	59.1	55.1	70.1	16	51	162	512	1,618	5,116
573	59603	CACTUS AVE	69.6	59.0	55.4	70.1	16	51	162	512	1,618	5,116
574	59605	PERRIS BLVD	70.5	61.0	65.6	72.1	26	81	256	811	2,564	8,109
575	59606	GENTIAN AVE	64.2	53.0	46.1	64.6	5	14	46	144	456	1,442
576	59607	COTTONWOOD AVE	62.9	51.9	47.8	63.4	3	11	35	109	346	1,094
577	59608	PERRIS BLVD	70.5	61.3	65.5	72.1	26	81	256	811	2,564	8,109
578	59609	IRONWOOD AVE	63.0	52.5	53.2	63.8	4	12	38	120	379	1,199
579	59610	INDIAN ST	59.8	49.6	44.3	60.3	2	5	17	54	169	536
580	59611	PERRIS BLVD	68.1	58.1	58.5	68.9	12	39	123	388	1,227	3,881
581	59612	DRACAEA AVE	57.5	45.8	39.4	57.8	1	3	10	30	95	301
582	59613	HEACOCK ST	70.2	61.8	64.3	71.7	23	74	234	740	2,339	7,396
583	59614	COTTONWOOD AVE	64.3	52.9	51.6	64.8	5	15	48	151	477	1,510
584	59615	LOCUST AVE	65.0	57.1	56.5	66.2	7	21	66	208	659	2,084
585	59616	PERRIS BLVD	70.8	61.7	66.0	72.5	28	89	281	889	2,812	8,891
586	59618	SUNNYMEAD BLVD	58.8	49.0	48.5	59.6	1	5	14	46	144	456
587	59620	PERRIS BLVD	71.0	61.9	66.2	72.6	29	91	288	910	2,877	9,099
588	59621	EUCALYPTUS AVE	64.0	52.5	47.3	64.4	4	14	44	138	435	1,377
589	59622	INDIAN ST	58.0	48.8	42.0	58.6	1	4	11	36	115	362

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

590	59623	DRACAEA AVE	55.6	44.8	39.0	56.1	1	2	6	20	64	204
591	59624	ALESSANDRO BLVD	68.8	58.7	57.9	69.5	14	45	141	446	1,409	4,456
592	59628	RECHE VISTA DR	69.4	59.7	59.8	70.2	17	52	166	524	1,656	5,236
593	59630	LAKE VISTA RD	53.3	41.3	41.6	53.8	0	1	4	12	38	120
594	59631	HIDDEN SPRINGS DR	46.6	38.8	32.3	47.4	0	0	1	3	9	27
595	60043	GILMAN SPRINGS RD	73.7	64.5	70.6	75.8	60	190	601	1,901	6,011	19,009
596	60044	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
597	60046	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
598	60047	JACK RABBIT TRL	61.7	56.3	63.8	66.3	7	21	67	213	674	2,133
599	60115	MORENO BEACH DR	69.1	57.3	59.3	69.8	15	48	151	477	1,510	4,775
600	60131	PERRIS BLVD	66.6	55.5	54.8	67.2	8	26	83	262	830	2,624
601	60132	CANYON SPRINGS PKY	63.7	53.0	52.5	64.3	4	13	43	135	426	1,346
602	60133	ALESSANDRO BLVD				#VALUE!						
603	60134	CORPORATE CENTRE PL	67.8	56.8	61.6	69.0	13	40	126	397	1,256	3,972
604	60136	CACTUS AVE	65.1	53.0	50.5	65.5	6	18	56	177	561	1,774
605	60142	EUCALYPTUS AVE				#VALUE!						
606	60143	EUCALYPTUS AVE				#VALUE!						
607	60146	QUINCY ST				#VALUE!						
608	60147	RECHE VISTA DR	69.4	59.7	59.8	70.2	17	52	166	524	1,656	5,236
609	60148	EUCALYPTUS AVE				#VALUE!						
610	60149	GILMAN SPRINGS RD	73.7	64.9	71.5	76.1	64	204	644	2,037	6,441	20,369
611	60150	STREET E				#VALUE!						
612	60151	ALESSANDRO BLVD	61.0	51.4	49.3	61.7	2	7	23	74	234	740
613	60152	ALESSANDRO BLVD	61.0	51.4	49.3	61.7	2	7	23	74	234	740
614	60155	GILMAN SPRINGS RD	73.7	64.6	70.7	75.8	60	190	601	1,901	6,011	19,009
615	60173	STREET F				#VALUE!						
616	60491	IRONWOOD AVE	66.4	54.9	57.3	67.2	8	26	83	262	830	2,624
617	61193	GRAEBER ST	57.6	52.4	63.1	64.5	4	14	45	141	446	1,409
618	61273	JOHN F KENNEDY DR	69.5	61.4	63.2	70.9	19	62	195	615	1,945	6,151
619	61547	PIGEON PASS RD	53.5	46.7	0.0	54.3	0	1	4	13	43	135
620	61550	PIGEON PASS RD	53.5	46.7	0.0	54.3	0	1	4	13	43	135

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1		I-215	99,637	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
2		I-215	121,574	65	50	94.50	2.67	2.83	78.00	4.00	18.00	
3		I-215	115,092	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
4		I-215	121,344	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
5		I-215	121,344	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
6		I-215	114,141	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
7		I-215	105,970	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
8		I-215	127,219	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
9		I-215	127,219	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
10		I-215	126,466	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
11		I-215	129,742	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
12		I-215	135,057	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
13		I-215	114,243	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
14		I-215	114,243	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
15		I-215	120,103	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
16		I-215	120,103	65	50	94.00	2.91	3.09	78.00	4.00	18.00	
17		I-215	110,242	65	50	93.50	3.15	3.35	78.00	4.00	18.00	
18		I-215	114,559	65	50	93.50	3.15	3.35	78.00	4.00	18.00	
19		I-215	112,858	65	50	93.50	3.15	3.35	78.00	4.00	18.00	
20		I-215	106,406	65	50	93.00	3.40	3.61	78.00	4.00	18.00	
21		I-215	105,976	65	50	93.00	3.40	3.61	78.00	4.00	18.00	
22		I-215	114,630	65	50	93.00	3.40	3.61	78.00	4.00	18.00	
23		I-215	106,396	65	50	93.00	3.40	3.61	78.00	4.00	18.00	
24		I-215	112,720	65	50	93.00	3.40	3.61	78.00	4.00	18.00	
25		I-215	107,555	65	50	92.50	3.64	3.86	78.00	4.00	18.00	
26		I-215	107,555	65	50	92.50	3.64	3.86	78.00	4.00	18.00	
27		I-215	209,187	65	50	92.00	3.88	4.12	78.00	4.00	18.00	
28		I-215	200,553	65	50	91.50	4.12	4.38	78.00	4.00	18.00	
29		I-215	211,469	65	50	91.50	4.12	4.38	78.00	4.00	18.00	
30		I-215	192,656	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
31		I-215	193,614	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
32		I-215	188,493	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
33		I-215	177,762	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
34		I-215	177,762	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
35		I-215	174,788	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
36		I-215	172,627	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
37		I-215	172,627	65	50	90.50	4.61	4.89	78.00	4.00	18.00	
38		I-215	159,846	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
39		I-215	148,559	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
40		I-215	154,227	65	50	89.50	5.09	5.41	78.00	4.00	18.00	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	54,476	65	50	82.50	8.49	9.01	78.00	4.00	18.00
2	SR-60	54,213	65	50	82.50	8.49	9.01	78.00	4.00	18.00
3	SR-60	51,876	65	50	82.50	8.49	9.01	78.00	4.00	18.00
4	SR-60	51,908	65	50	82.50	8.49	9.01	78.00	4.00	18.00
5	SR-60	51,575	65	50	82.50	8.49	9.01	78.00	4.00	18.00
6	SR-60	51,575	65	50	82.50	8.49	9.01	78.00	4.00	18.00
7	SR-60	63,716	65	50	83.50	8.00	8.50	78.00	4.00	18.00
8	SR-60	63,716	65	50	84.50	7.52	7.98	78.00	4.00	18.00
9	SR-60	62,478	65	50	84.50	7.52	7.98	78.00	4.00	18.00
10	SR-60	62,074	65	50	84.50	7.52	7.98	78.00	4.00	18.00
11	SR-60	62,432	65	50	84.50	7.52	7.98	78.00	4.00	18.00
12	SR-60	62,846	65	50	84.25	7.64	8.11	78.00	4.00	18.00
13	SR-60	61,507	65	50	84.00	7.76	8.24	78.00	4.00	18.00
14	SR-60	59,908	65	50	84.00	7.76	8.24	78.00	4.00	18.00
15	SR-60	82,813	65	50	84.25	7.64	8.11	78.00	4.00	18.00
16	SR-60	72,341	65	50	84.50	7.52	7.98	78.00	4.00	18.00
17	SR-60	82,154	65	50	84.83	7.36	7.81	78.00	4.00	18.00
18	SR-60	82,154	65	50	85.17	7.19	7.64	78.00	4.00	18.00
19	SR-60	82,154	65	50	85.50	7.03	7.47	78.00	4.00	18.00
20	SR-60	78,914	65	50	87.00	6.31	6.70	78.00	4.00	18.00
21	SR-60	82,622	65	50	86.00	6.79	7.21	78.00	4.00	18.00
22	SR-60	99,311	65	50	89.00	5.34	5.67	78.00	4.00	18.00
23	SR-60	93,299	65	50	88.50	5.58	5.92	78.00	4.00	18.00
24	SR-60	93,299	65	50	88.50	5.58	5.92	78.00	4.00	18.00
25	SR-60	93,335	65	50	88.50	5.58	5.92	78.00	4.00	18.00
26	SR-60	93,820	65	50	88.50	5.58	5.92	78.00	4.00	18.00
27	SR-60	107,566	65	50	88.50	5.58	5.92	78.00	4.00	18.00
28	SR-60	107,566	65	50	88.50	5.58	5.92	78.00	4.00	18.00
29	SR-60	108,790	65	50	88.50	5.58	5.92	78.00	4.00	18.00
30	SR-60	114,499	65	50	90.00	4.85	5.15	78.00	4.00	18.00
31	SR-60	114,499	65	50	90.00	4.85	5.15	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing  
**Assessment Metric:** Soft

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Soft				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	I-215	I-215	82.4	73.4	77.2	83.9	196	422	910	1,960	4,223	9,099
2	I-215	I-215	83.3	73.9	77.7	84.7	222	477	1,029	2,216	4,775	10,287
3	I-215	I-215	83.0	74.1	77.8	84.6	218	470	1,013	2,183	4,702	10,131
4	I-215	I-215	83.2	74.3	78.0	84.8	225	485	1,045	2,251	4,849	10,446
5	I-215	I-215	83.2	74.3	78.0	84.8	225	485	1,045	2,251	4,849	10,446
6	I-215	I-215	83.0	74.0	77.8	84.5	215	463	998	2,149	4,631	9,976
7	I-215	I-215	82.7	73.7	77.4	84.2	205	442	953	2,053	4,422	9,527
8	I-215	I-215	83.4	74.5	78.2	85.0	232	500	1,077	2,321	5,000	10,772
9	I-215	I-215	83.4	74.5	78.2	85.0	232	500	1,077	2,321	5,000	10,772
10	I-215	I-215	83.4	74.5	78.2	85.0	232	500	1,077	2,321	5,000	10,772
11	I-215	I-215	83.5	74.6	78.3	85.1	236	508	1,094	2,357	5,077	10,939
12	I-215	I-215	83.7	74.8	78.5	85.3	243	524	1,128	2,430	5,236	11,280
13	I-215	I-215	83.0	74.0	77.8	84.5	215	463	998	2,149	4,631	9,976
14	I-215	I-215	83.0	74.0	77.8	84.5	215	463	998	2,149	4,631	9,976
15	I-215	I-215	83.2	74.2	78.0	84.7	222	477	1,029	2,216	4,775	10,287
16	I-215	I-215	83.2	74.2	78.0	84.7	222	477	1,029	2,216	4,775	10,287
17	I-215	I-215	82.8	74.2	78.0	84.5	215	463	998	2,149	4,631	9,976
18	I-215	I-215	83.0	74.4	78.1	84.6	218	470	1,013	2,183	4,702	10,131
19	I-215	I-215	82.9	74.3	78.1	84.6	218	470	1,013	2,183	4,702	10,131
20	I-215	I-215	82.6	74.4	78.1	84.4	212	456	982	2,117	4,560	9,824
21	I-215	I-215	82.6	74.4	78.1	84.4	212	456	982	2,117	4,560	9,824
22	I-215	I-215	82.9	74.7	78.5	84.7	222	477	1,029	2,216	4,775	10,287
23	I-215	I-215	82.6	74.4	78.1	84.4	212	456	982	2,117	4,560	9,824
24	I-215	I-215	82.9	74.6	78.4	84.7	222	477	1,029	2,216	4,775	10,287
25	I-215	I-215	82.6	74.7	78.5	84.5	215	463	998	2,149	4,631	9,976
26	I-215	I-215	82.6	74.7	78.5	84.5	215	463	998	2,149	4,631	9,976
27	I-215	I-215	85.5	77.9	81.6	87.5	341	734	1,581	3,406	7,339	15,811
28	I-215	I-215	85.3	78.0	81.7	87.4	335	723	1,557	3,355	7,227	15,571
29	I-215	I-215	85.5	78.2	82.0	87.6	346	745	1,606	3,459	7,453	16,056
30	I-215	I-215	85.1	78.1	81.8	87.3	330	712	1,533	3,303	7,117	15,333
31	I-215	I-215	85.1	78.1	81.8	87.3	330	712	1,533	3,303	7,117	15,333
32	I-215	I-215	85.0	78.0	81.7	87.2	325	701	1,510	3,253	7,009	15,100
33	I-215	I-215	84.8	77.7	81.4	87.0	315	680	1,464	3,155	6,797	14,643
34	I-215	I-215	84.8	77.7	81.4	87.0	315	680	1,464	3,155	6,797	14,643
35	I-215	I-215	84.7	77.6	81.4	86.9	311	669	1,442	3,107	6,693	14,420
36	I-215	I-215	84.6	77.6	81.3	86.8	306	659	1,420	3,059	6,591	14,200
37	I-215	I-215	84.6	77.8	81.6	86.9	311	669	1,442	3,107	6,693	14,420
38	I-215	I-215	84.2	77.9	81.7	86.7	301	649	1,398	3,013	6,491	13,984
39	I-215	I-215	83.9	77.6	81.3	86.4	288	620	1,335	2,877	6,199	13,355
40	I-215	I-215	84.1	77.8	81.5	86.6	297	639	1,377	2,967	6,392	13,771

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Existing

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	79.2	75.5	79.2	83.0	171	368	792	1,707	3,678	7,924
2	SR-60	79.2	75.4	79.2	83.0	171	368	792	1,707	3,678	7,924
3	SR-60	79.0	75.3	79.0	82.8	166	357	768	1,656	3,567	7,685
4	SR-60	79.0	75.3	79.0	82.8	166	357	768	1,656	3,567	7,685
5	SR-60	79.0	75.2	79.0	82.8	166	357	768	1,656	3,567	7,685
6	SR-60	79.0	75.2	79.0	82.8	166	357	768	1,656	3,567	7,685
7	SR-60	79.9	75.9	79.6	83.6	187	403	869	1,872	4,033	8,689
8	SR-60	80.0	75.6	79.4	83.5	184	397	856	1,843	3,972	8,557
9	SR-60	79.9	75.5	79.3	83.4	182	391	843	1,815	3,911	8,426
10	SR-60	79.9	75.5	79.2	83.4	182	391	843	1,815	3,911	8,426
11	SR-60	79.9	75.5	79.3	83.4	182	391	843	1,815	3,911	8,426
12	SR-60	79.9	75.6	79.4	83.4	182	391	843	1,815	3,911	8,426
13	SR-60	79.8	75.6	79.3	83.4	182	391	843	1,815	3,911	8,426
14	SR-60	79.7	75.5	79.2	83.3	179	385	830	1,788	3,852	8,298
15	SR-60	81.1	76.8	80.6	84.6	218	470	1,013	2,183	4,702	10,131
16	SR-60	80.5	76.2	79.9	84.0	199	429	924	1,991	4,288	9,239
17	SR-60	81.1	76.6	80.4	84.5	215	463	998	2,149	4,631	9,976
18	SR-60	81.1	76.5	80.3	84.5	215	463	998	2,149	4,631	9,976
19	SR-60	81.1	76.4	80.2	84.4	212	456	982	2,117	4,560	9,824
20	SR-60	81.0	75.8	79.5	84.1	202	435	938	2,021	4,355	9,382
21	SR-60	81.2	76.3	80.0	84.4	212	456	982	2,117	4,560	9,824
22	SR-60	82.1	76.1	79.8	84.8	225	485	1,045	2,251	4,849	10,446
23	SR-60	81.8	76.0	79.7	84.6	218	470	1,013	2,183	4,702	10,131
24	SR-60	81.8	76.0	79.7	84.6	218	470	1,013	2,183	4,702	10,131
25	SR-60	81.8	76.0	79.7	84.6	218	470	1,013	2,183	4,702	10,131
26	SR-60	81.9	76.0	79.7	84.6	218	470	1,013	2,183	4,702	10,131
27	SR-60	82.5	76.6	80.3	85.2	239	516	1,111	2,393	5,156	11,108
28	SR-60	82.5	76.6	80.3	85.2	239	516	1,111	2,393	5,156	11,108
29	SR-60	82.5	76.6	80.4	85.2	239	516	1,111	2,393	5,156	11,108
30	SR-60	82.8	76.3	80.0	85.2	239	516	1,111	2,393	5,156	11,108
31	SR-60	82.8	76.3	80.0	85.2	239	516	1,111	2,393	5,156	11,108

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	3490	CACTUS AVE	59,100	50	50	93.93	2.96	3.11	78.00	4.00	18.00	
2	7726	DAY ST	17,053	40	50	96.06	1.71	2.23	78.00	4.00	18.00	
3	7889	ENCELIA AVE	5,456	35	50	86.18	6.53	7.29	78.00	4.00	18.00	
4	9102	PIGEON PASS RD	26,438	40	50	97.61	1.49	0.90	78.00	4.00	18.00	
5	11519	CACTUS AVE	59,100	50	50	95.29	2.36	2.35	78.00	4.00	18.00	
6	11520	CACTUS AVE	59,100	50	50	94.51	2.54	2.95	78.00	4.00	18.00	
7	11522	PIGEON PASS RD	26,631	40	50	97.60	1.49	0.91	78.00	4.00	18.00	
8	11523	FREDERICK ST	28,335	40	50	97.33	1.58	1.09	78.00	4.00	18.00	
9	11524	SUNNYMEAD BLVD	16,191	35	50	97.02	1.59	1.39	78.00	4.00	18.00	
10	11525	FREDERICK ST	34,311	40	50	96.92	1.68	1.40	78.00	4.00	18.00	
11	11526	HEMLOCK AVE	4,664	35	50	98.20	1.47	0.33	78.00	4.00	18.00	
12	11529	E ALESSANDRO BLVD	57,230	45	50	95.44	2.18	2.38	78.00	4.00	18.00	
13	11530	E ALESSANDRO BLVD	57,078	45	50	95.44	2.18	2.38	78.00	4.00	18.00	
14	11532	DAY ST	23,570	40	50	94.74	2.23	3.03	78.00	4.00	18.00	
15	11533	DAY ST	22,499	40	50	94.54	2.57	2.89	78.00	4.00	18.00	
16	11534	DAY ST	17,053	40	50	96.06	1.71	2.23	78.00	4.00	18.00	
17	11535	DAY ST	10,591	40	50	98.46	1.02	0.52	78.00	4.00	18.00	
18	11543	NASON ST	17,554	40	50	96.93	1.59	1.48	78.00	4.00	18.00	
19	11544	NASON ST	5,043	40	50	98.54	1.25	0.21	78.00	4.00	18.00	
20	11545	NASON ST	15,869	40	50	96.75	1.63	1.62	78.00	4.00	18.00	
21	11547	SUNNYMEAD BLVD	24,113	40	50	97.71	1.44	0.85	78.00	4.00	18.00	
22	11548	SUNNYMEAD BLVD	20,470	40	50	98.14	1.27	0.59	78.00	4.00	18.00	
23	11550	SUNNYMEAD BLVD	26,665	35	50	97.40	1.54	1.06	78.00	4.00	18.00	
24	11551	SUNNYMEAD BLVD	11,347	35	50	97.67	1.43	0.90	78.00	4.00	18.00	
25	11594	THEODORE AVE	19,500	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
26	11595	THEODORE AVE	1,625	50	50	95.82	2.36	1.82	78.00	4.00	18.00	
27	11598	THEODORE AVE	36,900	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
28	11618	MORENO BEACH DR	25,013	45	50	93.48	2.73	3.79	78.00	4.00	18.00	
29	11619	MORENO BEACH DR	12,145	45	50	96.26	2.12	1.62	78.00	4.00	18.00	
30	11620	MORENO BEACH DR	10,280	45	50	92.52	3.30	4.18	78.00	4.00	18.00	
31	11628	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00	
32	11629	REDLANDS BLVD	16,757	50	50	91.61	4.65	3.74	78.00	4.00	18.00	
33	11630	REDLANDS BLVD	11,300	50	50	90.00	3.30	6.70	78.00	4.00	18.00	
34	27569	ALESSANDRO BLVD	524	40	50	99.44	0.46	0.10	78.00	4.00	18.00	
35	27588	IRONWOOD AVE	481	55	50	99.04	0.49	0.47	78.00	4.00	18.00	
36	27732	MORENO BEACH DR	9,486	50	50	97.38	1.49	1.13	78.00	4.00	18.00	
37	27733	MORENO BEACH DR	15,400	50	50	97.80	1.41	0.79	78.00	4.00	18.00	
38	27734	CACTUS AVE	15,400	50	50	97.43	1.89	0.68	78.00	4.00	18.00	
39	27735	MORENO BEACH DR	26,195	50	50	94.31	3.01	2.68	78.00	4.00	18.00	
40	27736	JOHN F KENNEDY DR	19,249	45	50	93.79	3.25	2.96	78.00	4.00	18.00	
41	27783	MORENO BEACH DR	14,653	50	50	96.48	2.11	1.41	78.00	4.00	18.00	
42	27784	ALESSANDRO BLVD	4,681	40	50	95.66	2.62	1.72	78.00	4.00	18.00	
43	27785	ALESSANDRO BLVD	11,895	50	50	95.96	2.51	1.53	78.00	4.00	18.00	
44	27786	MORENO BEACH DR	6,597	45	50	97.77	1.34	0.89	78.00	4.00	18.00	
45	27787	COTTONWOOD AVE	12,253	45	50	96.43	2.23	1.34	78.00	4.00	18.00	
46	27788	COTTONWOOD AVE	2,878	40	50	98.21	1.19	0.60	78.00	4.00	18.00	
47	27805	IRONWOOD AVE	5,050	55	50	97.59	1.19	1.22	78.00	4.00	18.00	
48	27806	IRONWOOD AVE	4,078	55	50	94.77	2.20	3.03	78.00	4.00	18.00	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

49	27862	REDLANDS BLVD	16,279	50	50	91.64	4.67	3.69	78.00	4.00	18.00
50	27863	REDLANDS BLVD	15,510	50	50	91.52	4.72	3.76	78.00	4.00	18.00
51	27864	REDLANDS BLVD	14,700	50	50	90.00	3.30	6.70	78.00	4.00	18.00
52	27865	REDLANDS BLVD	14,700	50	50	90.00	3.30	6.70	78.00	4.00	18.00
53	28114	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
54	28136	GILMAN SPRINGS RD	46,200	55	50	95.92	1.93	2.15	78.00	4.00	18.00
55	28170	IRONWOOD AVE	6,280	45	50	95.98	1.86	2.16	78.00	4.00	18.00
56	28181	NASON ST	26,336	40	50	96.85	1.70	1.45	78.00	4.00	18.00
57	28182	EUCALYPTUS AVE	14,219	40	50	95.87	2.02	2.11	78.00	4.00	18.00
58	28183	NASON ST	23,434	40	50	96.81	1.69	1.50	78.00	4.00	18.00
59	28184	COTTONWOOD AVE	3,676	45	50	97.63	1.88	0.49	78.00	4.00	18.00
60	28191	ALESSANDRO BLVD	26,745	50	50	96.39	2.18	1.43	78.00	4.00	18.00
61	28198	LASSELLE ST	11,997	40	50	97.89	1.42	0.69	78.00	4.00	18.00
62	28199	LASSELLE ST	15,233	40	50	97.80	1.65	0.55	78.00	4.00	18.00
63	28200	COTTONWOOD AVE	6,196	45	50	98.41	1.32	0.27	78.00	4.00	18.00
64	28203	LASSELLE ST	18,645	45	50	98.31	1.31	0.38	78.00	4.00	18.00
65	28204	LASSELLE ST	24,823	45	50	98.45	1.26	0.29	78.00	4.00	18.00
66	28205	GENTIAN AVE	5,704	45	50	98.62	1.27	0.11	78.00	4.00	18.00
67	28206	EUCALYPTUS AVE	14,082	40	50	96.02	1.90	2.08	78.00	4.00	18.00
68	28207	EUCALYPTUS AVE	21,351	40	50	96.26	1.87	1.87	78.00	4.00	18.00
69	28208	LASSELLE ST	10,169	45	50	99.07	0.80	0.13	78.00	4.00	18.00
70	28209	ALESSANDRO BLVD	25,642	45	50	96.59	2.10	1.31	78.00	4.00	18.00
71	28210	LASSELLE ST	19,711	45	50	98.49	1.25	0.26	78.00	4.00	18.00
72	28211	JOHN F KENNEDY DR	14,980	45	50	97.95	1.59	0.46	78.00	4.00	18.00
73	28212	COTTONWOOD AVE	6,338	45	50	98.55	1.18	0.27	78.00	4.00	18.00
74	28213	IRONWOOD AVE	12,923	40	50	97.62	1.34	1.04	78.00	4.00	18.00
75	28254	LASSELLE ST	31,755	45	50	97.45	1.54	1.01	78.00	4.00	18.00
76	28255	IRIS AVE	19,430	50	50	94.54	2.86	2.60	78.00	4.00	18.00
77	28256	KRAMERIA AVE	2,834	40	50	99.05	0.83	0.12	78.00	4.00	18.00
78	28283	LAKE PERRIS DR	16,108	40	50	97.21	1.81	0.98	78.00	4.00	18.00
79	28305	PERRIS BLVD	18,867	50	50	97.33	1.68	0.99	78.00	4.00	18.00
80	28306	MANZANITA AVE	2,061	40	50	98.56	1.09	0.35	78.00	4.00	18.00
81	28307	PERRIS BLVD	18,863	50	50	97.26	1.72	1.02	78.00	4.00	18.00
82	28320	PERRIS BLVD	19,640	50	50	97.47	1.60	0.93	78.00	4.00	18.00
83	28334	MANZANITA AVE	1,929	40	50	98.47	1.16	0.37	78.00	4.00	18.00
84	28335	SUNNYMEAD RANCH PKY	9,087	40	50	98.89	0.88	0.23	78.00	4.00	18.00
85	28342	PERRIS BLVD	43,438	40	50	97.76	1.41	0.83	78.00	4.00	18.00
86	28343	PERRIS BLVD	35,518	40	50	97.61	1.44	0.95	78.00	4.00	18.00
87	28344	EUCALYPTUS AVE	14,352	40	50	96.11	1.87	2.02	78.00	4.00	18.00
88	28345	EUCALYPTUS AVE	13,603	40	50	95.98	1.89	2.13	78.00	4.00	18.00
89	28347	N PERRIS BLVD	46,490	45	50	96.80	1.94	1.26	78.00	4.00	18.00
90	28348	NANDINA AVE	342	45	50	96.00	2.62	1.38	78.00	4.00	18.00
91	28349	PERRIS BLVD	38,804	40	50	97.79	1.37	0.84	78.00	4.00	18.00
92	28350	COTTONWOOD AVE	8,083	45	50	98.33	1.27	0.40	78.00	4.00	18.00
93	28351	COTTONWOOD AVE	6,204	45	50	98.79	0.96	0.25	78.00	4.00	18.00
94	28354	PERRIS BLVD	36,034	40	50	97.57	1.45	0.98	78.00	4.00	18.00
95	28360	PERRIS BLVD	43,421	45	50	96.93	1.82	1.25	78.00	4.00	18.00
96	28361	KRAMERIA AVE	11,477	40	50	96.68	1.99	1.33	78.00	4.00	18.00
97	28362	PERRIS BLVD	47,389	40	50	97.62	1.47	0.91	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

98	28363	PERRIS BLVD	39,575	40	50	98.01	1.38	0.61	78.00	4.00	18.00
99	28364	PERRIS BLVD	35,172	45	50	97.87	1.41	0.72	78.00	4.00	18.00
100	28365	IRIS AVE	13,162	50	50	95.23	2.43	2.34	78.00	4.00	18.00
101	28366	IRIS AVE	3,508	50	50	95.70	2.58	1.72	78.00	4.00	18.00
102	28373	COTTONWOOD AVE	1,610	40	50	98.11	1.46	0.43	78.00	4.00	18.00
103	28383	PERRIS BLVD	43,379	40	50	97.94	1.32	0.74	78.00	4.00	18.00
104	28384	JOHN F KENNEDY DR	17,703	45	50	98.14	1.43	0.43	78.00	4.00	18.00
105	28385	JOHN F KENNEDY DR	13,525	45	50	97.90	1.42	0.68	78.00	4.00	18.00
106	28386	PERRIS BLVD	36,300	40	50	97.71	1.41	0.88	78.00	4.00	18.00
107	28387	CACTUS AVE	24,900	40	50	97.99	1.64	0.37	78.00	4.00	18.00
108	28388	CACTUS AVE	24,900	40	50	98.07	1.51	0.42	78.00	4.00	18.00
109	28389	ALESSANDRO BLVD	29,225	45	50	96.95	1.91	1.14	78.00	4.00	18.00
110	28390	ALESSANDRO BLVD	27,413	45	50	97.24	1.71	1.05	78.00	4.00	18.00
111	28393	IRONWOOD AVE	7,148	40	50	97.42	1.16	1.42	78.00	4.00	18.00
112	28396	KITCHING ST	2,173	45	50	99.08	0.86	0.06	78.00	4.00	18.00
113	28397	IRIS AVE	19,430	50	50	94.54	2.86	2.60	78.00	4.00	18.00
114	28399	KITCHING ST	6,238	40	50	98.71	1.22	0.07	78.00	4.00	18.00
115	28400	ALESSANDRO BLVD	27,413	45	50	97.24	1.71	1.05	78.00	4.00	18.00
116	28401	KITCHING ST	3,678	40	50	98.88	1.03	0.09	78.00	4.00	18.00
117	28402	KITCHING ST	1,465	40	50	98.33	1.45	0.22	78.00	4.00	18.00
118	28424	KITCHING ST	5,969	40	50	98.52	1.14	0.34	78.00	4.00	18.00
119	28425	KITCHING ST	5,714	40	50	98.74	1.07	0.19	78.00	4.00	18.00
120	28426	COTTONWOOD AVE	6,484	45	50	98.42	1.31	0.27	78.00	4.00	18.00
121	28446	HEACOCK ST	16,243	40	50	98.19	1.27	0.54	78.00	4.00	18.00
122	28447	HEACOCK ST	14,832	40	50	98.09	1.35	0.56	78.00	4.00	18.00
123	28448	COTTONWOOD AVE	8,407	45	50	98.73	0.97	0.30	78.00	4.00	18.00
124	28449	COTTONWOOD AVE	10,736	45	50	98.54	1.01	0.45	78.00	4.00	18.00
125	28450	HEACOCK ST	17,618	45	50	98.47	1.15	0.38	78.00	4.00	18.00
126	28451	IRONWOOD AVE	7,578	40	50	97.33	1.22	1.45	78.00	4.00	18.00
127	28452	IRONWOOD AVE	8,216	45	50	96.89	1.60	1.51	78.00	4.00	18.00
128	28453	HEACOCK ST	15,930	35	50	97.72	1.24	1.04	78.00	4.00	18.00
129	28454	HEACOCK ST	15,414	35	50	98.00	1.40	0.60	78.00	4.00	18.00
130	28455	EUCALYPTUS AVE	10,738	40	50	94.83	2.48	2.69	78.00	4.00	18.00
131	28458	HEACOCK ST	19,407	35	50	97.15	1.53	1.32	78.00	4.00	18.00
132	28459	SUNNYMEAD BLVD	12,655	35	50	98.18	1.14	0.68	78.00	4.00	18.00
133	28460	SUNNYMEAD BLVD	16,446	35	50	97.21	1.51	1.28	78.00	4.00	18.00
134	28461	HEACOCK ST	19,190	35	50	97.68	1.45	0.87	78.00	4.00	18.00
135	28462	HEACOCK ST	19,664	35	50	97.11	1.55	1.34	78.00	4.00	18.00
136	28463	HEACOCK ST	16,503	50	50	96.57	2.05	1.38	78.00	4.00	18.00
137	28464	HEACOCK ST	23,097	50	50	95.93	2.06	2.01	78.00	4.00	18.00
138	28465	ALESSANDRO BLVD	28,731	45	50	97.46	1.56	0.98	78.00	4.00	18.00
139	28466	ALESSANDRO BLVD	27,749	45	50	97.46	1.54	1.00	78.00	4.00	18.00
140	28467	IRONWOOD AVE	6,280	45	50	95.98	1.86	2.16	78.00	4.00	18.00
141	28468	MANZANITA AVE	1,670	40	50	99.35	0.62	0.03	78.00	4.00	18.00
142	28469	HEACOCK ST	6,305	45	50	97.86	1.66	0.48	78.00	4.00	18.00
143	28470	SUNNYMEAD RANCH PKY	9,491	40	50	98.67	1.06	0.27	78.00	4.00	18.00
144	28471	HEACOCK ST	19,228	50	50	95.97	2.25	1.78	78.00	4.00	18.00
145	28472	MEYER ST	12,189	45	50	98.13	1.23	0.64	78.00	4.00	18.00
146	28473	N WEBSTER AVE	18,487	50	50	96.19	2.25	1.56	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

147	28482	HEACOCK ST	27,707	45	50	96.17	2.03	1.80	78.00	4.00	18.00
148	28483	JOHN F KENNEDY DR	12,818	45	50	97.67	1.51	0.82	78.00	4.00	18.00
149	28489	CACTUS AVE	24,900	40	50	97.92	1.51	0.57	78.00	4.00	18.00
150	28490	CACTUS AVE	53,900	50	50	96.07	2.07	1.86	78.00	4.00	18.00
151	28491	INDIAN ST	7,812	35	50	98.74	1.05	0.21	78.00	4.00	18.00
152	28492	INDIAN ST	7,343	35	50	98.13	1.43	0.44	78.00	4.00	18.00
153	28493	INDIAN ST	5,979	40	50	98.72	0.92	0.36	78.00	4.00	18.00
154	28494	INDIAN ST	4,881	40	50	97.96	1.63	0.41	78.00	4.00	18.00
155	28495	INDIAN ST	3,997	35	50	98.81	0.99	0.20	78.00	4.00	18.00
156	28496	INDIAN ST	2,192	40	50	98.77	0.95	0.28	78.00	4.00	18.00
157	28497	INDIAN ST	6,030	40	50	98.77	1.04	0.19	78.00	4.00	18.00
158	28507	INDIAN AVE	6,394	40	50	98.87	0.97	0.16	78.00	4.00	18.00
159	28534	GRAHAM ST	2,497	40	50	98.83	0.87	0.30	78.00	4.00	18.00
160	28537	GRAHAM ST	5,176	40	50	98.74	1.02	0.24	78.00	4.00	18.00
161	28538	GRAHAM ST	6,758	40	50	98.54	1.11	0.35	78.00	4.00	18.00
162	28539	COTTONWOOD AVE	13,355	45	50	98.58	0.99	0.43	78.00	4.00	18.00
163	28540	EUCALYPTUS AVE	10,119	40	50	94.75	2.46	2.79	78.00	4.00	18.00
164	28541	GRAHAM ST	7,140	40	50	97.77	1.49	0.74	78.00	4.00	18.00
165	28542	ALESSANDRO BLVD	26,634	45	50	97.14	1.59	1.27	78.00	4.00	18.00
166	28551	IRONWOOD AVE	6,446	40	50	95.22	1.51	3.27	78.00	4.00	18.00
167	28553	MEYER ST	12,189	45	50	98.13	1.23	0.64	78.00	4.00	18.00
168	28558	RIVERSIDE DR	4,473	25	50	98.27	1.16	0.57	78.00	4.00	18.00
169	28559	CACTUS AVE	53,900	50	50	95.78	2.21	2.01	78.00	4.00	18.00
170	28674	ELSWORTH ST	8,024	35	50	98.23	1.27	0.50	78.00	4.00	18.00
171	28675	EUCALYPTUS AVE	18,990	40	50	96.14	2.11	1.75	78.00	4.00	18.00
172	28676	EUCALYPTUS AVE	11,693	40	50	94.80	2.49	2.71	78.00	4.00	18.00
173	28678	ELSWORTH ST	7,380	35	50	98.06	1.32	0.62	78.00	4.00	18.00
174	28679	COTTONWOOD AVE	4,222	40	50	98.47	1.05	0.48	78.00	4.00	18.00
175	28680	COTTONWOOD AVE	8,143	40	50	98.37	1.21	0.42	78.00	4.00	18.00
176	28685	ELSWORTH ST	5,005	40	50	97.97	1.42	0.61	78.00	4.00	18.00
177	28686	ALESSANDRO BLVD	24,464	45	50	96.30	1.88	1.82	78.00	4.00	18.00
178	28687	ALESSANDRO BLVD	28,037	45	50	95.23	2.07	2.70	78.00	4.00	18.00
179	28688	ELSWORTH ST	8,082	40	50	97.56	1.56	0.88	78.00	4.00	18.00
180	28689	CACTUS AVE	53,900	50	50	95.77	2.20	2.03	78.00	4.00	18.00
181	28692	MEMORIAL WAY	7,353	40	50	98.87	0.85	0.28	78.00	4.00	18.00
182	28693	EUCALYPTUS AVE	29,895	35	50	95.13	2.58	2.29	78.00	4.00	18.00
183	28703	TOWN CIR	3,338	30	50	98.81	1.05	0.14	78.00	4.00	18.00
184	28729	PIGEON PASS RD	20,519	45	50	98.63	1.08	0.29	78.00	4.00	18.00
185	28730	PIGEON PASS RD	18,356	40	50	98.59	1.12	0.29	78.00	4.00	18.00
186	28731	IRONWOOD AVE	10,739	45	50	96.35	1.50	2.15	78.00	4.00	18.00
187	28732	FREDERICK ST	30,027	40	50	96.76	1.72	1.52	78.00	4.00	18.00
188	28733	CENTERPOINT DR	16,626	30	50	98.93	0.87	0.20	78.00	4.00	18.00
189	28737	PIGEON PASS RD	13,084	45	50	98.56	1.11	0.33	78.00	4.00	18.00
190	28738	PIGEON PASS RD	1,896	45	50	97.42	1.46	1.12	78.00	4.00	18.00
191	28739	PIGEON PASS RD	16,515	45	50	98.59	1.11	0.30	78.00	4.00	18.00
192	28740	FREDERICK ST	11,398	40	50	98.38	0.85	0.77	78.00	4.00	18.00
193	28742	PIGEON PASS RD	3,055	45	50	97.40	1.62	0.98	78.00	4.00	18.00
194	28743	FREDERICK ST	17,947	40	50	98.29	1.04	0.67	78.00	4.00	18.00
195	28744	FREDERICK ST	11,983	40	50	98.19	1.06	0.75	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

196	28751	FREDERICK ST	3,893	40	50	98.59	1.02	0.39	78.00	4.00	18.00
197	28760	PIGEON PASS RD	1,452	45	50	97.96	1.57	0.47	78.00	4.00	18.00
198	28775	EUCALYPTUS AVE	37,441	35	50	93.59	3.34	3.07	78.00	4.00	18.00
199	28776	EUCALYPTUS AVE	41,817	35	50	94.01	3.13	2.86	78.00	4.00	18.00
200	28781	ALESSANDRO BLVD	51,468	45	50	95.27	2.18	2.55	78.00	4.00	18.00
201	28789	E ALESSANDRO BLVD	65,420	45	50	95.46	2.23	2.31	78.00	4.00	18.00
202	28808	CACTUS AVE	59,100	50	50	93.82	3.03	3.15	78.00	4.00	18.00
203	28815	DAY ST	21,942	35	50	96.34	1.90	1.76	78.00	4.00	18.00
204	28816	DAY ST	18,389	40	50	93.45	3.05	3.50	78.00	4.00	18.00
205	28817	DAY ST	25,623	25	50	96.34	1.99	1.67	78.00	4.00	18.00
206	28823	BOX SPRINGS RD	13,800	45	50	96.68	1.33	1.99	78.00	4.00	18.00
207	28829	BOX SPRINGS RD	16,779	45	50	96.54	1.62	1.84	78.00	4.00	18.00
208	32731	BOX SPRINGS RD	17,947	45	50	96.59	1.62	1.79	78.00	4.00	18.00
209	34467	E ALESSANDRO BLVD	55,705	45	50	95.55	2.17	2.28	78.00	4.00	18.00
210	34564	HEMLOCK AVE	9,015	35	50	95.41	2.33	2.26	78.00	4.00	18.00
211	36199	IRONWOOD AVE	6,152	40	50	95.03	1.55	3.42	78.00	4.00	18.00
212	36202	PERRIS BLVD	35,575	40	50	97.94	1.41	0.65	78.00	4.00	18.00
213	36241	GILMAN SPRINGS RD	40,400	55	50	94.65	2.02	3.33	78.00	4.00	18.00
214	36242	GILMAN SPRINGS RD	46,200	55	50	95.98	1.91	2.11	78.00	4.00	18.00
215	36243	GILMAN SPRINGS RD	46,200	55	50	95.70	2.05	2.25	78.00	4.00	18.00
216	36244	GILMAN SPRINGS RD	46,200	55	50	95.64	1.97	2.39	78.00	4.00	18.00
217	36245	JACK RABBIT TRL	11,036	45	50	96.09	1.98	1.93	78.00	4.00	18.00
218	36246	ALESSANDRO BLVD	5,237	50	50	98.30	1.22	0.48	78.00	4.00	18.00
219	36247	REDLANDS BLVD	24,420	50	50	93.49	3.78	2.73	78.00	4.00	18.00
220	36248	VIA DEL LAGO	8,467	45	50	96.35	2.27	1.38	78.00	4.00	18.00
221	36249	IRIS AVE	41,856	50	50	95.47	2.47	2.06	78.00	4.00	18.00
222	36930	IRIS AVE	22,635	50	50	94.31	3.01	2.68	78.00	4.00	18.00
223	37189	MORENO BEACH DR	7,938	50	50	96.89	2.15	0.96	78.00	4.00	18.00
224	37192	ELSWORTH ST	5,005	40	50	97.97	1.42	0.61	78.00	4.00	18.00
225	41042	HIDDEN SPRINGS DR	179	45	50	98.95	1.01	0.04	78.00	4.00	18.00
226	41043	DRACAEA AVE	487	35	50	99.10	0.80	0.10	78.00	4.00	18.00
227	41044	DRACAEA AVE	2,470	35	50	98.78	0.90	0.32	78.00	4.00	18.00
228	41045	DRACAEA AVE	3,195	35	50	98.78	0.95	0.27	78.00	4.00	18.00
229	41046	DRACAEA AVE	3,827	35	50	98.70	0.99	0.31	78.00	4.00	18.00
230	41047	DRACAEA AVE	2,261	35	50	98.87	0.92	0.21	78.00	4.00	18.00
231	41048	DRACAEA AVE	5,863	35	50	98.63	1.05	0.32	78.00	4.00	18.00
232	41049	KITCHING ST	9,014	40	50	98.52	1.12	0.36	78.00	4.00	18.00
233	41050	LASSELLE ST	11,780	40	50	97.80	1.45	0.75	78.00	4.00	18.00
234	41051	PERRIS BLVD	41,786	40	50	97.73	1.42	0.85	78.00	4.00	18.00
235	41052	INDIAN ST	4,572	35	50	98.74	1.02	0.24	78.00	4.00	18.00
236	41053	HEACOCK ST	15,312	40	50	98.14	1.29	0.57	78.00	4.00	18.00
237	41054	GRAHAM ST	3,685	40	50	98.85	1.00	0.15	78.00	4.00	18.00
238	41055	FREDERICK ST	18,669	40	50	98.30	1.04	0.66	78.00	4.00	18.00
239	41056	RECHE VISTA DR	16,670	50	50	96.52	2.17	1.31	78.00	4.00	18.00
240	41057	VIA DEL LAGO	3,727	45	50	100.00	0.00	0.00	78.00	4.00	18.00
241	41059	ALTA CALLE	8,475	45	50	96.36	2.26	1.38	78.00	4.00	18.00
242	41060	ALTA CALLE	5,973	45	50	96.19	2.13	1.68	78.00	4.00	18.00
243	41061	ALTA CALLE	6,615	45	50	95.98	2.27	1.75	78.00	4.00	18.00
244	41062	LAKE PERRIS DR	9,792	40	50	96.40	2.24	1.36	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

245	41064	LAKE PERRIS DR	5,321	40	50	96.06	2.20	1.74	78.00	4.00	18.00
246	41065	EVANS RD	30,422	45	50	97.44	1.54	1.02	78.00	4.00	18.00
247	41066	LASSELLE ST	30,422	45	50	97.44	1.54	1.02	78.00	4.00	18.00
248	41067	VIA DEL LAGO	4,739	45	50	100.00	0.00	0.00	78.00	4.00	18.00
249	41068	LAKE PERRIS DR	4,470	40	50	96.06	2.20	1.74	78.00	4.00	18.00
250	41069	TOWNGATE AVE	17,834	40	50	95.53	2.40	2.07	78.00	4.00	18.00
251	41070	TOWNGATE AVE	17,834	40	50	95.53	2.40	2.07	78.00	4.00	18.00
252	41071	OLD 215 FRONTAGE RD	10,141	50	50	95.08	2.88	2.04	78.00	4.00	18.00
253	41072	OLD 215 FRONTAGE RD	6,734	50	50	95.91	2.25	1.84	78.00	4.00	18.00
254	41073	COTTONWOOD AVE	3,857	35	50	94.50	3.37	2.13	78.00	4.00	18.00
255	44344	SUNNYMEAD RANCH PKY	4,598	40	50	98.48	1.26	0.26	78.00	4.00	18.00
256	44345	OLD LAKE DR	9,470	40	50	98.70	1.08	0.22	78.00	4.00	18.00
257	44346	SUNNYMEAD RANCH PKY	1,795	40	50	98.27	1.23	0.50	78.00	4.00	18.00
258	44347	LAKE VISTA RD	2,591	25	50	98.51	1.38	0.11	78.00	4.00	18.00
259	44348	HEACOCK ST	4,169	45	50	97.36	1.96	0.68	78.00	4.00	18.00
260	44355	COTTONWOOD AVE	2,576	45	50	98.86	0.87	0.27	78.00	4.00	18.00
261	44356	MORRISON ST	4,820	35	50	98.68	1.25	0.07	78.00	4.00	18.00
262	44357	CANYON SPRINGS PKY	1,791	40	50	97.69	1.63	0.68	78.00	4.00	18.00
263	44358	MEMORIAL WAY	5,067	40	50	99.02	0.83	0.15	78.00	4.00	18.00
264	44359	GATEWAY DR	4,110	35	50	99.13	0.56	0.31	78.00	4.00	18.00
265	44360	LASSELLE ST	30,422	45	50	97.44	1.54	1.02	78.00	4.00	18.00
266	44361	KRAMERIA AVE	2,926	40	50	99.07	0.81	0.12	78.00	4.00	18.00
267	44362	KRAMERIA AVE	2,834	40	50	99.05	0.83	0.12	78.00	4.00	18.00
268	44464	ALESSANDRO BLVD	39,650	45	50	95.44	2.02	2.54	78.00	4.00	18.00
269	44465	N PERRIS BLVD	46,085	45	50	96.80	1.94	1.26	78.00	4.00	18.00
270	44807	GILMAN SPRINGS RD	46,200	55	50	95.90	1.95	2.15	78.00	4.00	18.00
271	44812	TOWN CIR	2,303	30	50	100.00	0.00	0.00	78.00	4.00	18.00
272	44813	TOWN CIR	926	30	50	100.00	0.00	0.00	78.00	4.00	18.00
273	44814	TOWN CIR	2,303	30	50	100.00	0.00	0.00	78.00	4.00	18.00
274	44816	TOWN CIR	1,730	30	50	99.37	0.48	0.15	78.00	4.00	18.00
275	44823	LASSELLE ST	32,554	45	50	97.58	1.47	0.95	78.00	4.00	18.00
276	44826	CACTUS AVE	13,000	45	50	97.27	2.16	0.57	78.00	4.00	18.00
277	44827	CACTUS AVE	13,000	45	50	98.34	1.21	0.45	78.00	4.00	18.00
278	44828	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
279	44829	EUCALYPTUS AVE	9,326	40	50	93.06	2.86	4.08	78.00	4.00	18.00
280	44830	KRAMERIA AVE	3,303	40	50	92.84	2.71	4.45	78.00	4.00	18.00
281	44831	ALESSANDRO BLVD	22,746	50	50	96.64	2.10	1.26	78.00	4.00	18.00
282	44832	LASSELLE ST	30,422	45	50	97.44	1.54	1.02	78.00	4.00	18.00
283	44833	QUINCY ST	888	45	50	97.16	2.49	0.35	78.00	4.00	18.00
284	44834	COTTONWOOD AVE	5,885	45	50	95.30	2.79	1.91	78.00	4.00	18.00
285	46116	N PERRIS BLVD	46,085	45	50	96.80	1.94	1.26	78.00	4.00	18.00
286	46264	SAN MICHELLE AV	553	40	50	96.03	2.58	1.39	78.00	4.00	18.00
287	46868	HEACOCK ST	20,939	50	50	96.21	2.02	1.77	78.00	4.00	18.00
288	48026	GRAEBER ST	22,155	25	50	95.53	2.21	2.26	78.00	4.00	18.00
289	48027	IRIS AVE	4,034	50	50	96.12	2.27	1.61	78.00	4.00	18.00
290	48028	GRAEBER ST	22,155	25	50	95.53	2.21	2.26	78.00	4.00	18.00
291	48029	SAN MICHELLE AV	190	40	50	90.79	7.67	1.54	78.00	4.00	18.00
292	48030	GRAEBER ST	728	25	50	98.85	0.74	0.41	78.00	4.00	18.00
293	48031	RIVERSIDE DR	16,218	25	50	98.20	1.20	0.60	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

294	48294	LASSELLE ST	1,361	40	50	98.86	1.08	0.06	78.00	4.00	18.00
295	48295	RECHE CANYON RD	16,728	40	50	96.53	2.16	1.31	78.00	4.00	18.00
296	48346	EUCALYPTUS AVE	31,813	35	50	93.74	3.16	3.10	78.00	4.00	18.00
297	48348	INDIAN ST	8,828	45	50	96.26	2.19	1.55	78.00	4.00	18.00
298	48349	INDIAN ST	8,828	45	50	96.26	2.19	1.55	78.00	4.00	18.00
299	48350	NANDINA AVE	1	45	50	98.49	1.16	0.35	78.00	4.00	18.00
300	48351	INDIAN ST	8,233	45	50	96.36	2.08	1.56	78.00	4.00	18.00
301	48352	INDIAN ST	8,337	45	50	96.35	2.09	1.56	78.00	4.00	18.00
302	48353	LOCUST AVE	7,908	40	50	96.88	2.16	0.96	78.00	4.00	18.00
303	48358	E OLEANDER AVE	7,895	25	50	97.93	1.66	0.41	78.00	4.00	18.00
304	48366	N PERRIS BLVD	45,829	45	50	96.79	1.94	1.27	78.00	4.00	18.00
305	51959	HEACOCK ST	14,871	50	50	97.73	1.51	0.76	78.00	4.00	18.00
306	51963	HEACOCK ST	14,871	50	50	97.73	1.51	0.76	78.00	4.00	18.00
307	51964	NASON ST	22,416	45	50	97.13	1.55	1.32	78.00	4.00	18.00
308	51965	NASON ST	17,071	45	50	96.55	2.00	1.45	78.00	4.00	18.00
309	52667	REDLANDS BLVD	16,757	50	50	91.61	4.65	3.74	78.00	4.00	18.00
310	52670	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
311	52672	MORENO BEACH DR	16,371	45	50	96.07	2.11	1.82	78.00	4.00	18.00
312	52673	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
313	52675	REDLANDS BLVD	22,470	50	50	85.05	5.61	9.34	78.00	4.00	18.00
314	52679	GILMAN SPRINGS RD	40,400	55	50	94.65	2.02	3.33	78.00	4.00	18.00
315	52682	GILMAN SPRINGS RD	40,400	55	50	95.50	1.88	2.62	78.00	4.00	18.00
316	52714	NASON ST	23,113	45	50	97.33	1.59	1.08	78.00	4.00	18.00
317	52715	NASON ST	11,314	40	50	97.49	1.44	1.07	78.00	4.00	18.00
318	53302	N PERRIS BLVD	34,438	45	50	96.76	1.99	1.25	78.00	4.00	18.00
319	53307	INDIAN ST	10,792	45	50	97.59	1.66	0.75	78.00	4.00	18.00
320	53313	OLD I-215 FRONTAGE RD	16,597	50	50	95.07	2.80	2.13	78.00	4.00	18.00
321	53490	HEACOCK ST	15,283	35	50	97.92	1.33	0.75	78.00	4.00	18.00
322	53491	PERRIS BLVD	36,034	40	50	97.57	1.45	0.98	78.00	4.00	18.00
323	53492	REDLANDS BLVD	15,510	50	50	91.52	4.72	3.76	78.00	4.00	18.00
324	54317	HEMLOCK AVE	1,563	35	50	97.98	1.64	0.38	78.00	4.00	18.00
325	54318	GRAHAM ST	5,885	40	50	98.81	1.05	0.14	78.00	4.00	18.00
326	54744	DAY ST	23,199	40	50	94.70	2.25	3.05	78.00	4.00	18.00
327	56560	PIGEON PASS RD	792	45	50	97.76	1.77	0.47	78.00	4.00	18.00
328	56965	N WEBSTER AVE	19,228	50	50	95.97	2.25	1.78	78.00	4.00	18.00
329	56967	INDIAN ST	10,792	45	50	97.59	1.66	0.75	78.00	4.00	18.00
330	56969	N PERRIS BLVD	34,438	45	50	96.76	1.99	1.25	78.00	4.00	18.00
331	56974	GATEWAY DR	4,110	35	50	99.13	0.56	0.31	78.00	4.00	18.00
332	56976	RECHE CANYON RD	80	40	50	99.87	0.00	0.13	78.00	4.00	18.00
333	56977	INDIAN ST	4,939	45	50	97.77	1.68	0.55	78.00	4.00	18.00
334	56978	KRAMERIA AVE	126	40	50	97.54	1.82	0.64	78.00	4.00	18.00
335	56979	HEACOCK ST	16,647	50	50	96.93	1.91	1.16	78.00	4.00	18.00
336	56980	KRAMERIA AVE	46	40	50	97.82	1.97	0.21	78.00	4.00	18.00
337	56981	EVANS RD	23,671	45	50	97.14	1.65	1.21	78.00	4.00	18.00
338	57031	DAY ST	9,517	40	50	95.88	2.36	1.76	78.00	4.00	18.00
339	57032	OLD I-215 FRONTAGE RD	26,114	50	50	95.38	2.63	1.99	78.00	4.00	18.00
340	57033	HEACOCK ST	13,233	45	50	97.46	1.69	0.85	78.00	4.00	18.00
341	57034	INDIAN ST	4,720	40	50	98.24	1.06	0.70	78.00	4.00	18.00
342	57035	GENTIAN AVE	4,970	45	50	96.63	1.69	1.68	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

343	57036	PERRIS BLVD	32,832	45	50	97.74	1.44	0.82	78.00	4.00	18.00
344	57037	GENTIAN AVE	7,222	45	50	96.91	1.55	1.54	78.00	4.00	18.00
345	57038	GENTIAN AVE	6,729	45	50	98.62	1.24	0.14	78.00	4.00	18.00
346	57041	NASON ST	16,272	45	50	96.68	1.85	1.47	78.00	4.00	18.00
347	57042	IRIS AVE	20,647	50	50	93.99	3.15	2.86	78.00	4.00	18.00
348	57043	OLIVER ST	660	35	50	98.75	1.18	0.07	78.00	4.00	18.00
349	57044	SAN MICHELLE AV	190	40	50	90.79	7.67	1.54	78.00	4.00	18.00
350	57045	OLIVER ST	3,149	35	50	97.92	1.48	0.60	78.00	4.00	18.00
351	57046	CACTUS AVE	11,700	50	50	97.77	1.44	0.79	78.00	4.00	18.00
352	57047	ALESSANDRO BLVD	10,694	50	50	95.54	2.75	1.71	78.00	4.00	18.00
353	57048	OLIVER ST	452	40	50	98.95	0.97	0.08	78.00	4.00	18.00
354	57049	CACTUS AVE	11,700	50	50	97.20	2.08	0.72	78.00	4.00	18.00
355	57050	JOHN F KENNEDY DR	157	45	50	99.64	0.35	0.01	78.00	4.00	18.00
356	57051	ALESSANDRO BLVD	2,839	40	50	93.19	3.97	2.84	78.00	4.00	18.00
357	57052	CACTUS AVE	15,400	50	50	96.26	2.46	1.28	78.00	4.00	18.00
358	57053	QUINCY ST	871	45	50	98.75	1.22	0.03	78.00	4.00	18.00
359	57054	COTTONWOOD AVE	3,084	45	50	93.77	3.88	2.35	78.00	4.00	18.00
360	57055	QUINCY ST	2,713	45	50	99.11	0.80	0.09	78.00	4.00	18.00
361	57056	QUINCY ST	2,982	45	50	96.68	1.84	1.48	78.00	4.00	18.00
362	57057	REDLANDS BLVD	11,300	50	50	90.00	3.30	6.70	78.00	4.00	18.00
363	57059	EUCALYPTUS AVE	14,115	40	50	94.32	2.66	3.02	78.00	4.00	18.00
364	57060	PERRIS BLVD	42,929	40	50	97.68	1.46	0.86	78.00	4.00	18.00
365	57062	MORRISON ST	0	35	50		0.00	0.00	78.00	4.00	18.00
366	57063	ALESSANDRO BLVD	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
367	57064	ALESSANDRO BLVD	14,000	50	50	80.00	17.80	2.20	78.00	4.00	18.00
368	57065	REDLANDS BLVD	14,700	50	50	90.00	3.30	6.70	78.00	4.00	18.00
369	57066	CACTUS AVE	14,000	50	50	95.01	2.91	2.08	78.00	4.00	18.00
370	57067	THEODORE AVE	36,900	50	50	80.00	8.00	12.00	78.00	4.00	18.00
371	57068	EUCALYPTUS AVE	31,400	40	50	80.10	9.50	10.40	78.00	4.00	18.00
372	57069	REDLANDS BLVD	11,300	50	50	90.00	3.30	6.70	78.00	4.00	18.00
373	57071	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
374	57072	GILMAN SPRINGS RD	40,400	55	50	95.60	2.07	2.33	78.00	4.00	18.00
375	57073	THEODORE AVE	36,900	50	50	80.00	8.00	12.00	78.00	4.00	18.00
376	57074	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
377	57075	THEODORE AVE	36,900	50	50	80.00	8.00	12.00	78.00	4.00	18.00
378	57076	GRAHAM ST	479	40	50	99.04	0.93	0.03	78.00	4.00	18.00
379	57077	IRONWOOD AVE	10,550	40	50	97.18	1.53	1.29	78.00	4.00	18.00
380	57078	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
381	57079	EUCALYPTUS AVE	12,000	40	50	80.00	9.60	10.40	78.00	4.00	18.00
382	57080	THEODORE AVE	3,500	50	50	80.00	8.00	12.00	78.00	4.00	18.00
383	57081	EUCALYPTUS AVE	12,000	40	50	80.00	9.60	10.40	78.00	4.00	18.00
384	57082	EUCALYPTUS AVE	31,400	40	50	80.10	9.50	10.40	78.00	4.00	18.00
385	57083	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
386	57084	THEODORE AVE	36,900	50	50	80.00	8.00	12.00	78.00	4.00	18.00
387	57085	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
388	57086	REDLANDS BLVD	11,300	50	50	90.00	3.30	6.70	78.00	4.00	18.00
389	57087	ENCELIA AVE	4,862	35	50	83.85	7.58	8.57	78.00	4.00	18.00
390	57088	IRONWOOD AVE	1,684	55	50	94.45	3.08	2.47	78.00	4.00	18.00
391	57089	QUINCY ST	1,735	45	50	96.43	2.21	1.36	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

392	57091	GILMAN SPRINGS RD	46,200	55	50	95.90	1.95	2.15	78.00	4.00	18.00
393	57093	IRONWOOD AVE	10,511	45	50	97.18	1.53	1.29	78.00	4.00	18.00
394	57095	ELDER AVE	4,185	35	50	98.60	1.11	0.29	78.00	4.00	18.00
395	57096	ELDER AVE	3,320	40	50	98.61	1.22	0.17	78.00	4.00	18.00
396	57097	LOCUST AVE	8,317	40	50	96.92	2.14	0.94	78.00	4.00	18.00
397	57098	QUINCY ST	364	45	50	97.81	1.69	0.50	78.00	4.00	18.00
398	57100	IRONWOOD AVE	481	55	50	99.04	0.49	0.47	78.00	4.00	18.00
399	57101	ELDER AVE	4,185	35	50	98.60	1.11	0.29	78.00	4.00	18.00
400	57127	RECHE VISTA DR	16,553	50	50	96.51	2.17	1.32	78.00	4.00	18.00
401	57222	GILMAN SPRINGS RD	40,400	55	50	95.60	2.07	2.33	78.00	4.00	18.00
402	57223	EUCALYPTUS AVE	31,400	40	50	80.10	9.50	10.40	78.00	4.00	18.00
403	57282	PIGEON PASS RD	792	45	50	97.76	1.77	0.47	78.00	4.00	18.00
404	57495	KITCHING ST	11,848	40	50	96.59	1.99	1.42	78.00	4.00	18.00
405	57513	IRONWOOD AVE	10,739	45	50	96.35	1.50	2.15	78.00	4.00	18.00
406	57514	HEACOCK ST	26,486	50	50	96.29	1.94	1.77	78.00	4.00	18.00
407	58231	GILMAN SPRINGS RD	40,400	55	50	95.34	2.11	2.55	78.00	4.00	18.00
408	58345	GILMAN SPRINGS RD	46,200	55	50	95.99	1.91	2.10	78.00	4.00	18.00
409	58347	CACTUS AVE	14,000	50	50	95.08	2.87	2.05	78.00	4.00	18.00
410	58348	JOHN F KENNEDY DR	14,041	45	50	91.42	4.35	4.23	78.00	4.00	18.00
411	58350	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
412	58351	PIGEON PASS RD	1,523	45	50	98.01	1.53	0.46	78.00	4.00	18.00
413	58352	GATEWAY DR	4,110	35	50	99.13	0.56	0.31	78.00	4.00	18.00
414	58353	TOWN CIR	20,934	30	50	96.31	2.50	1.19	78.00	4.00	18.00
415	58354	VIA DEL LAGO	9,007	45	50	96.33	2.23	1.44	78.00	4.00	18.00
416	58395	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
417	58396	REDLANDS BLVD	23,734	50	50	93.39	3.83	2.78	78.00	4.00	18.00
418	58403	RECHE VISTA DR	16,553	50	50	96.51	2.17	1.32	78.00	4.00	18.00
419	58404	HIGHLAND BLVD	769	40	50	94.04	3.62	2.34	78.00	4.00	18.00
420	58405	IRONWOOD AVE	9	55	50	98.18	1.39	0.43	78.00	4.00	18.00
421	58406	THEODORE AVE	778	50	50	94.08	3.60	2.32	78.00	4.00	18.00
422	58407	QUINCY ST	829	45	50	96.02	3.44	0.54	78.00	4.00	18.00
423	58408	IRONWOOD AVE	217	55	50	84.09	2.29	13.62	78.00	4.00	18.00
424	58409	IRONWOOD AVE	1,684	55	50	94.45	3.08	2.47	78.00	4.00	18.00
425	58411	CACTUS AVE	11,700	50	50	97.38	1.86	0.76	78.00	4.00	18.00
426	58412	GRAEBER ST	22,155	25	50	95.53	2.21	2.26	78.00	4.00	18.00
427	58413	CACTUS AVE	11,700	50	50	96.88	2.26	0.86	78.00	4.00	18.00
428	58414	OLIVER ST	817	35	50	99.04	0.91	0.05	78.00	4.00	18.00
429	58415	CACTUS AVE	15,400	50	50	96.12	2.90	0.98	78.00	4.00	18.00
430	58416	CACTUS AVE	15,400	50	50	96.47	2.36	1.17	78.00	4.00	18.00
431	58417	IRIS AVE	40,934	50	50	95.59	2.38	2.03	78.00	4.00	18.00
432	58419	ALTA CALLE	8,475	45	50	96.36	2.26	1.38	78.00	4.00	18.00
433	58420	IRIS AVE	20,805	50	50	94.01	3.14	2.85	78.00	4.00	18.00
434	58421	NASON ST	16,272	45	50	96.68	1.85	1.47	78.00	4.00	18.00
435	58422	LAKE PERRIS DR	7,028	40	50	96.06	2.20	1.74	78.00	4.00	18.00
436	58423	ALTA CALLE	5,973	45	50	96.19	2.13	1.68	78.00	4.00	18.00
437	58451	EUCALYPTUS AVE	9,326	40	50	93.06	2.86	4.08	78.00	4.00	18.00
438	58452	QUINCY ST	2,771	45	50	93.90	3.64	2.46	78.00	4.00	18.00
439	58453	EUCALYPTUS AVE	14,115	40	50	94.32	2.66	3.02	78.00	4.00	18.00
440	58454	MORENO BEACH DR	12,054	45	50	92.59	3.66	3.75	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

441	58455	NASON ST	17,554	40	50	96.93	1.59	1.48	78.00	4.00	18.00
442	58456	COTTONWOOD AVE	1,610	40	50	98.11	1.46	0.43	78.00	4.00	18.00
443	58457	IRONWOOD AVE	4,870	55	50	95.05	2.25	2.70	78.00	4.00	18.00
444	58458	NASON ST	3,052	40	50	98.70	1.15	0.15	78.00	4.00	18.00
445	58459	MORENO BEACH DR	16,371	45	50	96.07	2.11	1.82	78.00	4.00	18.00
446	58460	NASON ST	23,434	40	50	96.81	1.69	1.50	78.00	4.00	18.00
447	58461	ALESSANDRO BLVD	10,694	50	50	95.54	2.75	1.71	78.00	4.00	18.00
448	58976	IRONWOOD AVE	10,550	40	50	97.18	1.53	1.29	78.00	4.00	18.00
449	58977	IRONWOOD AVE	6,816	45	50	96.31	1.75	1.94	78.00	4.00	18.00
450	58978	ALESSANDRO BLVD	14,000	50	50	80.00	17.80	2.20	78.00	4.00	18.00
451	58979	PERRIS BLVD	18,863	50	50	97.26	1.72	1.02	78.00	4.00	18.00
452	58980	PERRIS BLVD	17,309	50	50	97.22	1.71	1.07	78.00	4.00	18.00
453	58990	PERRIS BLVD	18,867	50	50	97.33	1.68	0.99	78.00	4.00	18.00
454	58991	INDIAN AVE	1,479	40	50	98.46	1.16	0.38	78.00	4.00	18.00
455	58992	HEACOCK ST	4,169	45	50	97.36	1.96	0.68	78.00	4.00	18.00
456	58994	SUNNYMEAD RANCH PKY	7,794	40	50	99.03	0.81	0.16	78.00	4.00	18.00
457	58995	PERRIS BLVD	12,385	50	50	96.20	2.25	1.55	78.00	4.00	18.00
458	58996	ELDER AVE	3,320	35	50	98.61	1.22	0.17	78.00	4.00	18.00
459	58997	MORENO BEACH DR	7,938	50	50	96.89	2.15	0.96	78.00	4.00	18.00
460	58998	MANZANITA AVE	1,670	40	50	99.35	0.62	0.03	78.00	4.00	18.00
461	59014	PIGEON PASS RD	3,202	45	50	97.46	1.61	0.93	78.00	4.00	18.00
462	59015	HEACOCK ST	14,744	45	50	98.37	1.22	0.41	78.00	4.00	18.00
463	59016	IRONWOOD AVE	7,330	40	50	97.41	1.18	1.41	78.00	4.00	18.00
464	59017	HEACOCK ST	14,910	45	50	98.40	1.20	0.40	78.00	4.00	18.00
465	59018	PIGEON PASS RD	16,515	45	50	98.59	1.11	0.30	78.00	4.00	18.00
466	59019	ELDER AVE	4,226	35	50	98.60	1.11	0.29	78.00	4.00	18.00
467	59022	GRAEBER ST	17,407	25	50	98.37	1.09	0.54	78.00	4.00	18.00
468	59058	PIGEON PASS RD	1,523	45	50	98.01	1.53	0.46	78.00	4.00	18.00
469	59059	HIDDEN SPRINGS DR	179	45	50	98.95	1.01	0.04	78.00	4.00	18.00
470	59060	BOX SPRINGS RD	13,800	45	50	96.68	1.33	1.99	78.00	4.00	18.00
471	59062	SUNNYMEAD RANCH PKY	4,598	40	50	98.48	1.26	0.26	78.00	4.00	18.00
472	59064	OLD LAKE DR	9,470	40	50	98.70	1.08	0.22	78.00	4.00	18.00
473	59066	SUNNYMEAD RANCH PKY	14,331	40	50	98.74	1.03	0.23	78.00	4.00	18.00
474	59069	IRONWOOD AVE	11,814	40	50	96.96	1.29	1.75	78.00	4.00	18.00
475	59073	COTTONWOOD AVE	3,857	35	50	94.50	3.37	2.13	78.00	4.00	18.00
476	59101	PIGEON PASS RD	20,519	45	50	98.63	1.08	0.29	78.00	4.00	18.00
477	59102	BOX SPRINGS RD	16,779	45	50	96.54	1.62	1.84	78.00	4.00	18.00
478	59432	LASSELLE ST	30,283	45	50	97.40	1.56	1.04	78.00	4.00	18.00
479	59433	KITCHING ST	8,101	40	50	98.07	1.32	0.61	78.00	4.00	18.00
480	59437	LASSELLE ST	22,029	45	50	98.38	1.29	0.33	78.00	4.00	18.00
481	59438	KITCHING ST	10,283	40	50	98.72	1.07	0.21	78.00	4.00	18.00
482	59439	GENTIAN AVE	6,177	45	50	98.81	1.11	0.08	78.00	4.00	18.00
483	59440	N PERRIS BLVD	46,524	45	50	96.67	2.01	1.32	78.00	4.00	18.00
484	59442	N WEBSTER AVE	19,228	50	50	95.97	2.25	1.78	78.00	4.00	18.00
485	59444	N WEBSTER AVE	19,228	50	50	95.97	2.25	1.78	78.00	4.00	18.00
486	59446	NANDINA AVE	664	45	50	97.07	1.81	1.12	78.00	4.00	18.00
487	59447	NANDINA AVE	105	45	50	91.57	5.87	2.56	78.00	4.00	18.00
488	59448	INDIAN ST	9,784	45	50	96.07	2.10	1.83	78.00	4.00	18.00
489	59449	KRAMERIA AVE	4,736	40	50	96.17	2.62	1.21	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

490	59450	KRAMERIA AVE	3,303	40	50	92.84	2.71	4.45	78.00	4.00	18.00
491	59451	INDIAN ST	4,997	45	50	97.76	1.69	0.55	78.00	4.00	18.00
492	59452	GENTIAN AVE	7,987	45	50	97.79	1.53	0.68	78.00	4.00	18.00
493	59453	INDIAN ST	2,493	40	50	98.53	1.03	0.44	78.00	4.00	18.00
494	59454	PERRIS BLVD	34,113	45	50	97.89	1.39	0.72	78.00	4.00	18.00
495	59455	HEACOCK ST	16,647	40	50	96.93	1.91	1.16	78.00	4.00	18.00
496	59458	HEACOCK ST	15,055	50	50	97.62	1.61	0.77	78.00	4.00	18.00
497	59467	INDIAN ST	9,088	40	50	98.93	0.88	0.19	78.00	4.00	18.00
498	59468	HEACOCK ST	26,184	45	50	96.05	2.06	1.89	78.00	4.00	18.00
499	59469	CACTUS AVE	24,900	40	50	98.11	1.40	0.49	78.00	4.00	18.00
500	59470	INDIAN ST	5,625	40	50	98.41	1.01	0.58	78.00	4.00	18.00
501	59471	GENTIAN AVE	3,974	45	50	95.70	1.83	2.47	78.00	4.00	18.00
502	59473	GRAHAM ST	5,885	40	50	98.81	1.05	0.14	78.00	4.00	18.00
503	59474	HEACOCK ST	15,930	35	50	97.72	1.24	1.04	78.00	4.00	18.00
504	59475	INDIAN ST	7,343	35	50	98.13	1.43	0.44	78.00	4.00	18.00
505	59476	HEACOCK ST	11,522	45	50	97.78	1.51	0.71	78.00	4.00	18.00
506	59477	GRAHAM ST	10,717	40	50	96.14	2.18	1.68	78.00	4.00	18.00
507	59478	CACTUS AVE	53,900	50	50	96.17	2.07	1.76	78.00	4.00	18.00
508	59479	COTTONWOOD AVE	10,862	45	50	98.75	0.94	0.31	78.00	4.00	18.00
509	59480	GRAHAM ST	3,092	40	50	98.49	1.20	0.31	78.00	4.00	18.00
510	59481	HEACOCK ST	9,209	40	50	97.71	1.56	0.73	78.00	4.00	18.00
511	59482	HEMLOCK AVE	1,563	35	50	97.98	1.64	0.38	78.00	4.00	18.00
512	59483	SUNNYMEAD BLVD	16,454	35	50	97.33	1.47	1.20	78.00	4.00	18.00
513	59484	HEACOCK ST	15,283	35	50	97.92	1.33	0.75	78.00	4.00	18.00
514	59486	GRAHAM ST	8,476	40	50	98.45	1.18	0.37	78.00	4.00	18.00
515	59487	EUCALYPTUS AVE	14,629	40	50	95.86	2.09	2.05	78.00	4.00	18.00
516	59488	INDIAN ST	7,999	35	50	98.07	1.47	0.46	78.00	4.00	18.00
517	59490	EUCALYPTUS AVE	10,367	40	50	95.05	2.20	2.75	78.00	4.00	18.00
518	59491	CANYON SPRINGS PKY	1,468	40	50	98.61	0.67	0.72	78.00	4.00	18.00
519	59493	EUCALYPTUS AVE	11,476	40	50	95.27	2.25	2.48	78.00	4.00	18.00
520	59494	COTTONWOOD AVE	6,935	45	50	98.76	0.98	0.26	78.00	4.00	18.00
521	59495	INDIAN ST	1,948	40	50	98.63	1.09	0.28	78.00	4.00	18.00
522	59543	FREDERICK ST	4,976	40	50	96.02	2.22	1.76	78.00	4.00	18.00
523	59544	CACTUS AVE	53,900	50	50	95.92	2.16	1.92	78.00	4.00	18.00
524	59545	ELSWORTH ST	13,089	40	50	94.61	1.94	3.45	78.00	4.00	18.00
525	59546	CACTUS AVE	59,100	50	50	95.02	2.45	2.53	78.00	4.00	18.00
526	59547	ELSWORTH ST	5,005	40	50	97.97	1.42	0.61	78.00	4.00	18.00
527	59548	ALESSANDRO BLVD	51,018	45	50	95.57	2.05	2.38	78.00	4.00	18.00
528	59549	E ALESSANDRO BLVD	57,230	45	50	95.44	2.18	2.38	78.00	4.00	18.00
529	59550	OLD I-215 FRONTAGE RD	15,976	50	50	95.59	2.38	2.03	78.00	4.00	18.00
530	59552	TOWN CIR	20,934	30	50	96.31	2.50	1.19	78.00	4.00	18.00
531	59553	TOWN CIR	926	30	50	100.00	0.00	0.00	78.00	4.00	18.00
532	59554	COTTONWOOD AVE	8,143	40	50	98.37	1.21	0.42	78.00	4.00	18.00
533	59556	DAY ST	23,847	25	50	96.57	1.81	1.62	78.00	4.00	18.00
534	59558	MEMORIAL WAY	5,067	40	50	99.02	0.83	0.15	78.00	4.00	18.00
535	59559	CORPORATE CENTRE PL	63	40	50	95.15	1.95	2.90	78.00	4.00	18.00
536	59560	TOWN CIR	14,288	30	50	98.74	1.02	0.24	78.00	4.00	18.00
537	59561	TOWN CIR	926	30	50	100.00	0.00	0.00	78.00	4.00	18.00
538	59562	FREDERICK ST	10,825	40	50	98.20	1.01	0.79	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

539	59563	ELSWORTH ST	7,542	35	50	98.06	1.30	0.64	78.00	4.00	18.00
540	59564	ALESSANDRO BLVD	24,431	45	50	96.30	1.88	1.82	78.00	4.00	18.00
541	59565	EUCALYPTUS AVE	18,990	40	50	96.14	2.11	1.75	78.00	4.00	18.00
542	59567	ELSWORTH ST	8,967	35	50	98.02	1.49	0.49	78.00	4.00	18.00
543	59568	COTTONWOOD AVE	4,222	40	50	98.47	1.05	0.48	78.00	4.00	18.00
544	59569	COTTONWOOD AVE	12,621	45	50	98.63	0.96	0.41	78.00	4.00	18.00
545	59570	DAY ST	23,570	40	50	94.74	2.23	3.03	78.00	4.00	18.00
546	59572	CORPORATE CENTRE PL	63	40	50	95.15	1.95	2.90	78.00	4.00	18.00
547	59574	DAY ST	8,752	40	50	98.42	1.03	0.55	78.00	4.00	18.00
548	59575	CACTUS AVE	13,000	45	50	98.31	1.23	0.46	78.00	4.00	18.00
549	59576	CACTUS AVE	13,000	45	50	98.39	1.17	0.44	78.00	4.00	18.00
550	59577	COTTONWOOD AVE	3,676	45	50	97.63	1.88	0.49	78.00	4.00	18.00
551	59578	MORRISON ST	3,007	35	50	99.01	0.93	0.06	78.00	4.00	18.00
552	59579	ALESSANDRO BLVD	23,712	50	50	96.71	2.05	1.24	78.00	4.00	18.00
553	59580	LASSELLE ST	14,877	40	50	97.73	1.61	0.66	78.00	4.00	18.00
554	59581	KITCHING ST	6,183	40	50	98.87	0.90	0.23	78.00	4.00	18.00
555	59582	ALESSANDRO BLVD	22,460	45	50	95.92	2.45	1.63	78.00	4.00	18.00
556	59583	EUCALYPTUS AVE	21,351	40	50	96.26	1.87	1.87	78.00	4.00	18.00
557	59585	DRACAEA AVE	5,102	35	50	98.57	1.12	0.31	78.00	4.00	18.00
558	59587	LASSELLE ST	10,843	45	50	98.94	0.92	0.14	78.00	4.00	18.00
559	59589	CACTUS AVE	24,900	40	50	97.13	2.17	0.70	78.00	4.00	18.00
560	59590	HEACOCK ST	19,859	50	50	96.10	2.07	1.83	78.00	4.00	18.00
561	59591	ELDER AVE	4,185	35	50	98.60	1.11	0.29	78.00	4.00	18.00
562	59592	SUNNYMEAD BLVD	18,979	40	50	98.11	1.26	0.63	78.00	4.00	18.00
563	59593	LASSELLE ST	1,486	40	50	98.82	1.12	0.06	78.00	4.00	18.00
564	59594	EUCALYPTUS AVE	14,082	40	50	96.02	1.90	2.08	78.00	4.00	18.00
565	59595	EUCALYPTUS AVE	14,219	40	50	95.87	2.02	2.11	78.00	4.00	18.00
566	59596	SUNNYMEAD BLVD	24,113	40	50	97.71	1.44	0.85	78.00	4.00	18.00
567	59597	EUCALYPTUS AVE	12,463	40	50	95.65	2.00	2.35	78.00	4.00	18.00
568	59598	COTTONWOOD AVE	2,576	45	50	98.86	0.87	0.27	78.00	4.00	18.00
569	59599	MORRISON ST	4,841	35	50	98.70	1.15	0.15	78.00	4.00	18.00
570	59600	KITCHING ST	2,652	40	50	98.64	1.18	0.18	78.00	4.00	18.00
571	59601	PERRIS BLVD	39,092	40	50	97.86	1.33	0.81	78.00	4.00	18.00
572	59602	CACTUS AVE	24,900	40	50	97.57	1.88	0.55	78.00	4.00	18.00
573	59603	CACTUS AVE	24,900	40	50	98.45	1.23	0.32	78.00	4.00	18.00
574	59605	PERRIS BLVD	39,598	45	50	97.90	1.36	0.74	78.00	4.00	18.00
575	59606	GENTIAN AVE	4,205	45	50	98.72	1.19	0.09	78.00	4.00	18.00
576	59607	COTTONWOOD AVE	6,253	45	50	98.70	1.01	0.29	78.00	4.00	18.00
577	59608	PERRIS BLVD	36,447	40	50	97.71	1.41	0.88	78.00	4.00	18.00
578	59609	IRONWOOD AVE	7,056	40	50	97.35	1.19	1.46	78.00	4.00	18.00
579	59610	INDIAN ST	3,217	35	50	98.91	0.91	0.18	78.00	4.00	18.00
580	59611	PERRIS BLVD	28,436	40	50	97.88	1.44	0.68	78.00	4.00	18.00
581	59612	DRACAEA AVE	2,261	35	50	98.87	0.92	0.21	78.00	4.00	18.00
582	59613	HEACOCK ST	16,161	50	50	96.59	2.03	1.38	78.00	4.00	18.00
583	59614	COTTONWOOD AVE	8,083	45	50	98.33	1.27	0.40	78.00	4.00	18.00
584	59615	LOCUST AVE	7,969	40	50	96.88	2.16	0.96	78.00	4.00	18.00
585	59616	PERRIS BLVD	35,518	40	50	97.61	1.44	0.95	78.00	4.00	18.00
586	59618	SUNNYMEAD BLVD	11,347	35	50	97.67	1.43	0.90	78.00	4.00	18.00
587	59620	PERRIS BLVD	36,034	40	50	97.57	1.45	0.98	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

588	59621	EUCALYPTUS AVE	13,631	40	50	96.01	1.87	2.12	78.00	4.00	18.00
589	59622	INDIAN ST	3,072	35	50	98.70	1.06	0.24	78.00	4.00	18.00
590	59623	DRACAEA AVE	3,827	35	50	98.70	0.99	0.31	78.00	4.00	18.00
591	59624	ALESSANDRO BLVD	24,216	45	50	96.52	2.11	1.37	78.00	4.00	18.00
592	59628	RECHE VISTA DR	16,553	50	50	96.51	2.17	1.32	78.00	4.00	18.00
593	59630	LAKE VISTA RD	3,069	25	50	98.62	1.30	0.08	78.00	4.00	18.00
594	59631	HIDDEN SPRINGS DR	7,750	35	50	98.90	0.99	0.11	78.00	4.00	18.00
595	60043	GILMAN SPRINGS RD	46,200	55	50	95.63	1.97	2.40	78.00	4.00	18.00
596	60044	GILMAN SPRINGS RD	46,200	55	50	95.70	2.05	2.25	78.00	4.00	18.00
597	60046	GILMAN SPRINGS RD	46,200	55	50	95.92	1.93	2.15	78.00	4.00	18.00
598	60047	JACK RABBIT TRL	11,036	45	50	96.09	1.98	1.93	78.00	4.00	18.00
599	60115	MORENO BEACH DR	15,263	50	50	96.50	2.12	1.38	78.00	4.00	18.00
600	60131	PERRIS BLVD	4,169	50	50	97.36	1.96	0.68	78.00	4.00	18.00
601	60132	CANYON SPRINGS PKY	710	40	50	97.71	1.52	0.77	78.00	4.00	18.00
602	60133	ALESSANDRO BLVD	5,307	50	50	98.30	1.22	0.48	78.00	4.00	18.00
603	60134	CORPORATE CENTRE PL	63	40	50	95.15	1.95	2.90	78.00	4.00	18.00
604	60136	CACTUS AVE	11,700	50	50	97.38	1.86	0.76	78.00	4.00	18.00
605	60142	EUCALYPTUS AVE	8,745	40	50	93.41	3.04	3.55	78.00	4.00	18.00
606	60143	EUCALYPTUS AVE	7,010	40	50	92.64	3.25	4.11	78.00	4.00	18.00
607	60146	QUINCY ST	2,267	45	50	98.83	0.94	0.23	78.00	4.00	18.00
608	60147	RECHE VISTA DR	16,553	50	50	96.51	2.17	1.32	78.00	4.00	18.00
609	60148	EUCALYPTUS AVE	31,400	40	50	80.10	9.50	10.40	78.00	4.00	18.00
610	60149	GILMAN SPRINGS RD	40,400	55	50	95.60	2.07	2.33	78.00	4.00	18.00
611	60150	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
612	60151	ALESSANDRO BLVD	4,681	40	50	95.66	2.62	1.72	78.00	4.00	18.00
613	60152	ALESSANDRO BLVD	2,839	40	50	93.19	3.97	2.84	78.00	4.00	18.00
614	60155	GILMAN SPRINGS RD	46,200	55	50	95.70	2.05	2.25	78.00	4.00	18.00
615	60173	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
616	60491	IRONWOOD AVE	10,405	45	50	96.68	1.25	2.07	78.00	4.00	18.00
617	61193	GRAEBER ST	15,490	25	50	98.17	1.22	0.61	78.00	4.00	18.00
618	61273	JOHN F KENNEDY DR	14,880	50	50	92.61	3.94	3.45	78.00	4.00	18.00
619	61547	PIGEON PASS RD	792	45	50	97.76	1.77	0.47	78.00	4.00	18.00
620	61550	PIGEON PASS RD	792	45	50	97.76	1.77	0.47	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040  
**Assessment Metric:** Hard

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Hard				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	3490	CACTUS AVE	76.8	69.5	73.9	79.1	129	406	1,285	4,064	12,852	40,642
2	7726	DAY ST	68.7	60.2	66.1	71.0	20	63	199	629	1,991	6,295
3	7889	ENCELIA AVE	61.7	60.1	65.8	68.0	10	32	100	315	998	3,155
4	9102	PIGEON PASS RD	70.7	61.5	64.1	72.0	25	79	251	792	2,506	7,924
5	11519	CACTUS AVE	76.9	68.5	72.7	78.7	117	371	1,172	3,707	11,721	37,066
6	11520	CACTUS AVE	76.9	68.8	73.7	79.0	126	397	1,256	3,972	12,559	39,716
7	11522	PIGEON PASS RD	70.7	61.5	64.2	72.0	25	79	251	792	2,506	7,924
8	11523	FREDERICK ST	71.0	62.0	65.2	72.4	27	87	275	869	2,748	8,689
9	11524	SUNNYMEAD BLVD	66.9	58.7	63.3	68.9	12	39	123	388	1,227	3,881
10	11525	FREDERICK ST	71.8	63.1	67.2	73.5	35	112	354	1,119	3,540	11,194
11	11526	HEMLOCK AVE	61.5	53.0	51.7	62.5	3	9	28	89	281	889
12	11529	E ALESSANDRO BLVD	75.4	67.3	72.2	77.5	89	281	889	2,812	8,891	28,117
13	11530	E ALESSANDRO BLVD	75.4	67.3	72.1	77.5	89	281	889	2,812	8,891	28,117
14	11532	DAY ST	70.1	62.7	68.9	73.0	32	100	315	998	3,155	9,976
15	11533	DAY ST	69.9	63.1	68.5	72.7	29	93	294	931	2,944	9,310
16	11534	DAY ST	68.7	60.2	66.1	71.0	20	63	199	629	1,991	6,295
17	11535	DAY ST	66.8	55.9	57.8	67.6	9	29	91	288	910	2,877
18	11543	NASON ST	68.9	60.0	64.5	70.6	18	57	182	574	1,815	5,741
19	11544	NASON ST	63.6	53.5	50.6	64.2	4	13	42	132	416	1,315
20	11545	NASON ST	68.5	59.7	64.4	70.3	17	54	169	536	1,694	5,358
21	11547	SUNNYMEAD BLVD	70.3	60.9	63.5	71.5	22	71	223	706	2,233	7,063
22	11548	SUNNYMEAD BLVD	69.6	59.7	61.2	70.6	18	57	182	574	1,815	5,741
23	11550	SUNNYMEAD BLVD	69.1	60.8	64.3	70.8	19	60	190	601	1,901	6,011
24	11551	SUNNYMEAD BLVD	65.4	56.7	59.9	66.9	8	24	77	245	774	2,449
25	11594	THEODORE AVE	71.3	69.0	74.9	77.2	83	262	830	2,624	8,298	26,240
26	11595	THEODORE AVE	61.3	52.9	55.9	62.9	3	10	31	97	308	975
27	11598	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
28	11618	MORENO BEACH DR	71.8	64.7	70.6	74.7	47	148	467	1,476	4,666	14,756
29	11619	MORENO BEACH DR	68.8	60.4	63.8	70.4	17	55	173	548	1,734	5,482
30	11620	MORENO BEACH DR	67.9	61.6	67.2	71.1	20	64	204	644	2,037	6,441
31	11628	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
32	11629	REDLANDS BLVD	71.3	66.0	69.2	74.1	41	129	406	1,285	4,064	12,852
33	11630	REDLANDS BLVD	69.5	62.8	70.0	73.2	33	104	330	1,045	3,303	10,446
34	27569	ALESSANDRO BLVD	53.8	39.3	37.5	54.0	0	1	4	13	40	126
35	27588	IRONWOOD AVE	57.4	41.4	45.2	57.7	1	3	9	29	93	294
36	27732	MORENO BEACH DR	69.0	58.5	61.5	70.1	16	51	162	512	1,618	5,116
37	27733	MORENO BEACH DR	71.2	60.4	62.1	72.0	25	79	251	792	2,506	7,924
38	27734	CACTUS AVE	71.2	61.7	61.4	72.0	25	79	251	792	2,506	7,924

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

39	27735	MORENO BEACH DR	73.3	66.0	69.7	75.4	55	173	548	1,734	5,482	17,337
40	27736	JOHN F KENNEDY DR	70.6	64.3	68.4	73.3	34	107	338	1,069	3,380	10,690
41	27783	MORENO BEACH DR	70.9	61.9	64.4	72.2	26	83	262	830	2,624	8,298
42	27784	ALESSANDRO BLVD	63.1	56.4	59.4	65.3	5	17	54	169	536	1,694
43	27785	ALESSANDRO BLVD	70.0	61.8	63.8	71.4	22	69	218	690	2,183	6,902
44	27786	MORENO BEACH DR	66.2	55.8	58.5	67.2	8	26	83	262	830	2,624
45	27787	COTTONWOOD AVE	68.8	60.7	63.0	70.3	17	54	169	536	1,694	5,358
46	27788	COTTONWOOD AVE	61.1	50.9	52.7	62.0	3	8	25	79	251	792
47	27805	IRONWOOD AVE	67.5	55.5	59.5	68.4	11	35	109	346	1,094	3,459
48	27806	IRONWOOD AVE	66.5	57.2	62.5	68.3	11	34	107	338	1,069	3,380
49	27862	REDLANDS BLVD	71.1	65.8	69.0	73.9	39	123	388	1,227	3,881	12,274
50	27863	REDLANDS BLVD	70.9	65.7	68.9	73.8	38	120	379	1,199	3,793	11,994
51	27864	REDLANDS BLVD	70.6	63.9	71.2	74.3	43	135	426	1,346	4,256	13,458
52	27865	REDLANDS BLVD	70.6	63.9	71.2	74.3	43	135	426	1,346	4,256	13,458
53	28114	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
54	28136	GILMAN SPRINGS RD	77.0	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
55	28170	IRONWOOD AVE	65.9	57.0	62.1	67.8	10	30	95	301	953	3,013
56	28181	NASON ST	70.7	62.0	66.2	72.4	27	87	275	869	2,748	8,689
57	28182	EUCALYPTUS AVE	67.9	60.1	65.1	70.2	17	52	166	524	1,656	5,236
58	28183	NASON ST	70.2	61.5	65.8	71.9	24	77	245	774	2,449	7,744
59	28184	COTTONWOOD AVE	63.6	54.7	53.4	64.5	4	14	45	141	446	1,409
60	28191	ALESSANDRO BLVD	73.5	64.7	67.1	74.8	48	151	477	1,510	4,775	15,100
61	28198	LASSELLE ST	67.3	57.8	59.5	68.4	11	35	109	346	1,094	3,459
62	28199	LASSELLE ST	68.3	59.5	59.6	69.4	14	44	138	435	1,377	4,355
63	28200	COTTONWOOD AVE	65.9	55.4	53.1	66.5	7	22	71	223	706	2,233
64	28203	LASSELLE ST	70.7	60.2	59.3	71.4	22	69	218	690	2,183	6,902
65	28204	LASSELLE ST	72.0	61.3	59.4	72.5	28	89	281	889	2,812	8,891
66	28205	GENTIAN AVE	65.6	54.9	48.8	66.0	6	20	63	199	629	1,991
67	28206	EUCALYPTUS AVE	67.9	59.8	65.0	70.1	16	51	162	512	1,618	5,116
68	28207	EUCALYPTUS AVE	69.7	61.5	66.4	71.8	24	76	239	757	2,393	7,568
69	28208	LASSELLE ST	68.1	55.4	52.0	68.4	11	35	109	346	1,094	3,459
70	28209	ALESSANDRO BLVD	72.0	63.6	66.1	73.5	35	112	354	1,119	3,540	11,194
71	28210	LASSELLE ST	71.0	60.2	57.9	71.5	22	71	223	706	2,233	7,063
72	28211	JOHN F KENNEDY DR	69.7	60.1	59.2	70.5	18	56	177	561	1,774	5,610
73	28212	COTTONWOOD AVE	66.0	55.1	53.2	66.6	7	23	72	229	723	2,285
74	28213	IRONWOOD AVE	67.6	57.9	61.6	68.9	12	39	123	388	1,227	3,881
75	28254	LASSELLE ST	73.0	63.2	65.9	74.1	41	129	406	1,285	4,064	12,852
76	28255	IRIS AVE	72.0	64.5	68.3	74.1	41	129	406	1,285	4,064	12,852
77	28256	KRAMERIA AVE	61.1	49.2	45.7	61.5	2	7	22	71	223	706
78	28283	LAKE PERRIS DR	68.5	60.2	62.3	70.0	16	50	158	500	1,581	5,000
79	28305	PERRIS BLVD	72.0	62.0	64.0	73.0	32	100	315	998	3,155	9,976
80	28306	MANZANITA AVE	59.7	49.0	48.9	60.4	2	5	17	55	173	548
81	28307	PERRIS BLVD	72.0	62.1	64.1	73.0	32	100	315	998	3,155	9,976
82	28320	PERRIS BLVD	72.2	62.0	63.9	73.1	32	102	323	1,021	3,228	10,209
83	28334	MANZANITA AVE	59.4	49.0	48.9	60.1	2	5	16	51	162	512
84	28335	SUNNYMEAD RANCH PKY	66.1	54.6	53.6	66.6	7	23	72	229	723	2,285
85	28342	PERRIS BLVD	72.9	63.4	65.9	74.1	41	129	406	1,285	4,064	12,852
86	28343	PERRIS BLVD	72.0	62.6	65.6	73.3	34	107	338	1,069	3,380	10,690
87	28344	EUCALYPTUS AVE	68.0	59.8	65.0	70.2	17	52	166	524	1,656	5,236

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

88	28345	EUCALYPTUS AVE	67.8	59.6	65.0	70.0	16	50	158	500	1,581	5,000
89	28347	N PERRIS BLVD	74.6	65.9	68.5	76.0	63	199	629	1,991	6,295	19,905
90	28348	NANDINA AVE	53.2	45.8	47.6	54.9	0	2	5	15	49	155
91	28349	PERRIS BLVD	72.4	62.8	65.5	73.6	36	115	362	1,145	3,622	11,454
92	28350	COTTONWOOD AVE	67.1	56.4	55.9	67.7	9	29	93	294	931	2,944
93	28351	COTTONWOOD AVE	65.9	54.1	52.7	66.4	7	22	69	218	690	2,183
94	28354	PERRIS BLVD	72.1	62.7	65.8	73.4	35	109	346	1,094	3,459	10,939
95	28360	PERRIS BLVD	74.3	65.3	68.2	75.7	59	186	587	1,858	5,874	18,577
96	28361	KRAMERIA AVE	67.1	59.1	62.2	68.8	12	38	120	379	1,199	3,793
97	28362	PERRIS BLVD	73.3	64.0	66.7	74.5	45	141	446	1,409	4,456	14,092
98	28363	PERRIS BLVD	72.5	62.9	64.2	73.5	35	112	354	1,119	3,540	11,194
99	28364	PERRIS BLVD	73.4	63.3	64.9	74.4	44	138	435	1,377	4,355	13,771
100	28365	IRIS AVE	70.4	62.1	66.1	72.2	26	83	262	830	2,624	8,298
101	28366	IRIS AVE	64.6	56.6	59.0	66.2	7	21	66	208	659	2,084
102	28373	COTTONWOOD AVE	58.6	49.2	48.8	59.4	1	4	14	44	138	435
103	28383	PERRIS BLVD	72.9	63.1	65.4	74.0	40	126	397	1,256	3,972	12,559
104	28384	JOHN F KENNEDY DR	70.5	60.4	59.6	71.2	21	66	208	659	2,084	6,591
105	28385	JOHN F KENNEDY DR	69.3	59.2	60.5	70.2	17	52	166	524	1,656	5,236
106	28386	PERRIS BLVD	72.1	62.6	65.4	73.3	34	107	338	1,069	3,380	10,690
107	28387	CACTUS AVE	70.5	61.6	60.0	71.3	21	67	213	674	2,133	6,745
108	28388	CACTUS AVE	70.5	61.3	60.5	71.3	21	67	213	674	2,133	6,745
109	28389	ALESSANDRO BLVD	72.6	63.8	66.0	73.9	39	123	388	1,227	3,881	12,274
110	28390	ALESSANDRO BLVD	72.3	63.0	65.4	73.5	35	112	354	1,119	3,540	11,194
111	28393	IRONWOOD AVE	65.0	54.7	60.4	66.6	7	23	72	229	723	2,285
112	28396	KITCHING ST	61.4	49.0	42.0	61.7	2	7	23	74	234	740
113	28397	IRIS AVE	72.0	64.5	68.3	74.1	41	129	406	1,285	4,064	12,852
114	28399	KITCHING ST	64.5	54.3	46.8	65.0	5	16	50	158	500	1,581
115	28400	ALESSANDRO BLVD	72.3	63.0	65.4	73.5	35	112	354	1,119	3,540	11,194
116	28401	KITCHING ST	62.2	51.3	45.5	62.6	3	9	29	91	288	910
117	28402	KITCHING ST	58.2	48.8	45.4	58.9	1	4	12	39	123	388
118	28424	KITCHING ST	64.3	53.9	53.4	65.0	5	16	50	158	500	1,581
119	28425	KITCHING ST	64.1	53.4	50.7	64.6	5	14	46	144	456	1,442
120	28426	COTTONWOOD AVE	66.1	55.6	53.3	66.7	7	23	74	234	740	2,339
121	28446	HEACOCK ST	68.6	58.7	59.8	69.5	14	45	141	446	1,409	4,456
122	28447	HEACOCK ST	68.2	58.5	59.5	69.2	13	42	132	416	1,315	4,159
123	28448	COTTONWOOD AVE	67.3	55.4	54.8	67.8	10	30	95	301	953	3,013
124	28449	COTTONWOOD AVE	68.3	56.7	57.7	68.9	12	39	123	388	1,227	3,881
125	28450	HEACOCK ST	70.5	59.4	59.1	71.1	20	64	204	644	2,037	6,441
126	28451	IRONWOOD AVE	65.3	55.2	60.8	66.9	8	24	77	245	774	2,449
127	28452	IRONWOOD AVE	67.1	57.5	61.8	68.6	11	36	115	362	1,145	3,622
128	28453	HEACOCK ST	66.9	57.6	62.0	68.5	11	35	112	354	1,119	3,540
129	28454	HEACOCK ST	66.7	58.0	59.5	67.9	10	31	97	308	975	3,083
130	28455	EUCALYPTUS AVE	66.7	59.8	65.0	69.4	14	44	138	435	1,377	4,355
131	28458	HEACOCK ST	67.7	59.3	63.9	69.6	14	46	144	456	1,442	4,560
132	28459	SUNNYMEAD BLVD	65.9	56.2	59.2	67.1	8	26	81	256	811	2,564
133	28460	SUNNYMEAD BLVD	67.0	58.6	63.0	68.9	12	39	123	388	1,227	3,881
134	28461	HEACOCK ST	67.7	59.1	62.0	69.2	13	42	132	416	1,315	4,159
135	28462	HEACOCK ST	67.7	59.5	64.0	69.7	15	47	148	467	1,476	4,666
136	28463	HEACOCK ST	71.4	62.3	64.8	72.7	29	93	294	931	2,944	9,310

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

137	28464	HEACOCK ST	72.8	63.8	67.9	74.4	44	138	435	1,377	4,355	13,771
138	28465	ALESSANDRO BLVD	72.5	62.8	65.3	73.7	37	117	371	1,172	3,707	11,721
139	28466	ALESSANDRO BLVD	72.4	62.6	65.3	73.5	35	112	354	1,119	3,540	11,194
140	28467	IRONWOOD AVE	65.9	57.0	62.1	67.8	10	30	95	301	953	3,013
141	28468	MANZANITA AVE	58.8	45.7	37.3	59.0	1	4	13	40	126	397
142	28469	HEACOCK ST	66.0	56.5	55.6	66.8	8	24	76	239	757	2,393
143	28470	SUNNYMEAD RANCH PKY	66.3	55.6	54.4	66.9	8	24	77	245	774	2,449
144	28471	HEACOCK ST	72.1	63.4	66.6	73.6	36	115	362	1,145	3,622	11,454
145	28472	MEYER ST	68.9	58.1	59.7	69.7	15	47	148	467	1,476	4,666
146	28473	N WEBSTER AVE	71.9	63.2	65.8	73.3	34	107	338	1,069	3,380	10,690
147	28482	HEACOCK ST	72.3	63.8	67.8	74.1	41	129	406	1,285	4,064	12,852
148	28483	JOHN F KENNEDY DR	69.0	59.2	61.0	70.1	16	51	162	512	1,618	5,116
149	28489	CACTUS AVE	70.5	61.3	61.9	71.5	22	71	223	706	2,233	7,063
150	28490	CACTUS AVE	76.5	67.5	71.3	78.1	102	323	1,021	3,228	10,209	32,283
151	28491	INDIAN ST	63.8	53.8	52.0	64.5	4	14	45	141	446	1,409
152	28492	INDIAN ST	63.5	54.8	54.9	64.6	5	14	46	144	456	1,442
153	28493	INDIAN ST	64.3	52.9	53.7	65.0	5	16	50	158	500	1,581
154	28494	INDIAN ST	63.4	54.5	53.4	64.3	4	13	43	135	426	1,346
155	28495	INDIAN ST	60.9	50.6	48.8	61.5	2	7	22	71	223	706
156	28496	INDIAN ST	60.0	48.7	48.2	60.5	2	6	18	56	177	561
157	28497	INDIAN ST	64.3	53.5	50.9	64.9	5	15	49	155	489	1,545
158	28507	INDIAN AVE	64.6	53.4	50.4	65.1	5	16	51	162	512	1,618
159	28534	GRAHAM ST	60.5	48.9	49.1	61.1	2	6	20	64	204	644
160	28537	GRAHAM ST	63.7	52.7	51.3	64.2	4	13	42	132	416	1,315
161	28538	GRAHAM ST	64.8	54.3	54.1	65.5	6	18	56	177	561	1,774
162	28539	COTTONWOOD AVE	69.3	57.5	58.4	69.9	15	49	155	489	1,545	4,886
163	28540	EUCALYPTUS AVE	66.4	59.5	64.9	69.2	13	42	132	416	1,315	4,159
164	28541	GRAHAM ST	65.0	55.8	57.6	66.2	7	21	66	208	659	2,084
165	28542	ALESSANDRO BLVD	72.2	62.6	66.1	73.5	35	112	354	1,119	3,540	11,194
166	28551	IRONWOOD AVE	64.5	55.4	63.6	67.4	9	27	87	275	869	2,748
167	28553	MEYER ST	68.9	58.1	59.7	69.7	15	47	148	467	1,476	4,666
168	28558	RIVERSIDE DR	57.2	49.5	54.0	59.4	1	4	14	44	138	435
169	28559	CACTUS AVE	76.5	67.8	71.6	78.1	102	323	1,021	3,228	10,209	32,283
170	28674	ELSWORTH ST	63.9	54.7	55.8	65.0	5	16	50	158	500	1,581
171	28675	EUCALYPTUS AVE	69.2	61.6	65.6	71.3	21	67	213	674	2,133	6,745
172	28676	EUCALYPTUS AVE	67.0	60.2	65.4	69.8	15	48	151	477	1,510	4,775
173	28678	ELSWORTH ST	63.5	54.5	56.4	64.7	5	15	47	148	467	1,476
174	28679	COTTONWOOD AVE	62.8	52.0	53.4	63.6	4	11	36	115	362	1,145
175	28680	COTTONWOOD AVE	65.6	55.5	55.7	66.4	7	22	69	218	690	2,183
176	28685	ELSWORTH ST	63.5	54.0	55.2	64.5	4	14	45	141	446	1,409
177	28686	ALESSANDRO BLVD	71.8	62.9	67.3	73.5	35	112	354	1,119	3,540	11,194
178	28687	ALESSANDRO BLVD	72.3	64.0	69.6	74.6	46	144	456	1,442	4,560	14,420
179	28688	ELSWORTH ST	65.6	56.5	58.9	66.8	8	24	76	239	757	2,393
180	28689	CACTUS AVE	76.5	67.8	71.6	78.2	104	330	1,045	3,303	10,446	33,035
181	28692	MEMORIAL WAY	65.2	53.5	53.5	65.8	6	19	60	190	601	1,901
182	28693	EUCALYPTUS AVE	69.5	63.5	68.2	72.5	28	89	281	889	2,812	8,891
183	28703	TOWN CIR	58.2	49.0	47.4	59.0	1	4	13	40	126	397
184	28729	PIGEON PASS RD	71.1	59.8	58.6	71.7	23	74	234	740	2,339	7,396
185	28730	PIGEON PASS RD	69.2	58.7	57.6	69.8	15	48	151	477	1,510	4,775

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

186	28731	IRONWOOD AVE	68.2	58.4	64.5	70.1	16	51	162	512	1,618	5,116
187	28732	FREDERICK ST	71.2	62.7	66.9	73.0	32	100	315	998	3,155	9,976
188	28733	CENTERPOINT DR	65.2	55.2	55.9	66.0	6	20	63	199	629	1,991
189	28737	PIGEON PASS RD	69.2	57.9	57.2	69.7	15	47	148	467	1,476	4,666
190	28738	PIGEON PASS RD	60.7	50.7	54.1	61.9	2	8	24	77	245	774
191	28739	PIGEON PASS RD	70.2	59.0	57.8	70.7	19	59	186	587	1,858	5,874
192	28740	FREDERICK ST	67.1	55.4	59.8	68.1	10	32	102	323	1,021	3,228
193	28742	PIGEON PASS RD	62.8	53.3	55.6	63.9	4	12	39	123	388	1,227
194	28743	FREDERICK ST	69.1	58.2	61.1	70.0	16	50	158	500	1,581	5,000
195	28744	FREDERICK ST	67.3	56.6	59.9	68.3	11	34	107	338	1,069	3,380
196	28751	FREDERICK ST	62.4	51.5	52.2	63.1	3	10	32	102	323	1,021
197	28760	PIGEON PASS RD	59.6	49.9	49.2	60.4	2	5	17	55	173	548
198	28775	EUCALYPTUS AVE	70.4	65.6	70.4	74.1	41	129	406	1,285	4,064	12,852
199	28776	EUCALYPTUS AVE	70.9	65.8	70.6	74.4	44	138	435	1,377	4,355	13,771
200	28781	ALESSANDRO BLVD	75.0	66.8	72.0	77.2	83	262	830	2,624	8,298	26,240
201	28789	E ALESSANDRO BLVD	76.0	68.0	72.6	78.1	102	323	1,021	3,228	10,209	32,283
202	28808	CACTUS AVE	76.8	69.6	73.9	79.1	129	406	1,285	4,064	12,852	40,642
203	28815	DAY ST	68.2	60.8	65.7	70.6	18	57	182	574	1,815	5,741
204	28816	DAY ST	69.0	63.0	68.4	72.3	27	85	269	849	2,685	8,491
205	28817	DAY ST	64.6	59.4	66.3	69.1	13	41	129	406	1,285	4,064
206	28823	BOX SPRINGS RD	69.3	59.0	65.2	71.0	20	63	199	629	1,991	6,295
207	28829	BOX SPRINGS RD	70.2	60.7	65.7	71.8	24	76	239	757	2,393	7,568
208	32731	BOX SPRINGS RD	70.5	61.0	65.9	72.1	26	81	256	811	2,564	8,109
209	34467	E ALESSANDRO BLVD	75.3	67.1	71.9	77.4	87	275	869	2,748	8,689	27,477
210	34564	HEMLOCK AVE	64.3	57.8	62.9	67.2	8	26	83	262	830	2,624
211	36199	IRONWOOD AVE	64.3	55.3	63.6	67.2	8	26	83	262	830	2,624
212	36202	PERRIS BLVD	72.0	62.5	64.0	73.1	32	102	323	1,021	3,228	10,209
213	36241	GILMAN SPRINGS RD	76.4	66.8	72.9	78.3	107	338	1,069	3,380	10,690	33,804
214	36242	GILMAN SPRINGS RD	77.1	67.1	71.5	78.5	112	354	1,119	3,540	11,194	35,397
215	36243	GILMAN SPRINGS RD	77.0	67.4	71.8	78.5	112	354	1,119	3,540	11,194	35,397
216	36244	GILMAN SPRINGS RD	77.0	67.3	72.1	78.6	115	362	1,145	3,622	11,454	36,222
217	36245	JACK RABBIT TRL	68.3	59.7	64.1	70.1	16	51	162	512	1,618	5,116
218	36246	ALESSANDRO BLVD	66.5	55.1	55.2	67.1	8	26	81	256	811	2,564
219	36247	REDLANDS BLVD	73.0	66.7	69.5	75.2	52	166	524	1,656	5,236	16,557
220	36248	VIA DEL LAGO	67.2	59.2	61.5	68.7	12	37	117	371	1,172	3,707
221	36249	IRIS AVE	75.4	67.2	70.6	77.1	81	256	811	2,564	8,109	25,643
222	36930	IRIS AVE	72.7	65.4	69.1	74.8	48	151	477	1,510	4,775	15,100
223	37189	MORENO BEACH DR	68.2	59.4	60.1	69.3	13	43	135	426	1,346	4,256
224	37192	ELSWORTH ST	63.5	54.0	55.2	64.5	4	14	45	141	446	1,409
225	41042	HIDDEN SPRINGS DR	50.6	38.9	29.4	50.9	0	1	2	6	19	62
226	41043	DRACAEA AVE	51.8	40.5	36.7	52.2	0	1	3	8	26	83
227	41044	DRACAEA AVE	58.8	48.1	48.8	59.5	1	4	14	45	141	446
228	41045	DRACAEA AVE	59.9	49.4	49.2	60.6	2	6	18	57	182	574
229	41046	DRACAEA AVE	60.7	50.4	50.6	61.5	2	7	22	71	223	706
230	41047	DRACAEA AVE	58.4	47.8	46.6	59.0	1	4	13	40	126	397
231	41048	DRACAEA AVE	62.6	52.5	52.5	63.3	3	11	34	107	338	1,069
232	41049	KITCHING ST	66.1	55.6	55.5	66.8	8	24	76	239	757	2,393
233	41050	LASSELLE ST	67.2	57.8	59.8	68.3	11	34	107	338	1,069	3,380
234	41051	PERRIS BLVD	72.7	63.3	65.9	73.9	39	123	388	1,227	3,881	12,274

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

235	41052	INDIAN ST	61.5	51.3	50.2	62.2	3	8	26	83	262	830
236	41053	HEACOCK ST	68.4	58.5	59.8	69.3	13	43	135	426	1,346	4,256
237	41054	GRAHAM ST	62.2	51.2	47.8	62.7	3	9	29	93	294	931
238	41055	FREDERICK ST	69.2	58.4	61.3	70.2	17	52	166	524	1,656	5,236
239	41056	RECHE VISTA DR	71.5	62.6	64.6	72.7	29	93	294	931	2,944	9,310
240	41057	VIA DEL LAGO	63.8	0.0	0.0	63.8	4	12	38	120	379	1,199
241	41059	ALTA CALLE	67.2	59.1	61.5	68.7	12	37	117	371	1,172	3,707
242	41060	ALTA CALLE	65.7	57.4	60.8	67.4	9	27	87	275	869	2,748
243	41061	ALTA CALLE	66.1	58.1	61.5	67.9	10	31	97	308	975	3,083
244	41062	LAKE PERRIS DR	66.3	58.9	61.6	68.2	10	33	104	330	1,045	3,303
245	41064	LAKE PERRIS DR	63.7	56.2	60.0	65.7	6	19	59	186	587	1,858
246	41065	EVANS RD	72.8	63.0	65.7	73.9	39	123	388	1,227	3,881	12,274
247	41066	LASSELLE ST	72.8	63.0	65.7	73.9	39	123	388	1,227	3,881	12,274
248	41067	VIA DEL LAGO	64.8	0.0	0.0	64.8	5	15	48	151	477	1,510
249	41068	LAKE PERRIS DR	62.9	55.5	59.3	65.0	5	16	50	158	500	1,581
250	41069	TOWNGATE AVE	68.9	61.8	66.0	71.2	21	66	208	659	2,084	6,591
251	41070	TOWNGATE AVE	68.9	61.8	66.0	71.2	21	66	208	659	2,084	6,591
252	41071	OLD 215 FRONTAGE RD	69.2	61.7	64.4	71.0	20	63	199	629	1,991	6,295
253	41072	OLD 215 FRONTAGE RD	67.5	58.8	62.2	69.0	13	40	126	397	1,256	3,972
254	41073	COTTONWOOD AVE	60.5	55.8	59.0	63.6	4	11	36	115	362	1,145
255	44344	SUNNYMEAD RANCH PKY	63.2	53.2	51.1	63.8	4	12	38	120	379	1,199
256	44345	OLD LAKE DR	66.3	55.6	53.5	66.9	8	24	77	245	774	2,449
257	44346	SUNNYMEAD RANCH PKY	59.1	49.0	49.9	59.9	2	5	15	49	155	489
258	44347	LAKE VISTA RD	54.8	47.9	44.5	55.9	1	2	6	19	62	195
259	44348	HEACOCK ST	64.2	55.4	55.3	65.2	5	17	52	166	524	1,656
260	44355	COTTONWOOD AVE	62.1	49.8	49.2	62.6	3	9	29	91	288	910
261	44356	MORRISON ST	61.7	52.4	45.1	62.3	3	8	27	85	269	849
262	44357	CANYON SPRINGS PKY	59.0	50.2	51.2	60.2	2	5	17	52	166	524
263	44358	MEMORIAL WAY	63.6	51.8	49.2	64.0	4	13	40	126	397	1,256
264	44359	GATEWAY DR	61.0	48.2	50.9	61.6	2	7	23	72	229	723
265	44360	LASSELLE ST	72.8	63.0	65.7	73.9	39	123	388	1,227	3,881	12,274
266	44361	KRAMERIA AVE	61.2	49.3	45.8	61.6	2	7	23	72	229	723
267	44362	KRAMERIA AVE	61.1	49.2	45.7	61.5	2	7	22	71	223	706
268	44464	ALESSANDRO BLVD	73.9	65.4	70.8	76.0	63	199	629	1,991	6,295	19,905
269	44465	N PERRIS BLVD	74.6	65.8	68.5	76.0	63	199	629	1,991	6,295	19,905
270	44807	GILMAN SPRINGS RD	77.0	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
271	44812	TOWN CIR	56.6	0.0	0.0	56.6	1	2	7	23	72	229
272	44813	TOWN CIR	52.7	0.0	0.0	52.7	0	1	3	9	29	93
273	44814	TOWN CIR	56.6	0.0	0.0	56.6	1	2	7	23	72	229
274	44816	TOWN CIR	55.4	42.8	44.8	55.9	1	2	6	19	62	195
275	44823	LASSELLE ST	73.1	63.1	65.7	74.2	42	132	416	1,315	4,159	13,151
276	44826	CACTUS AVE	69.1	60.8	59.5	70.1	16	51	162	512	1,618	5,116
277	44827	CACTUS AVE	69.1	58.3	58.5	69.8	15	48	151	477	1,510	4,775
278	44828	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
279	44829	EUCALYPTUS AVE	66.0	59.8	66.2	69.6	14	46	144	456	1,442	4,560
280	44830	KRAMERIA AVE	61.5	55.0	62.0	65.2	5	17	52	166	524	1,656
281	44831	ALESSANDRO BLVD	72.8	63.8	65.8	74.0	40	126	397	1,256	3,972	12,559
282	44832	LASSELLE ST	72.8	63.0	65.7	73.9	39	123	388	1,227	3,881	12,274
283	44833	QUINCY ST	57.4	49.8	45.7	58.4	1	3	11	35	109	346

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

284	44834	COTTONWOOD AVE	65.6	58.5	61.3	67.5	9	28	89	281	889	2,812
285	46116	N PERRIS BLVD	74.6	65.8	68.5	76.0	63	199	629	1,991	6,295	19,905
286	46264	SAN MICHELLE AV	53.8	47.1	49.2	55.8	1	2	6	19	60	190
287	46868	HEACOCK ST	72.4	63.3	66.9	73.9	39	123	388	1,227	3,881	12,274
288	48026	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
289	48027	IRIS AVE	65.3	56.7	59.4	66.7	7	23	74	234	740	2,339
290	48028	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
291	48029	SAN MICHELLE AV	49.0	47.2	45.0	52.1	0	1	3	8	26	81
292	48030	GRAEBER ST	49.3	39.7	44.7	50.9	0	1	2	6	19	62
293	48031	RIVERSIDE DR	62.7	55.2	59.9	65.0	5	16	50	158	500	1,581
294	48294	LASSELLE ST	57.9	47.2	39.5	58.3	1	3	11	34	107	338
295	48295	RECHE CANYON RD	68.7	61.1	63.8	70.4	17	55	173	548	1,734	5,482
296	48346	EUCALYPTUS AVE	69.7	64.6	69.8	73.4	35	109	346	1,094	3,459	10,939
297	48348	INDIAN ST	67.4	59.2	62.2	69.0	13	40	126	397	1,256	3,972
298	48349	INDIAN ST	67.4	59.2	62.2	69.0	13	40	126	397	1,256	3,972
299	48350	NANDINA AVE	28.1	17.1	16.4	28.7	0	0	0	0	0	0
300	48351	INDIAN ST	67.1	58.7	61.9	68.7	12	37	117	371	1,172	3,707
301	48352	INDIAN ST	67.1	58.7	62.0	68.7	12	37	117	371	1,172	3,707
302	48353	LOCUST AVE	65.4	57.8	59.2	66.9	8	24	77	245	774	2,449
303	48358	E OLEANDER AVE	59.6	53.5	55.1	61.6	2	7	23	72	229	723
304	48366	N PERRIS BLVD	74.5	65.8	68.5	75.9	62	195	615	1,945	6,151	19,452
305	51959	HEACOCK ST	71.0	60.5	61.8	71.8	24	76	239	757	2,393	7,568
306	51963	HEACOCK ST	71.0	60.5	61.8	71.8	24	76	239	757	2,393	7,568
307	51964	NASON ST	71.5	61.7	65.5	72.8	30	95	301	953	3,013	9,527
308	51965	NASON ST	70.2	61.7	64.8	71.8	24	76	239	757	2,393	7,568
309	52667	REDLANDS BLVD	71.3	66.0	69.2	74.1	41	129	406	1,285	4,064	12,852
310	52670	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
311	52672	MORENO BEACH DR	70.0	61.7	65.6	71.8	24	76	239	757	2,393	7,568
312	52673	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
313	52675	REDLANDS BLVD	72.2	68.0	74.5	77.1	81	256	811	2,564	8,109	25,643
314	52679	GILMAN SPRINGS RD	76.4	66.8	72.9	78.3	107	338	1,069	3,380	10,690	33,804
315	52682	GILMAN SPRINGS RD	76.4	66.5	71.9	78.1	102	323	1,021	3,228	10,209	32,283
316	52714	NASON ST	71.6	62.0	64.8	72.8	30	95	301	953	3,013	9,527
317	52715	NASON ST	67.0	57.6	61.2	68.4	11	35	109	346	1,094	3,459
318	53302	N PERRIS BLVD	73.3	64.7	67.2	74.7	47	148	467	1,476	4,666	14,756
319	53307	INDIAN ST	68.3	58.9	59.9	69.3	13	43	135	426	1,346	4,256
320	53313	OLD I-215 FRONTAGE RD	71.4	63.7	66.7	73.2	33	104	330	1,045	3,303	10,446
321	53490	HEACOCK ST	66.7	57.7	60.4	68.0	10	32	100	315	998	3,155
322	53491	PERRIS BLVD	72.1	62.7	65.8	73.4	35	109	346	1,094	3,459	10,939
323	53492	REDLANDS BLVD	70.9	65.7	68.9	73.8	38	120	379	1,199	3,793	11,994
324	54317	HEMLOCK AVE	56.8	48.7	47.6	57.8	1	3	10	30	95	301
325	54318	GRAHAM ST	64.2	53.4	49.5	64.7	5	15	47	148	467	1,476
326	54744	DAY ST	70.0	62.7	68.8	72.9	31	97	308	975	3,083	9,749
327	56560	PIGEON PASS RD	57.0	47.8	46.5	57.8	1	3	10	30	95	301
328	56965	N WEBSTER AVE	72.1	63.4	66.6	73.6	36	115	362	1,145	3,622	11,454
329	56967	INDIAN ST	68.3	58.9	59.9	69.3	13	43	135	426	1,346	4,256
330	56969	N PERRIS BLVD	73.3	64.7	67.2	74.7	47	148	467	1,476	4,666	14,756
331	56974	GATEWAY DR	61.0	48.2	50.9	61.6	2	7	23	72	229	723
332	56976	RECHE CANYON RD	45.6	0.0	30.5	45.8	0	0	1	2	6	19

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

333	56977	INDIAN ST	64.9	55.5	55.2	65.8	6	19	60	190	601	1,901
334	56978	KRAMERIA AVE	47.5	39.1	39.4	48.6	0	0	1	4	11	36
335	56979	HEACOCK ST	71.5	62.1	64.1	72.6	29	91	288	910	2,877	9,099
336	56980	KRAMERIA AVE	43.1	35.1	30.2	43.9	0	0	0	1	4	12
337	56981	EVANS RD	71.7	62.2	65.4	73.0	32	100	315	998	3,155	9,976
338	57031	DAY ST	66.2	59.0	62.6	68.3	11	34	107	338	1,069	3,380
339	57032	OLD I-215 FRONTAGE RD	73.4	65.4	68.4	75.1	51	162	512	1,618	5,116	16,180
340	57033	HEACOCK ST	69.2	59.8	61.3	70.2	17	52	166	524	1,656	5,236
341	57034	INDIAN ST	63.3	52.5	55.5	64.2	4	13	42	132	416	1,315
342	57035	GENTIAN AVE	64.9	55.6	60.0	66.5	7	22	71	223	706	2,233
343	57036	PERRIS BLVD	73.1	63.1	65.1	74.1	41	129	406	1,285	4,064	12,852
344	57037	GENTIAN AVE	66.5	56.8	61.3	68.0	10	32	100	315	998	3,155
345	57038	GENTIAN AVE	66.3	55.5	50.6	66.7	7	23	74	234	740	2,339
346	57041	NASON ST	70.0	61.1	64.6	71.5	22	71	223	706	2,233	7,063
347	57042	IRIS AVE	72.3	65.2	69.0	74.5	45	141	446	1,409	4,456	14,092
348	57043	OLIVER ST	53.1	43.5	36.5	53.6	0	1	4	11	36	115
349	57044	SAN MICHELLE AV	49.0	47.2	45.0	52.1	0	1	3	8	26	81
350	57045	OLIVER ST	59.8	51.3	52.6	61.1	2	6	20	64	204	644
351	57046	CACTUS AVE	70.0	59.3	60.9	70.8	19	60	190	601	1,901	6,011
352	57047	ALESSANDRO BLVD	69.5	61.7	63.9	71.1	20	64	204	644	2,037	6,441
353	57048	OLIVER ST	53.1	41.9	35.9	53.5	0	1	4	11	35	112
354	57049	CACTUS AVE	69.9	60.9	60.5	70.9	19	62	195	615	1,945	6,151
355	57050	JOHN F KENNEDY DR	50.0	33.7	22.8	50.1	0	1	2	5	16	51
356	57051	ALESSANDRO BLVD	60.8	56.0	59.4	64.0	4	13	40	126	397	1,256
357	57052	CACTUS AVE	71.1	62.8	64.2	72.4	27	87	275	869	2,748	8,689
358	57053	QUINCY ST	57.4	46.6	35.0	57.8	1	3	10	30	95	301
359	57054	COTTONWOOD AVE	62.7	57.1	59.4	65.1	5	16	51	162	512	1,618
360	57055	QUINCY ST	62.4	49.7	44.7	62.7	3	9	29	93	294	931
361	57056	QUINCY ST	62.7	53.7	57.3	64.2	4	13	42	132	416	1,315
362	57057	REDLANDS BLVD	69.5	62.8	70.0	73.2	33	104	330	1,045	3,303	10,446
363	57059	EUCALYPTUS AVE	67.8	61.3	66.6	70.8	19	60	190	601	1,901	6,011
364	57060	PERRIS BLVD	72.8	63.5	66.0	74.0	40	126	397	1,256	3,972	12,559
365	57062	MORRISON ST				#VALUE!						
366	57063	ALESSANDRO BLVD	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
367	57064	ALESSANDRO BLVD	69.9	71.0	66.1	74.2	42	132	416	1,315	4,159	13,151
368	57065	REDLANDS BLVD	70.6	63.9	71.2	74.3	43	135	426	1,346	4,256	13,458
369	57066	CACTUS AVE	70.6	63.1	65.9	72.4	27	87	275	869	2,748	8,689
370	57067	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
371	57068	EUCALYPTUS AVE	70.6	70.3	75.5	77.6	91	288	910	2,877	9,099	28,772
372	57069	REDLANDS BLVD	69.5	62.8	70.0	73.2	33	104	330	1,045	3,303	10,446
373	57071	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
374	57072	GILMAN SPRINGS RD	76.5	66.9	71.4	78.0	100	315	998	3,155	9,976	31,548
375	57073	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
376	57074	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
377	57075	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
378	57076	GRAHAM ST	53.4	42.0	31.9	53.7	0	1	4	12	37	117
379	57077	IRONWOOD AVE	66.7	57.6	61.7	68.3	11	34	107	338	1,069	3,380
380	57078	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
381	57079	EUCALYPTUS AVE	66.4	66.1	71.3	73.4	35	109	346	1,094	3,459	10,939

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

382	57080	THEODORE AVE	63.9	61.5	67.5	69.7	15	47	148	467	1,476	4,666
383	57081	EUCALYPTUS AVE	66.4	66.1	71.3	73.4	35	109	346	1,094	3,459	10,939
384	57082	EUCALYPTUS AVE	70.6	70.3	75.5	77.6	91	288	910	2,877	9,099	28,772
385	57083	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
386	57084	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
387	57085	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
388	57086	REDLANDS BLVD	69.5	62.8	70.0	73.2	33	104	330	1,045	3,303	10,446
389	57087	ENCELIA AVE	61.0	60.3	66.0	68.0	10	32	100	315	998	3,155
390	57088	IRONWOOD AVE	62.6	54.8	57.8	64.4	4	14	44	138	435	1,377
391	57089	QUINCY ST	60.3	52.2	54.5	61.8	2	8	24	76	239	757
392	57091	GILMAN SPRINGS RD	77.0	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
393	57093	IRONWOOD AVE	68.2	58.4	62.1	69.5	14	45	141	446	1,409	4,456
394	57095	ELDER AVE	61.1	51.3	50.7	61.9	2	8	24	77	245	774
395	57096	ELDER AVE	61.7	51.6	47.9	62.3	3	8	27	85	269	849
396	57097	LOCUST AVE	65.7	58.0	59.3	67.1	8	26	81	256	811	2,564
397	57098	QUINCY ST	53.6	44.2	43.4	54.4	0	1	4	14	44	138
398	57100	IRONWOOD AVE	57.4	41.4	45.2	57.7	1	3	9	29	93	294
399	57101	ELDER AVE	61.1	51.3	50.7	61.9	2	8	24	77	245	774
400	57127	RECHE VISTA DR	71.4	62.6	64.6	72.7	29	93	294	931	2,944	9,310
401	57222	GILMAN SPRINGS RD	76.5	66.9	71.4	78.0	100	315	998	3,155	9,976	31,548
402	57223	EUCALYPTUS AVE	70.6	70.3	75.5	77.6	91	288	910	2,877	9,099	28,772
403	57282	PIGEON PASS RD	57.0	47.8	46.5	57.8	1	3	10	30	95	301
404	57495	KITCHING ST	67.2	59.2	62.6	69.0	13	40	126	397	1,256	3,972
405	57513	IRONWOOD AVE	68.2	58.4	64.5	70.1	16	51	162	512	1,618	5,116
406	57514	HEACOCK ST	73.5	64.1	67.9	74.9	49	155	489	1,545	4,886	15,451
407	58231	GILMAN SPRINGS RD	76.4	67.0	71.8	78.1	102	323	1,021	3,228	10,209	32,283
408	58345	GILMAN SPRINGS RD	77.1	67.1	71.5	78.4	109	346	1,094	3,459	10,939	34,592
409	58347	CACTUS AVE	70.6	63.1	65.8	72.4	27	87	275	869	2,748	8,689
410	58348	JOHN F KENNEDY DR	69.2	64.2	68.6	72.6	29	91	288	910	2,877	9,099
411	58350	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
412	58351	PIGEON PASS RD	59.8	50.0	49.3	60.6	2	6	18	57	182	574
413	58352	GATEWAY DR	61.0	48.2	50.9	61.6	2	7	23	72	229	723
414	58353	TOWN CIR	66.0	60.8	64.7	69.1	13	41	129	406	1,285	4,064
415	58354	VIA DEL LAGO	67.5	59.4	61.9	69.0	13	40	126	397	1,256	3,972
416	58395	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
417	58396	REDLANDS BLVD	72.8	66.6	69.4	75.1	51	162	512	1,618	5,116	16,180
418	58403	RECHE VISTA DR	71.4	62.6	64.6	72.7	29	93	294	931	2,944	9,310
419	58404	HIGHLAND BLVD	55.2	50.0	52.9	58.0	1	3	10	32	100	315
420	58405	IRONWOOD AVE	40.1	28.7	27.6	40.6	0	0	0	1	2	6
421	58406	THEODORE AVE	58.0	51.5	53.8	60.1	2	5	16	51	162	512
422	58407	QUINCY ST	57.1	50.9	47.3	58.4	1	3	11	35	109	346
423	58408	IRONWOOD AVE	53.2	44.6	56.3	58.2	1	3	10	33	104	330
424	58409	IRONWOOD AVE	62.6	54.8	57.8	64.4	4	14	44	138	435	1,377
425	58411	CACTUS AVE	70.0	60.4	60.7	70.9	19	62	195	615	1,945	6,151
426	58412	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
427	58413	CACTUS AVE	69.9	61.3	61.3	71.0	20	63	199	629	1,991	6,295
428	58414	OLIVER ST	54.0	43.3	35.9	54.4	0	1	4	14	44	138
429	58415	CACTUS AVE	71.1	63.5	63.0	72.3	27	85	269	849	2,685	8,491
430	58416	CACTUS AVE	71.1	62.6	63.8	72.3	27	85	269	849	2,685	8,491

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

431	58417	IRIS AVE	75.3	66.9	70.4	77.0	79	251	792	2,506	7,924	25,059
432	58419	ALTA CALLE	67.2	59.1	61.5	68.7	12	37	117	371	1,172	3,707
433	58420	IRIS AVE	72.3	65.2	69.0	74.5	45	141	446	1,409	4,456	14,092
434	58421	NASON ST	70.0	61.1	64.6	71.5	22	71	223	706	2,233	7,063
435	58422	LAKE PERRIS DR	64.9	57.4	61.2	67.0	8	25	79	251	792	2,506
436	58423	ALTA CALLE	65.7	57.4	60.8	67.4	9	27	87	275	869	2,748
437	58451	EUCALYPTUS AVE	66.0	59.8	66.2	69.6	14	46	144	456	1,442	4,560
438	58452	QUINCY ST	62.2	56.4	59.2	64.7	5	15	47	148	467	1,476
439	58453	EUCALYPTUS AVE	67.8	61.3	66.6	70.8	19	60	190	601	1,901	6,011
440	58454	MORENO BEACH DR	68.5	62.8	67.4	71.6	23	72	229	723	2,285	7,227
441	58455	NASON ST	68.9	60.0	64.5	70.6	18	57	182	574	1,815	5,741
442	58456	COTTONWOOD AVE	58.6	49.2	48.8	59.4	1	4	14	44	138	435
443	58457	IRONWOOD AVE	67.2	58.1	62.8	68.9	12	39	123	388	1,227	3,881
444	58458	NASON ST	61.4	51.0	47.0	61.9	2	8	24	77	245	774
445	58459	MORENO BEACH DR	70.0	61.7	65.6	71.8	24	76	239	757	2,393	7,568
446	58460	NASON ST	70.2	61.5	65.8	71.9	24	77	245	774	2,449	7,744
447	58461	ALESSANDRO BLVD	69.5	61.7	63.9	71.1	20	64	204	644	2,037	6,441
448	58976	IRONWOOD AVE	66.7	57.6	61.7	68.3	11	34	107	338	1,069	3,380
449	58977	IRONWOOD AVE	66.2	57.1	62.0	68.0	10	32	100	315	998	3,155
450	58978	ALESSANDRO BLVD	69.9	71.0	66.1	74.2	42	132	416	1,315	4,159	13,151
451	58979	PERRIS BLVD	72.0	62.1	64.1	73.0	32	100	315	998	3,155	9,976
452	58980	PERRIS BLVD	71.7	61.7	63.9	72.7	29	93	294	931	2,944	9,310
453	58990	PERRIS BLVD	72.0	62.0	64.0	73.0	32	100	315	998	3,155	9,976
454	58991	INDIAN AVE	58.2	47.9	47.8	59.0	1	4	13	40	126	397
455	58992	HEACOCK ST	64.2	55.4	55.3	65.2	5	17	52	166	524	1,656
456	58994	SUNNYMEAD RANCH PKY	65.5	53.5	51.3	65.9	6	19	62	195	615	1,945
457	58995	PERRIS BLVD	70.2	61.5	64.1	71.6	23	72	229	723	2,285	7,227
458	58996	ELDER AVE	60.1	50.7	47.3	60.8	2	6	19	60	190	601
459	58997	MORENO BEACH DR	68.2	59.4	60.1	69.3	13	43	135	426	1,346	4,256
460	58998	MANZANITA AVE	58.8	45.7	37.3	59.0	1	4	13	40	126	397
461	59014	PIGEON PASS RD	63.0	53.4	55.6	64.1	4	13	41	129	406	1,285
462	59015	HEACOCK ST	69.7	58.9	58.6	70.3	17	54	169	536	1,694	5,358
463	59016	IRONWOOD AVE	65.1	54.9	60.5	66.7	7	23	74	234	740	2,339
464	59017	HEACOCK ST	69.7	58.8	58.6	70.4	17	55	173	548	1,734	5,482
465	59018	PIGEON PASS RD	70.2	59.0	57.8	70.7	19	59	186	587	1,858	5,874
466	59019	ELDER AVE	61.1	51.3	50.7	61.9	2	8	24	77	245	774
467	59022	GRAEBER ST	63.1	55.1	59.7	65.2	5	17	52	166	524	1,656
468	59058	PIGEON PASS RD	59.8	50.0	49.3	60.6	2	6	18	57	182	574
469	59059	HIDDEN SPRINGS DR	50.6	38.9	29.4	50.9	0	1	2	6	19	62
470	59060	BOX SPRINGS RD	69.3	59.0	65.2	71.0	20	63	199	629	1,991	6,295
471	59062	SUNNYMEAD RANCH PKY	63.2	53.2	51.1	63.8	4	12	38	120	379	1,199
472	59064	OLD LAKE DR	66.3	55.6	53.5	66.9	8	24	77	245	774	2,449
473	59066	SUNNYMEAD RANCH PKY	68.1	57.2	55.5	68.7	12	37	117	371	1,172	3,707
474	59069	IRONWOOD AVE	67.2	57.4	63.5	69.0	13	40	126	397	1,256	3,972
475	59073	COTTONWOOD AVE	60.5	55.8	59.0	63.6	4	11	36	115	362	1,145
476	59101	PIGEON PASS RD	71.1	59.8	58.6	71.7	23	74	234	740	2,339	7,396
477	59102	BOX SPRINGS RD	70.2	60.7	65.7	71.8	24	76	239	757	2,393	7,568
478	59432	LASSELLE ST	72.8	63.1	65.8	73.9	39	123	388	1,227	3,881	12,274
479	59433	KITCHING ST	65.6	55.8	57.3	66.6	7	23	72	229	723	2,285

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

480	59437	LASSELLE ST	71.4	60.9	59.4	72.0	25	79	251	792	2,506	7,924
481	59438	KITCHING ST	66.7	55.9	53.7	67.2	8	26	83	262	830	2,624
482	59439	GENTIAN AVE	65.9	54.7	47.8	66.3	7	21	67	213	674	2,133
483	59440	N PERRIS BLVD	74.6	66.0	68.7	76.1	64	204	644	2,037	6,441	20,369
484	59442	N WEBSTER AVE	72.1	63.4	66.6	73.6	36	115	362	1,145	3,622	11,454
485	59444	N WEBSTER AVE	72.1	63.4	66.6	73.6	36	115	362	1,145	3,622	11,454
486	59446	NANDINA AVE	56.2	47.1	49.5	57.4	1	3	9	27	87	275
487	59447	NANDINA AVE	47.9	44.2	45.1	50.8	0	1	2	6	19	60
488	59448	INDIAN ST	67.8	59.4	63.3	69.6	14	46	144	456	1,442	4,560
489	59449	KRAMERIA AVE	63.2	56.5	57.9	65.0	5	16	50	158	500	1,581
490	59450	KRAMERIA AVE	61.5	55.0	62.0	65.2	5	17	52	166	524	1,656
491	59451	INDIAN ST	65.0	55.6	55.2	65.8	6	19	60	190	601	1,901
492	59452	GENTIAN AVE	67.0	57.2	58.2	67.9	10	31	97	308	975	3,083
493	59453	INDIAN ST	60.5	49.6	50.8	61.2	2	7	21	66	208	659
494	59454	PERRIS BLVD	73.3	63.1	64.7	74.2	42	132	416	1,315	4,159	13,151
495	59455	HEACOCK ST	68.7	60.5	63.2	70.3	17	54	169	536	1,694	5,358
496	59458	HEACOCK ST	71.1	60.9	61.9	71.9	24	77	245	774	2,449	7,744
497	59467	INDIAN ST	66.1	54.6	52.7	66.6	7	23	72	229	723	2,285
498	59468	HEACOCK ST	72.1	63.6	67.8	73.9	39	123	388	1,227	3,881	12,274
499	59469	CACTUS AVE	70.5	60.9	61.2	71.4	22	69	218	690	2,183	6,902
500	59470	INDIAN ST	64.0	53.1	55.5	64.9	5	15	49	155	489	1,545
501	59471	GENTIAN AVE	63.9	54.9	60.7	66.0	6	20	63	199	629	1,991
502	59473	GRAHAM ST	64.2	53.4	49.5	64.7	5	15	47	148	467	1,476
503	59474	HEACOCK ST	66.9	57.6	62.0	68.5	11	35	112	354	1,119	3,540
504	59475	INDIAN ST	63.5	54.8	54.9	64.6	5	14	46	144	456	1,442
505	59476	HEACOCK ST	68.6	58.7	59.9	69.5	14	45	141	446	1,409	4,456
506	59477	GRAHAM ST	66.7	59.2	62.9	68.7	12	37	117	371	1,172	3,707
507	59478	CACTUS AVE	76.5	67.5	71.0	78.0	100	315	998	3,155	9,976	31,548
508	59479	COTTONWOOD AVE	68.4	56.4	56.1	68.9	12	39	123	388	1,227	3,881
509	59480	GRAHAM ST	61.4	51.2	50.2	62.1	3	8	26	81	256	811
510	59481	HEACOCK ST	66.1	57.1	58.6	67.3	8	27	85	269	849	2,685
511	59482	HEMLOCK AVE	56.8	48.7	47.6	57.8	1	3	10	30	95	301
512	59483	SUNNYMEAD BLVD	67.0	58.5	62.8	68.8	12	38	120	379	1,199	3,793
513	59484	HEACOCK ST	66.7	57.7	60.4	68.0	10	32	100	315	998	3,155
514	59486	GRAHAM ST	65.8	55.5	55.3	66.5	7	22	71	223	706	2,233
515	59487	EUCALYPTUS AVE	68.1	60.4	65.1	70.3	17	54	169	536	1,694	5,358
516	59488	INDIAN ST	63.9	55.3	55.5	65.0	5	16	50	158	500	1,581
517	59490	EUCALYPTUS AVE	66.5	59.1	64.9	69.2	13	42	132	416	1,315	4,159
518	59491	CANYON SPRINGS PKY	58.2	45.5	50.6	59.1	1	4	13	41	129	406
519	59493	EUCALYPTUS AVE	67.0	59.6	64.9	69.5	14	45	141	446	1,409	4,456
520	59494	COTTONWOOD AVE	66.4	54.6	53.4	66.9	8	24	77	245	774	2,449
521	59495	INDIAN ST	59.4	48.8	47.7	60.1	2	5	16	51	162	512
522	59543	FREDERICK ST	63.4	56.0	59.8	65.5	6	18	56	177	561	1,774
523	59544	CACTUS AVE	76.5	67.7	71.4	78.1	102	323	1,021	3,228	10,209	32,283
524	59545	ELSWORTH ST	67.5	59.6	66.9	70.6	18	57	182	574	1,815	5,741
525	59546	CACTUS AVE	76.9	68.6	73.0	78.8	120	379	1,199	3,793	11,994	37,929
526	59547	ELSWORTH ST	63.5	54.0	55.2	64.5	4	14	45	141	446	1,409
527	59548	ALESSANDRO BLVD	75.0	66.5	71.7	77.0	79	251	792	2,506	7,924	25,059
528	59549	E ALESSANDRO BLVD	75.4	67.3	72.2	77.5	89	281	889	2,812	8,891	28,117

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

529	59550	OLD I-215 FRONTAGE RD	71.2	62.8	66.3	72.9	31	97	308	975	3,083	9,749
530	59552	TOWN CIR	66.0	60.8	64.7	69.1	13	41	129	406	1,285	4,064
531	59553	TOWN CIR	52.7	0.0	0.0	52.7	0	1	3	9	29	93
532	59554	COTTONWOOD AVE	65.6	55.5	55.7	66.4	7	22	69	218	690	2,183
533	59556	DAY ST	64.3	58.7	65.8	68.6	11	36	115	362	1,145	3,622
534	59558	MEMORIAL WAY	63.6	51.8	49.2	64.0	4	13	40	126	397	1,256
535	59559	CORPORATE CENTRE PL	44.4	36.4	43.0	47.1	0	0	1	3	8	26
536	59560	TOWN CIR	64.5	55.2	56.1	65.5	6	18	56	177	561	1,774
537	59561	TOWN CIR	52.7	0.0	0.0	52.7	0	1	3	9	29	93
538	59562	FREDERICK ST	66.9	55.9	59.7	67.9	10	31	97	308	975	3,083
539	59563	ELSWORTH ST	63.6	54.5	56.7	64.8	5	15	48	151	477	1,510
540	59564	ALESSANDRO BLVD	71.8	62.9	67.3	73.5	35	112	354	1,119	3,540	11,194
541	59565	EUCALYPTUS AVE	69.2	61.6	65.6	71.3	21	67	213	674	2,133	6,745
542	59567	ELSWORTH ST	64.4	55.9	56.2	65.5	6	18	56	177	561	1,774
543	59568	COTTONWOOD AVE	62.8	52.0	53.4	63.6	4	11	36	115	362	1,145
544	59569	COTTONWOOD AVE	69.0	57.2	58.0	69.6	14	46	144	456	1,442	4,560
545	59570	DAY ST	70.1	62.7	68.9	73.0	32	100	315	998	3,155	9,976
546	59572	CORPORATE CENTRE PL	44.4	36.4	43.0	47.1	0	0	1	3	8	26
547	59574	DAY ST	66.0	55.1	57.2	66.8	8	24	76	239	757	2,393
548	59575	CACTUS AVE	69.1	58.4	58.6	69.8	15	48	151	477	1,510	4,775
549	59576	CACTUS AVE	69.1	58.1	58.4	69.8	15	48	151	477	1,510	4,775
550	59577	COTTONWOOD AVE	63.6	54.7	53.4	64.5	4	14	45	141	446	1,409
551	59578	MORRISON ST	59.7	49.1	42.4	60.1	2	5	16	51	162	512
552	59579	ALESSANDRO BLVD	73.0	63.9	65.9	74.2	42	132	416	1,315	4,159	13,151
553	59580	LASSELLE ST	68.2	59.3	60.3	69.3	13	43	135	426	1,346	4,256
554	59581	KITCHING ST	64.5	53.0	51.9	65.0	5	16	50	158	500	1,581
555	59582	ALESSANDRO BLVD	71.4	63.7	66.5	73.1	32	102	323	1,021	3,228	10,209
556	59583	EUCALYPTUS AVE	69.7	61.5	66.4	71.8	24	76	239	757	2,393	7,568
557	59585	DRACAEA AVE	61.9	52.2	51.8	62.7	3	9	29	93	294	931
558	59587	LASSELLE ST	68.4	56.3	52.6	68.7	12	37	117	371	1,172	3,707
559	59589	CACTUS AVE	70.4	62.9	62.8	71.7	23	74	234	740	2,339	7,396
560	59590	HEACOCK ST	72.2	63.2	66.8	73.7	37	117	371	1,172	3,707	11,721
561	59591	ELDER AVE	61.1	51.3	50.7	61.9	2	8	24	77	245	774
562	59592	SUNNYMEAD BLVD	69.3	59.3	61.1	70.3	17	54	169	536	1,694	5,358
563	59593	LASSELLE ST	58.3	47.7	39.8	58.7	1	4	12	37	117	371
564	59594	EUCALYPTUS AVE	67.9	59.8	65.0	70.1	16	51	162	512	1,618	5,116
565	59595	EUCALYPTUS AVE	67.9	60.1	65.1	70.2	17	52	166	524	1,656	5,236
566	59596	SUNNYMEAD BLVD	70.3	60.9	63.5	71.5	22	71	223	706	2,233	7,063
567	59597	EUCALYPTUS AVE	67.4	59.5	65.0	69.8	15	48	151	477	1,510	4,775
568	59598	COTTONWOOD AVE	62.1	49.8	49.2	62.6	3	9	29	91	288	910
569	59599	MORRISON ST	61.7	52.1	48.4	62.3	3	8	27	85	269	849
570	59600	KITCHING ST	60.8	50.5	47.1	61.3	2	7	21	67	213	674
571	59601	PERRIS BLVD	72.4	62.7	65.4	73.6	36	115	362	1,145	3,622	11,454
572	59602	CACTUS AVE	70.5	62.2	61.7	71.5	22	71	223	706	2,233	7,063
573	59603	CACTUS AVE	70.5	60.4	59.4	71.2	21	66	208	659	2,084	6,591
574	59605	PERRIS BLVD	74.0	63.6	65.5	74.9	49	155	489	1,545	4,886	15,451
575	59606	GENTIAN AVE	64.3	53.3	46.6	64.7	5	15	47	148	467	1,476
576	59607	COTTONWOOD AVE	66.0	54.3	53.4	66.5	7	22	71	223	706	2,233
577	59608	PERRIS BLVD	72.1	62.6	65.4	73.3	34	107	338	1,069	3,380	10,690

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

578	59609	IRONWOOD AVE	65.0	54.8	60.5	66.6	7	23	72	229	723	2,285
579	59610	INDIAN ST	60.0	49.3	47.4	60.5	2	6	18	56	177	561
580	59611	PERRIS BLVD	71.0	61.6	63.2	72.1	26	81	256	811	2,564	8,109
581	59612	DRACAEA AVE	58.4	47.8	46.6	59.0	1	4	13	40	126	397
582	59613	HEACOCK ST	71.3	62.2	64.7	72.6	29	91	288	910	2,877	9,099
583	59614	COTTONWOOD AVE	67.1	56.4	55.9	67.7	9	29	93	294	931	2,944
584	59615	LOCUST AVE	65.5	57.9	59.2	67.0	8	25	79	251	792	2,506
585	59616	PERRIS BLVD	72.0	62.6	65.6	73.3	34	107	338	1,069	3,380	10,690
586	59618	SUNNYMEAD BLVD	65.4	56.7	59.9	66.9	8	24	77	245	774	2,449
587	59620	PERRIS BLVD	72.1	62.7	65.8	73.4	35	109	346	1,094	3,459	10,939
588	59621	EUCALYPTUS AVE	67.8	59.6	65.0	70.0	16	50	158	500	1,581	5,000
589	59622	INDIAN ST	59.7	49.7	48.5	60.4	2	5	17	55	173	548
590	59623	DRACAEA AVE	60.7	50.4	50.6	61.5	2	7	22	71	223	706
591	59624	ALESSANDRO BLVD	71.8	63.4	66.0	73.3	34	107	338	1,069	3,380	10,690
592	59628	RECHE VISTA DR	71.4	62.6	64.6	72.7	29	93	294	931	2,944	9,310
593	59630	LAKE VISTA RD	55.5	48.3	43.9	56.5	1	2	7	22	71	223
594	59631	HIDDEN SPRINGS DR	63.8	53.5	49.1	64.3	4	13	43	135	426	1,346
595	60043	GILMAN SPRINGS RD	77.0	67.3	72.1	78.6	115	362	1,145	3,622	11,454	36,222
596	60044	GILMAN SPRINGS RD	77.0	67.4	71.8	78.5	112	354	1,119	3,540	11,194	35,397
597	60046	GILMAN SPRINGS RD	77.0	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
598	60047	JACK RABBIT TRL	68.3	59.7	64.1	70.1	16	51	162	512	1,618	5,116
599	60115	MORENO BEACH DR	71.1	62.1	64.5	72.4	27	87	275	869	2,748	8,689
600	60131	PERRIS BLVD	65.5	56.2	55.8	66.4	7	22	69	218	690	2,183
601	60132	CANYON SPRINGS PKY	55.0	45.9	47.7	56.2	1	2	7	21	66	208
602	60133	ALESSANDRO BLVD	66.6	55.1	55.3	67.2	8	26	83	262	830	2,624
603	60134	CORPORATE CENTRE PL	44.4	36.4	43.0	47.1	0	0	1	3	8	26
604	60136	CACTUS AVE	70.0	60.4	60.7	70.9	19	62	195	615	1,945	6,151
605	60142	EUCALYPTUS AVE	65.7	59.8	65.3	69.1	13	41	129	406	1,285	4,064
606	60143	EUCALYPTUS AVE	64.7	59.1	64.9	68.4	11	35	109	346	1,094	3,459
607	60146	QUINCY ST	61.6	49.6	48.0	62.0	3	8	25	79	251	792
608	60147	RECHE VISTA DR	71.4	62.6	64.6	72.7	29	93	294	931	2,944	9,310
609	60148	EUCALYPTUS AVE	70.6	70.3	75.5	77.6	91	288	910	2,877	9,099	28,772
610	60149	GILMAN SPRINGS RD	76.5	66.9	71.4	78.0	100	315	998	3,155	9,976	31,548
611	60150	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
612	60151	ALESSANDRO BLVD	63.1	56.4	59.4	65.3	5	17	54	169	536	1,694
613	60152	ALESSANDRO BLVD	60.8	56.0	59.4	64.0	4	13	40	126	397	1,256
614	60155	GILMAN SPRINGS RD	77.0	67.4	71.8	78.5	112	354	1,119	3,540	11,194	35,397
615	60173	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
616	60491	IRONWOOD AVE	68.1	57.5	64.2	69.8	15	48	151	477	1,510	4,775
617	61193	GRAEBER ST	62.5	55.1	59.7	64.9	5	15	49	155	489	1,545
618	61273	JOHN F KENNEDY DR	70.8	64.7	68.3	73.4	35	109	346	1,094	3,459	10,939
619	61547	PIGEON PASS RD	57.0	47.8	46.5	57.8	1	3	10	30	95	301
620	61550	PIGEON PASS RD	57.0	47.8	46.5	57.8	1	3	10	30	95	301

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : GPU Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Soft  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1		I-215	113,975	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
2		I-215	136,373	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
3		I-215	127,412	65	50	90.50	4.61	4.89	78.00	4.00	18.00	
4		I-215	133,498	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
5		I-215	128,729	65	50	90.50	4.61	4.89	78.00	4.00	18.00	
6		I-215	163,364	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
7		I-215	149,332	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
8		I-215	168,415	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
9		I-215	168,415	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
10		I-215	162,502	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
11		I-215	177,608	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
12		I-215	177,608	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
13		I-215	156,842	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
14		I-215	158,212	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
15		I-215	168,848	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
16		I-215	168,848	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
17		I-215	149,614	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
18		I-215	157,175	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
19		I-215	156,570	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
20		I-215	146,855	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
21		I-215	146,508	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
22		I-215	150,782	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
23		I-215	133,683	65	50	89.00	5.34	5.67	78.00	4.00	18.00	
24		I-215	142,657	65	50	87.50	6.06	6.44	78.00	4.00	18.00	
25		I-215	123,644	65	50	88.00	5.82	6.18	78.00	4.00	18.00	
26		I-215	123,034	65	50	88.00	5.82	6.18	78.00	4.00	18.00	
27		I-215	205,453	65	50	85.00	7.28	7.73	78.00	4.00	18.00	
28		I-215	229,056	65	50	85.00	7.28	7.73	78.00	4.00	18.00	
29		I-215	244,675	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
30		I-215	218,633	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
31		I-215	216,818	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
32		I-215	217,731	65	50	84.50	7.52	7.98	78.00	4.00	18.00	
33		I-215	212,216	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
34		I-215	215,911	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
35		I-215	197,855	65	50	83.50	8.00	8.50	78.00	4.00	18.00	
36		I-215	188,416	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
37		I-215	183,546	65	50	82.50	8.49	9.01	78.00	4.00	18.00	
38		I-215	190,385	65	50	83.00	8.25	8.76	78.00	4.00	18.00	
39		I-215	176,661	65	50	82.50	8.49	9.01	78.00	4.00	18.00	
40		I-215	191,111	65	50	83.00	8.25	8.76	78.00	4.00	18.00	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	96,777	65	50	82.00	8.73	9.27	78.00	4.00	18.00
2	SR-60	88,996	65	50	80.50	9.46	10.04	78.00	4.00	18.00
3	SR-60	93,416	65	50	81.50	8.97	9.53	78.00	4.00	18.00
4	SR-60	97,732	65	50	82.50	8.49	9.01	78.00	4.00	18.00
5	SR-60	94,717	65	50	81.50	8.97	9.53	78.00	4.00	18.00
6	SR-60	94,717	65	50	81.50	8.97	9.53	78.00	4.00	18.00
7	SR-60	106,933	65	50	83.00	8.25	8.76	78.00	4.00	18.00
8	SR-60	106,933	65	50	83.00	8.25	8.76	78.00	4.00	18.00
9	SR-60	104,033	65	50	83.00	8.25	8.76	78.00	4.00	18.00
10	SR-60	101,391	65	50	83.00	8.25	8.76	78.00	4.00	18.00
11	SR-60	101,612	65	50	83.00	8.25	8.76	78.00	4.00	18.00
12	SR-60	101,818	65	50	83.00	8.25	8.76	78.00	4.00	18.00
13	SR-60	99,863	65	50	82.50	8.49	9.01	78.00	4.00	18.00
14	SR-60	99,093	65	50	82.50	8.49	9.01	78.00	4.00	18.00
15	SR-60	118,903	65	50	76.50	11.40	12.10	78.00	4.00	18.00
16	SR-60	113,931	65	50	76.00	11.64	12.36	78.00	4.00	18.00
17	SR-60	125,918	65	50	74.50	12.37	13.13	78.00	4.00	18.00
18	SR-60	125,918	65	50	74.50	12.37	13.13	78.00	4.00	18.00
19	SR-60	120,302	65	50	74.00	12.61	13.39	78.00	4.00	18.00
20	SR-60	129,900	65	50	76.50	11.40	12.10	78.00	4.00	18.00
21	SR-60	119,322	65	50	75.00	12.13	12.88	78.00	4.00	18.00
22	SR-60	143,503	65	50	79.50	9.94	10.56	78.00	4.00	18.00
23	SR-60	134,118	65	50	77.50	10.91	11.59	78.00	4.00	18.00
24	SR-60	132,192	65	50	78.00	10.67	11.33	78.00	4.00	18.00
25	SR-60	138,895	65	50	77.00	11.16	11.85	78.00	4.00	18.00
26	SR-60	139,088	65	50	77.00	11.16	11.85	78.00	4.00	18.00
27	SR-60	151,964	65	50	79.50	9.94	10.56	78.00	4.00	18.00
28	SR-60	143,430	65	50	80.00	9.70	10.30	78.00	4.00	18.00
29	SR-60	153,706	65	50	81.50	8.97	9.53	78.00	4.00	18.00
30	SR-60	153,706	65	50	81.50	8.97	9.53	78.00	4.00	18.00
31	SR-60	153,706	65	50	81.50	8.97	9.53	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040  
**Assessment Metric:** Soft

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Soft				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1		I-215	82.8	76.2	80.0	85.2	239	516	1,111	2,393	5,156	11,108
2		I-215	83.6	76.6	80.3	85.8	262	565	1,218	2,624	5,653	12,180
3		I-215	83.3	76.5	80.2	85.6	254	548	1,181	2,545	5,482	11,811
4		I-215	83.5	76.5	80.2	85.7	258	557	1,199	2,584	5,567	11,994
5		I-215	83.3	76.5	80.3	85.7	258	557	1,199	2,584	5,567	11,994
6		I-215	84.4	77.3	81.1	86.6	297	639	1,377	2,967	6,392	13,771
7		I-215	84.0	77.0	80.7	86.2	279	601	1,295	2,790	6,011	12,951
8		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
9		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
10		I-215	84.4	77.3	81.1	86.6	297	639	1,377	2,967	6,392	13,771
11		I-215	84.8	77.7	81.4	87.0	315	680	1,464	3,155	6,797	14,643
12		I-215	84.8	77.7	81.4	87.0	315	680	1,464	3,155	6,797	14,643
13		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
14		I-215	84.2	77.7	81.4	86.6	297	639	1,377	2,967	6,392	13,771
15		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
16		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
17		I-215	84.0	77.4	81.2	86.4	288	620	1,335	2,877	6,199	13,355
18		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
19		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
20		I-215	83.9	77.6	81.3	86.4	288	620	1,335	2,877	6,199	13,355
21		I-215	83.8	77.5	81.3	86.4	288	620	1,335	2,877	6,199	13,355
22		I-215	84.0	77.7	81.4	86.5	292	629	1,356	2,922	6,295	13,561
23		I-215	83.4	77.3	81.1	86.0	271	583	1,256	2,706	5,830	12,559
24		I-215	83.6	78.2	81.9	86.6	297	639	1,377	2,967	6,392	13,771
25		I-215	83.0	77.4	81.1	85.9	266	574	1,237	2,665	5,741	12,368
26		I-215	83.0	77.4	81.1	85.8	262	565	1,218	2,624	5,653	12,180
27		I-215	85.1	80.6	84.3	88.5	397	856	1,843	3,972	8,557	18,435
28		I-215	85.6	81.0	84.8	89.0	429	924	1,991	4,288	9,239	19,905
29		I-215	85.8	81.6	85.3	89.4	456	982	2,117	4,560	9,824	21,166
30		I-215	85.3	81.1	84.8	88.9	422	910	1,960	4,223	9,099	19,602
31		I-215	85.3	81.1	84.8	88.9	422	910	1,960	4,223	9,099	19,602
32		I-215	85.3	81.0	84.7	88.8	416	896	1,930	4,159	8,960	19,304
33		I-215	85.2	81.0	84.7	88.8	416	896	1,930	4,159	8,960	19,304
34		I-215	85.3	81.1	84.8	88.8	416	896	1,930	4,159	8,960	19,304
35		I-215	84.9	80.8	84.5	88.5	397	856	1,843	3,972	8,557	18,435
36		I-215	84.7	80.5	84.2	88.2	379	817	1,761	3,793	8,172	17,605
37		I-215	84.5	80.7	84.5	88.3	385	830	1,788	3,852	8,298	17,877
38		I-215	84.7	80.8	84.5	88.4	391	843	1,815	3,911	8,426	18,154
39		I-215	84.3	80.6	84.3	88.2	379	817	1,761	3,793	8,172	17,605
40		I-215	84.7	80.8	84.5	88.4	391	843	1,815	3,911	8,426	18,154

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** GPU Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	81.7	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
2	SR-60	81.2	78.1	81.8	85.4	247	532	1,145	2,468	5,317	11,454
3	SR-60	81.5	78.0	81.8	85.5	251	540	1,163	2,506	5,399	11,632
4	SR-60	81.7	78.0	81.7	85.6	254	548	1,181	2,545	5,482	11,811
5	SR-60	81.5	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
6	SR-60	81.5	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
7	SR-60	82.2	78.3	82.0	85.9	266	574	1,237	2,665	5,741	12,368
8	SR-60	82.2	78.3	82.0	85.9	266	574	1,237	2,665	5,741	12,368
9	SR-60	82.0	78.1	81.9	85.8	262	565	1,218	2,624	5,653	12,180
10	SR-60	81.9	78.0	81.8	85.7	258	557	1,199	2,584	5,567	11,994
11	SR-60	81.9	78.0	81.8	85.7	258	557	1,199	2,584	5,567	11,994
12	SR-60	81.9	78.1	81.8	85.7	258	557	1,199	2,584	5,567	11,994
13	SR-60	81.8	78.1	81.8	85.7	258	557	1,199	2,584	5,567	11,994
14	SR-60	81.8	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
15	SR-60	82.3	80.1	83.9	87.1	320	690	1,487	3,204	6,902	14,870
16	SR-60	82.0	80.0	83.8	87.0	315	680	1,464	3,155	6,797	14,643
17	SR-60	82.4	80.7	84.5	87.6	346	745	1,606	3,459	7,453	16,056
18	SR-60	82.4	80.7	84.5	87.6	346	745	1,606	3,459	7,453	16,056
19	SR-60	82.2	80.6	84.4	87.4	335	723	1,557	3,355	7,227	15,571
20	SR-60	82.6	80.5	84.3	87.5	341	734	1,581	3,406	7,339	15,811
21	SR-60	82.2	80.4	84.2	87.3	330	712	1,533	3,303	7,117	15,333
22	SR-60	83.2	80.4	84.1	87.6	346	745	1,606	3,459	7,453	16,056
23	SR-60	82.8	80.5	84.2	87.5	341	734	1,581	3,406	7,339	15,811
24	SR-60	82.8	80.3	84.0	87.4	335	723	1,557	3,355	7,227	15,571
25	SR-60	83.0	80.7	84.5	87.7	351	757	1,630	3,513	7,568	16,304
26	SR-60	83.0	80.7	84.5	87.7	351	757	1,630	3,513	7,568	16,304
27	SR-60	83.5	80.6	84.3	87.9	362	780	1,681	3,622	7,804	16,813
28	SR-60	83.3	80.2	84.0	87.5	341	734	1,581	3,406	7,339	15,811
29	SR-60	83.7	80.2	83.9	87.7	351	757	1,630	3,513	7,568	16,304
30	SR-60	83.7	80.2	83.9	87.7	351	757	1,630	3,513	7,568	16,304
31	SR-60	83.7	80.2	83.9	87.7	351	757	1,630	3,513	7,568	16,304

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	3490	CACTUS AVE	59,200	50	50	94.20	2.88	2.92	78.00	4.00	18.00	
2	7726	DAY ST	19,268	40	50	95.29	2.11	2.60	78.00	4.00	18.00	
3	7889	ENCELIA AVE	5,140	35	50	86.84	6.22	6.94	78.00	4.00	18.00	
4	9102	PIGEON PASS RD	29,889	40	50	97.43	1.64	0.93	78.00	4.00	18.00	
5	11519	CACTUS AVE	59,200	50	50	95.45	2.37	2.18	78.00	4.00	18.00	
6	11520	CACTUS AVE	59,200	50	50	94.83	2.51	2.66	78.00	4.00	18.00	
7	11522	PIGEON PASS RD	30,182	40	50	97.40	1.64	0.96	78.00	4.00	18.00	
8	11523	FREDERICK ST	31,577	40	50	97.16	1.71	1.13	78.00	4.00	18.00	
9	11524	SUNNYMEAD BLVD	16,474	35	50	97.03	1.53	1.44	78.00	4.00	18.00	
10	11525	FREDERICK ST	36,693	40	50	96.99	1.72	1.29	78.00	4.00	18.00	
11	11526	HEMLOCK AVE	5,605	35	50	97.74	1.75	0.51	78.00	4.00	18.00	
12	11529	E ALESSANDRO BLVD	57,666	45	50	95.65	2.13	2.22	78.00	4.00	18.00	
13	11530	E ALESSANDRO BLVD	57,486	45	50	95.65	2.13	2.22	78.00	4.00	18.00	
14	11532	DAY ST	25,309	40	50	94.19	2.46	3.35	78.00	4.00	18.00	
15	11533	DAY ST	23,958	40	50	94.32	2.64	3.04	78.00	4.00	18.00	
16	11534	DAY ST	19,268	40	50	95.29	2.11	2.60	78.00	4.00	18.00	
17	11535	DAY ST	12,912	40	50	97.61	1.57	0.82	78.00	4.00	18.00	
18	11543	NASON ST	16,928	40	50	96.52	1.60	1.88	78.00	4.00	18.00	
19	11544	NASON ST	4,202	40	50	98.57	1.09	0.34	78.00	4.00	18.00	
20	11545	NASON ST	15,031	40	50	96.33	1.61	2.06	78.00	4.00	18.00	
21	11547	SUNNYMEAD BLVD	21,947	40	50	97.69	1.39	0.92	78.00	4.00	18.00	
22	11548	SUNNYMEAD BLVD	18,096	40	50	98.12	1.21	0.67	78.00	4.00	18.00	
23	11550	SUNNYMEAD BLVD	25,683	35	50	97.26	1.49	1.25	78.00	4.00	18.00	
24	11551	SUNNYMEAD BLVD	10,779	35	50	97.70	1.29	1.01	78.00	4.00	18.00	
25	11594	THEODORE AVE	19,600	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
26	11595	THEODORE AVE	1,717	50	50	96.02	2.29	1.69	78.00	4.00	18.00	
27	11598	THEODORE AVE	37,000	50	50	80.00	8.00	12.00	78.00	4.00	18.00	
28	11618	MORENO BEACH DR	23,939	45	50	92.90	2.83	4.27	78.00	4.00	18.00	
29	11619	MORENO BEACH DR	11,456	45	50	96.31	2.19	1.50	78.00	4.00	18.00	
30	11620	MORENO BEACH DR	10,062	45	50	92.76	3.13	4.11	78.00	4.00	18.00	
31	11628	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00	
32	11629	REDLANDS BLVD	16,132	50	50	91.70	4.58	3.72	78.00	4.00	18.00	
33	11630	REDLANDS BLVD	11,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00	
34	27569	ALESSANDRO BLVD	495	40	50	99.44	0.45	0.11	78.00	4.00	18.00	
35	27588	IRONWOOD AVE	527	55	50	98.94	0.52	0.54	78.00	4.00	18.00	
36	27732	MORENO BEACH DR	9,719	50	50	96.78	1.75	1.47	78.00	4.00	18.00	
37	27733	MORENO BEACH DR	14,449	50	50	97.36	1.56	1.08	78.00	4.00	18.00	
38	27734	CACTUS AVE	14,300	50	50	97.21	1.93	0.86	78.00	4.00	18.00	
39	27735	MORENO BEACH DR	25,223	50	50	94.36	2.96	2.68	78.00	4.00	18.00	
40	27736	JOHN F KENNEDY DR	19,472	45	50	93.90	3.19	2.91	78.00	4.00	18.00	
41	27783	MORENO BEACH DR	12,863	50	50	95.84	2.32	1.84	78.00	4.00	18.00	
42	27784	ALESSANDRO BLVD	4,216	40	50	96.49	2.09	1.42	78.00	4.00	18.00	
43	27785	ALESSANDRO BLVD	10,255	50	50	95.88	2.40	1.72	78.00	4.00	18.00	
44	27786	MORENO BEACH DR	6,380	45	50	97.59	1.31	1.10	78.00	4.00	18.00	
45	27787	COTTONWOOD AVE	10,759	45	50	95.54	2.63	1.83	78.00	4.00	18.00	
46	27788	COTTONWOOD AVE	3,241	40	50	97.17	1.66	1.17	78.00	4.00	18.00	
47	27805	IRONWOOD AVE	4,410	55	50	97.75	1.10	1.15	78.00	4.00	18.00	
48	27806	IRONWOOD AVE	4,137	55	50	95.68	2.17	2.15	78.00	4.00	18.00	

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

49	27862	REDLANDS BLVD	15,778	50	50	91.69	4.62	3.69	78.00	4.00	18.00
50	27863	REDLANDS BLVD	15,010	50	50	91.56	4.67	3.77	78.00	4.00	18.00
51	27864	REDLANDS BLVD	14,200	50	50	90.00	3.30	6.70	78.00	4.00	18.00
52	27865	REDLANDS BLVD	14,200	50	50	90.00	3.30	6.70	78.00	4.00	18.00
53	28114	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
54	28136	GILMAN SPRINGS RD	46,400	55	50	95.83	1.99	2.18	78.00	4.00	18.00
55	28170	IRONWOOD AVE	5,908	45	50	96.68	1.77	1.55	78.00	4.00	18.00
56	28181	NASON ST	25,087	40	50	96.36	1.81	1.83	78.00	4.00	18.00
57	28182	EUCALYPTUS AVE	13,772	40	50	95.20	2.18	2.62	78.00	4.00	18.00
58	28183	NASON ST	23,043	40	50	96.30	1.85	1.85	78.00	4.00	18.00
59	28184	COTTONWOOD AVE	2,430	45	50	97.93	1.63	0.44	78.00	4.00	18.00
60	28191	ALESSANDRO BLVD	21,119	50	50	96.39	2.03	1.58	78.00	4.00	18.00
61	28198	LASSELLE ST	9,289	40	50	98.24	1.18	0.58	78.00	4.00	18.00
62	28199	LASSELLE ST	9,785	40	50	98.36	1.15	0.49	78.00	4.00	18.00
63	28200	COTTONWOOD AVE	4,505	45	50	98.61	1.11	0.28	78.00	4.00	18.00
64	28203	LASSELLE ST	14,337	45	50	98.48	1.11	0.41	78.00	4.00	18.00
65	28204	LASSELLE ST	19,807	45	50	98.54	1.14	0.32	78.00	4.00	18.00
66	28205	GENTIAN AVE	5,114	45	50	98.54	1.34	0.12	78.00	4.00	18.00
67	28206	EUCALYPTUS AVE	14,150	40	50	95.43	2.00	2.57	78.00	4.00	18.00
68	28207	EUCALYPTUS AVE	19,021	40	50	95.93	1.83	2.24	78.00	4.00	18.00
69	28208	LASSELLE ST	11,342	45	50	98.58	1.12	0.30	78.00	4.00	18.00
70	28209	ALESSANDRO BLVD	20,505	45	50	96.60	1.94	1.46	78.00	4.00	18.00
71	28210	LASSELLE ST	15,266	45	50	98.40	1.24	0.36	78.00	4.00	18.00
72	28211	JOHN F KENNEDY DR	11,379	45	50	98.21	1.30	0.49	78.00	4.00	18.00
73	28212	COTTONWOOD AVE	5,104	45	50	98.63	1.09	0.28	78.00	4.00	18.00
74	28213	IRONWOOD AVE	13,919	40	50	97.79	1.38	0.83	78.00	4.00	18.00
75	28254	LASSELLE ST	29,711	45	50	97.20	1.65	1.15	78.00	4.00	18.00
76	28255	IRIS AVE	18,717	50	50	94.51	2.83	2.66	78.00	4.00	18.00
77	28256	KRAMERIA AVE	3,422	40	50	99.00	0.88	0.12	78.00	4.00	18.00
78	28283	LAKE PERRIS DR	14,724	40	50	97.22	1.80	0.98	78.00	4.00	18.00
79	28305	PERRIS BLVD	19,033	50	50	97.19	1.76	1.05	78.00	4.00	18.00
80	28306	MANZANITA AVE	2,226	40	50	98.33	1.25	0.42	78.00	4.00	18.00
81	28307	PERRIS BLVD	19,127	50	50	97.12	1.79	1.09	78.00	4.00	18.00
82	28320	PERRIS BLVD	20,145	50	50	97.29	1.72	0.99	78.00	4.00	18.00
83	28334	MANZANITA AVE	2,094	40	50	98.24	1.32	0.44	78.00	4.00	18.00
84	28335	SUNNYMEAD RANCH PKY	10,095	40	50	98.69	1.07	0.24	78.00	4.00	18.00
85	28342	PERRIS BLVD	42,503	40	50	97.78	1.39	0.83	78.00	4.00	18.00
86	28343	PERRIS BLVD	36,141	40	50	97.59	1.45	0.96	78.00	4.00	18.00
87	28344	EUCALYPTUS AVE	14,066	40	50	95.65	1.91	2.44	78.00	4.00	18.00
88	28345	EUCALYPTUS AVE	12,889	40	50	95.36	1.97	2.67	78.00	4.00	18.00
89	28347	N PERRIS BLVD	47,835	45	50	96.83	1.91	1.26	78.00	4.00	18.00
90	28348	NANDINA AVE	554	45	50	96.16	2.49	1.35	78.00	4.00	18.00
91	28349	PERRIS BLVD	38,715	40	50	97.78	1.39	0.83	78.00	4.00	18.00
92	28350	COTTONWOOD AVE	7,086	45	50	98.32	1.23	0.45	78.00	4.00	18.00
93	28351	COTTONWOOD AVE	6,083	45	50	98.59	1.08	0.33	78.00	4.00	18.00
94	28354	PERRIS BLVD	36,704	40	50	97.54	1.46	1.00	78.00	4.00	18.00
95	28360	PERRIS BLVD	46,095	45	50	96.86	1.88	1.26	78.00	4.00	18.00
96	28361	KRAMERIA AVE	12,187	40	50	96.47	2.14	1.39	78.00	4.00	18.00
97	28362	PERRIS BLVD	48,168	40	50	97.47	1.52	1.01	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

98	28363	PERRIS BLVD	42,145	40	50	97.50	1.54	0.96	78.00	4.00	18.00
99	28364	PERRIS BLVD	37,287	45	50	97.88	1.45	0.67	78.00	4.00	18.00
100	28365	IRIS AVE	13,565	50	50	94.67	2.70	2.63	78.00	4.00	18.00
101	28366	IRIS AVE	3,654	50	50	96.44	2.24	1.32	78.00	4.00	18.00
102	28373	COTTONWOOD AVE	1,500	40	50	97.57	1.92	0.51	78.00	4.00	18.00
103	28383	PERRIS BLVD	44,697	40	50	97.88	1.39	0.73	78.00	4.00	18.00
104	28384	JOHN F KENNEDY DR	14,432	45	50	98.20	1.28	0.52	78.00	4.00	18.00
105	28385	JOHN F KENNEDY DR	13,311	45	50	97.80	1.43	0.77	78.00	4.00	18.00
106	28386	PERRIS BLVD	36,455	40	50	97.76	1.41	0.83	78.00	4.00	18.00
107	28387	CACTUS AVE	22,300	40	50	98.14	1.50	0.36	78.00	4.00	18.00
108	28388	CACTUS AVE	22,300	40	50	97.96	1.50	0.54	78.00	4.00	18.00
109	28389	ALESSANDRO BLVD	24,902	45	50	96.95	1.78	1.27	78.00	4.00	18.00
110	28390	ALESSANDRO BLVD	25,703	45	50	97.24	1.60	1.16	78.00	4.00	18.00
111	28393	IRONWOOD AVE	8,336	40	50	96.08	1.52	2.40	78.00	4.00	18.00
112	28396	KITCHING ST	2,791	45	50	98.78	1.12	0.10	78.00	4.00	18.00
113	28397	IRIS AVE	18,717	50	50	94.51	2.83	2.66	78.00	4.00	18.00
114	28399	KITCHING ST	6,083	40	50	98.69	1.21	0.10	78.00	4.00	18.00
115	28400	ALESSANDRO BLVD	25,703	45	50	97.24	1.60	1.16	78.00	4.00	18.00
116	28401	KITCHING ST	3,711	40	50	98.73	1.16	0.11	78.00	4.00	18.00
117	28402	KITCHING ST	810	40	50	99.15	0.76	0.09	78.00	4.00	18.00
118	28424	KITCHING ST	5,055	40	50	98.52	1.06	0.42	78.00	4.00	18.00
119	28425	KITCHING ST	4,467	40	50	99.00	0.84	0.16	78.00	4.00	18.00
120	28426	COTTONWOOD AVE	5,411	45	50	98.39	1.29	0.32	78.00	4.00	18.00
121	28446	HEACOCK ST	16,841	40	50	98.21	1.27	0.52	78.00	4.00	18.00
122	28447	HEACOCK ST	15,320	40	50	98.18	1.30	0.52	78.00	4.00	18.00
123	28448	COTTONWOOD AVE	8,949	45	50	98.34	1.21	0.45	78.00	4.00	18.00
124	28449	COTTONWOOD AVE	11,404	45	50	98.24	1.21	0.55	78.00	4.00	18.00
125	28450	HEACOCK ST	20,389	45	50	98.17	1.36	0.47	78.00	4.00	18.00
126	28451	IRONWOOD AVE	8,574	40	50	96.18	1.47	2.35	78.00	4.00	18.00
127	28452	IRONWOOD AVE	8,630	45	50	97.29	1.61	1.10	78.00	4.00	18.00
128	28453	HEACOCK ST	18,247	35	50	98.13	1.36	0.51	78.00	4.00	18.00
129	28454	HEACOCK ST	15,904	35	50	98.00	1.40	0.60	78.00	4.00	18.00
130	28455	EUCALYPTUS AVE	10,376	40	50	94.03	2.56	3.41	78.00	4.00	18.00
131	28458	HEACOCK ST	19,395	35	50	97.40	1.42	1.18	78.00	4.00	18.00
132	28459	SUNNYMEAD BLVD	13,240	35	50	97.86	1.23	0.91	78.00	4.00	18.00
133	28460	SUNNYMEAD BLVD	16,655	35	50	97.32	1.45	1.23	78.00	4.00	18.00
134	28461	HEACOCK ST	20,412	35	50	97.81	1.40	0.79	78.00	4.00	18.00
135	28462	HEACOCK ST	21,351	35	50	97.96	1.41	0.63	78.00	4.00	18.00
136	28463	HEACOCK ST	16,793	50	50	96.72	1.98	1.30	78.00	4.00	18.00
137	28464	HEACOCK ST	23,453	50	50	96.24	2.04	1.72	78.00	4.00	18.00
138	28465	ALESSANDRO BLVD	28,142	45	50	97.18	1.60	1.22	78.00	4.00	18.00
139	28466	ALESSANDRO BLVD	27,959	45	50	97.10	1.63	1.27	78.00	4.00	18.00
140	28467	IRONWOOD AVE	5,908	45	50	96.68	1.77	1.55	78.00	4.00	18.00
141	28468	MANZANITA AVE	2,007	40	50	99.12	0.84	0.04	78.00	4.00	18.00
142	28469	HEACOCK ST	6,492	45	50	97.79	1.72	0.49	78.00	4.00	18.00
143	28470	SUNNYMEAD RANCH PKY	11,136	40	50	98.25	1.35	0.40	78.00	4.00	18.00
144	28471	HEACOCK ST	19,827	50	50	95.98	2.28	1.74	78.00	4.00	18.00
145	28472	MEYER ST	12,047	45	50	98.14	1.23	0.63	78.00	4.00	18.00
146	28473	N WEBSTER AVE	19,117	50	50	96.18	2.29	1.53	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

147	28482	HEACOCK ST	28,580	45	50	96.44	2.01	1.55	78.00	4.00	18.00
148	28483	JOHN F KENNEDY DR	12,321	45	50	97.60	1.53	0.87	78.00	4.00	18.00
149	28489	CACTUS AVE	22,300	40	50	98.04	1.33	0.63	78.00	4.00	18.00
150	28490	CACTUS AVE	54,200	50	50	96.37	2.02	1.61	78.00	4.00	18.00
151	28491	INDIAN ST	7,775	35	50	98.56	1.14	0.30	78.00	4.00	18.00
152	28492	INDIAN ST	7,647	35	50	98.46	1.20	0.34	78.00	4.00	18.00
153	28493	INDIAN ST	6,591	40	50	98.52	1.13	0.35	78.00	4.00	18.00
154	28494	INDIAN ST	5,684	40	50	97.96	1.72	0.32	78.00	4.00	18.00
155	28495	INDIAN ST	4,459	35	50	98.55	1.17	0.28	78.00	4.00	18.00
156	28496	INDIAN ST	2,363	40	50	98.61	1.09	0.30	78.00	4.00	18.00
157	28497	INDIAN ST	6,527	40	50	98.48	1.25	0.27	78.00	4.00	18.00
158	28507	INDIAN AVE	8,049	40	50	98.53	1.25	0.22	78.00	4.00	18.00
159	28534	GRAHAM ST	3,101	40	50	98.69	1.02	0.29	78.00	4.00	18.00
160	28537	GRAHAM ST	5,481	40	50	98.71	1.03	0.26	78.00	4.00	18.00
161	28538	GRAHAM ST	7,370	40	50	98.52	1.06	0.42	78.00	4.00	18.00
162	28539	COTTONWOOD AVE	14,306	45	50	98.21	1.21	0.58	78.00	4.00	18.00
163	28540	EUCALYPTUS AVE	10,150	40	50	93.92	2.58	3.50	78.00	4.00	18.00
164	28541	GRAHAM ST	7,649	40	50	97.53	1.63	0.84	78.00	4.00	18.00
165	28542	ALESSANDRO BLVD	26,309	45	50	97.17	1.53	1.30	78.00	4.00	18.00
166	28551	IRONWOOD AVE	7,444	40	50	95.68	1.57	2.75	78.00	4.00	18.00
167	28553	MEYER ST	12,047	45	50	98.14	1.23	0.63	78.00	4.00	18.00
168	28558	RIVERSIDE DR	4,615	25	50	98.30	1.11	0.59	78.00	4.00	18.00
169	28559	CACTUS AVE	54,200	50	50	96.18	2.12	1.70	78.00	4.00	18.00
170	28674	ELSWORTH ST	8,813	35	50	98.18	1.31	0.51	78.00	4.00	18.00
171	28675	EUCALYPTUS AVE	19,682	40	50	95.50	2.30	2.20	78.00	4.00	18.00
172	28676	EUCALYPTUS AVE	11,768	40	50	93.82	2.73	3.45	78.00	4.00	18.00
173	28678	ELSWORTH ST	8,290	35	50	97.84	1.49	0.67	78.00	4.00	18.00
174	28679	COTTONWOOD AVE	4,001	40	50	98.71	0.89	0.40	78.00	4.00	18.00
175	28680	COTTONWOOD AVE	8,381	40	50	98.24	1.27	0.49	78.00	4.00	18.00
176	28685	ELSWORTH ST	5,418	40	50	97.77	1.58	0.65	78.00	4.00	18.00
177	28686	ALESSANDRO BLVD	24,248	45	50	96.72	1.66	1.62	78.00	4.00	18.00
178	28687	ALESSANDRO BLVD	28,147	45	50	95.89	1.81	2.30	78.00	4.00	18.00
179	28688	ELSWORTH ST	8,887	40	50	97.77	1.44	0.79	78.00	4.00	18.00
180	28689	CACTUS AVE	54,200	50	50	96.15	2.12	1.73	78.00	4.00	18.00
181	28692	MEMORIAL WAY	7,842	40	50	98.76	0.91	0.33	78.00	4.00	18.00
182	28693	EUCALYPTUS AVE	31,177	35	50	94.87	2.70	2.43	78.00	4.00	18.00
183	28703	TOWN CIR	2,997	30	50	98.98	0.88	0.14	78.00	4.00	18.00
184	28729	PIGEON PASS RD	24,623	45	50	98.27	1.34	0.39	78.00	4.00	18.00
185	28730	PIGEON PASS RD	21,636	40	50	98.14	1.39	0.47	78.00	4.00	18.00
186	28731	IRONWOOD AVE	13,038	45	50	95.69	2.07	2.24	78.00	4.00	18.00
187	28732	FREDERICK ST	32,138	40	50	96.90	1.74	1.36	78.00	4.00	18.00
188	28733	CENTERPOINT DR	17,055	30	50	98.85	0.87	0.28	78.00	4.00	18.00
189	28737	PIGEON PASS RD	15,274	45	50	98.21	1.34	0.45	78.00	4.00	18.00
190	28738	PIGEON PASS RD	1,908	45	50	97.44	1.45	1.11	78.00	4.00	18.00
191	28739	PIGEON PASS RD	19,211	45	50	98.28	1.32	0.40	78.00	4.00	18.00
192	28740	FREDERICK ST	12,690	40	50	98.44	0.90	0.66	78.00	4.00	18.00
193	28742	PIGEON PASS RD	3,122	45	50	97.36	1.65	0.99	78.00	4.00	18.00
194	28743	FREDERICK ST	19,093	40	50	98.18	1.14	0.68	78.00	4.00	18.00
195	28744	FREDERICK ST	12,817	40	50	98.35	1.01	0.64	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

196	28751	FREDERICK ST	4,254	40	50	98.34	1.22	0.44	78.00	4.00	18.00
197	28760	PIGEON PASS RD	1,580	45	50	97.80	1.70	0.50	78.00	4.00	18.00
198	28775	EUCALYPTUS AVE	38,487	35	50	93.42	3.38	3.20	78.00	4.00	18.00
199	28776	EUCALYPTUS AVE	43,379	35	50	93.85	3.17	2.98	78.00	4.00	18.00
200	28781	ALESSANDRO BLVD	51,782	45	50	95.60	2.10	2.30	78.00	4.00	18.00
201	28789	E ALESSANDRO BLVD	65,867	45	50	95.60	2.19	2.21	78.00	4.00	18.00
202	28808	CACTUS AVE	59,200	50	50	94.14	2.92	2.94	78.00	4.00	18.00
203	28815	DAY ST	23,305	35	50	96.28	1.97	1.75	78.00	4.00	18.00
204	28816	DAY ST	19,330	40	50	93.21	3.11	3.68	78.00	4.00	18.00
205	28817	DAY ST	27,056	25	50	96.59	1.86	1.55	78.00	4.00	18.00
206	28823	BOX SPRINGS RD	15,188	45	50	96.50	1.55	1.95	78.00	4.00	18.00
207	28829	BOX SPRINGS RD	18,562	45	50	95.92	2.03	2.05	78.00	4.00	18.00
208	32731	BOX SPRINGS RD	19,699	45	50	96.03	1.99	1.98	78.00	4.00	18.00
209	34467	E ALESSANDRO BLVD	56,196	45	50	95.71	2.13	2.16	78.00	4.00	18.00
210	34564	HEMLOCK AVE	9,860	35	50	95.53	2.37	2.10	78.00	4.00	18.00
211	36199	IRONWOOD AVE	7,091	40	50	95.53	1.60	2.87	78.00	4.00	18.00
212	36202	PERRIS BLVD	36,852	40	50	97.36	1.58	1.06	78.00	4.00	18.00
213	36241	GILMAN SPRINGS RD	40,700	55	50	94.65	2.04	3.31	78.00	4.00	18.00
214	36242	GILMAN SPRINGS RD	46,400	55	50	95.99	1.92	2.09	78.00	4.00	18.00
215	36243	GILMAN SPRINGS RD	46,400	55	50	95.74	2.04	2.22	78.00	4.00	18.00
216	36244	GILMAN SPRINGS RD	46,400	55	50	95.68	1.96	2.36	78.00	4.00	18.00
217	36245	JACK RABBIT TRL	11,218	45	50	96.08	1.99	1.93	78.00	4.00	18.00
218	36246	ALESSANDRO BLVD	4,990	50	50	98.21	1.26	0.53	78.00	4.00	18.00
219	36247	REDLANDS BLVD	24,358	50	50	93.35	3.83	2.82	78.00	4.00	18.00
220	36248	VIA DEL LAGO	7,990	45	50	96.43	2.21	1.36	78.00	4.00	18.00
221	36249	IRIS AVE	37,740	50	50	95.37	2.46	2.17	78.00	4.00	18.00
222	36930	IRIS AVE	21,364	50	50	94.35	2.95	2.70	78.00	4.00	18.00
223	37189	MORENO BEACH DR	8,397	50	50	96.37	2.41	1.22	78.00	4.00	18.00
224	37192	ELSWORTH ST	5,418	40	50	97.77	1.58	0.65	78.00	4.00	18.00
225	41042	HIDDEN SPRINGS DR	254	45	50	98.46	1.46	0.08	78.00	4.00	18.00
226	41043	DRACAEA AVE	546	35	50	98.80	1.00	0.20	78.00	4.00	18.00
227	41044	DRACAEA AVE	2,497	35	50	98.77	0.92	0.31	78.00	4.00	18.00
228	41045	DRACAEA AVE	3,164	35	50	98.80	0.94	0.26	78.00	4.00	18.00
229	41046	DRACAEA AVE	3,765	35	50	98.68	1.03	0.29	78.00	4.00	18.00
230	41047	DRACAEA AVE	2,395	35	50	98.53	1.15	0.32	78.00	4.00	18.00
231	41048	DRACAEA AVE	5,668	35	50	98.45	1.14	0.41	78.00	4.00	18.00
232	41049	KITCHING ST	7,967	40	50	98.44	1.10	0.46	78.00	4.00	18.00
233	41050	LASSELLE ST	9,591	40	50	97.89	1.32	0.79	78.00	4.00	18.00
234	41051	PERRIS BLVD	41,110	40	50	97.74	1.40	0.86	78.00	4.00	18.00
235	41052	INDIAN ST	4,982	35	50	98.48	1.21	0.31	78.00	4.00	18.00
236	41053	HEACOCK ST	15,813	40	50	98.16	1.29	0.55	78.00	4.00	18.00
237	41054	GRAHAM ST	4,129	40	50	98.74	1.06	0.20	78.00	4.00	18.00
238	41055	FREDERICK ST	20,171	40	50	98.18	1.16	0.66	78.00	4.00	18.00
239	41056	RECHE VISTA DR	16,808	50	50	96.40	2.22	1.38	78.00	4.00	18.00
240	41057	VIA DEL LAGO	3,448	45	50	100.00	0.00	0.00	78.00	4.00	18.00
241	41059	ALTA CALLE	7,999	45	50	96.44	2.20	1.36	78.00	4.00	18.00
242	41060	ALTA CALLE	5,617	45	50	96.31	2.05	1.64	78.00	4.00	18.00
243	41061	ALTA CALLE	6,280	45	50	96.07	2.21	1.72	78.00	4.00	18.00
244	41062	LAKE PERRIS DR	9,545	40	50	96.46	2.20	1.34	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

245	41064	LAKE PERRIS DR	5,239	40	50	96.15	2.14	1.71	78.00	4.00	18.00
246	41065	EVANS RD	28,971	45	50	97.19	1.65	1.16	78.00	4.00	18.00
247	41066	LASSELLE ST	28,971	45	50	97.19	1.65	1.16	78.00	4.00	18.00
248	41067	VIA DEL LAGO	4,542	45	50	100.00	0.00	0.00	78.00	4.00	18.00
249	41068	LAKE PERRIS DR	4,306	40	50	96.15	2.14	1.71	78.00	4.00	18.00
250	41069	TOWNGATE AVE	18,914	40	50	95.73	2.42	1.85	78.00	4.00	18.00
251	41070	TOWNGATE AVE	18,914	40	50	95.73	2.42	1.85	78.00	4.00	18.00
252	41071	OLD 215 FRONTAGE RD	10,523	50	50	96.29	2.32	1.39	78.00	4.00	18.00
253	41072	OLD 215 FRONTAGE RD	6,788	50	50	96.48	2.04	1.48	78.00	4.00	18.00
254	41073	COTTONWOOD AVE	4,295	35	50	96.52	2.35	1.13	78.00	4.00	18.00
255	44344	SUNNYMEAD RANCH PKY	4,644	40	50	98.42	1.29	0.29	78.00	4.00	18.00
256	44345	OLD LAKE DR	11,009	40	50	98.30	1.35	0.35	78.00	4.00	18.00
257	44346	SUNNYMEAD RANCH PKY	1,850	40	50	98.19	1.29	0.52	78.00	4.00	18.00
258	44347	LAKE VISTA RD	2,583	25	50	98.45	1.40	0.15	78.00	4.00	18.00
259	44348	HEACOCK ST	4,438	45	50	97.27	2.05	0.68	78.00	4.00	18.00
260	44355	COTTONWOOD AVE	2,512	45	50	98.52	1.13	0.35	78.00	4.00	18.00
261	44356	MORRISON ST	3,563	35	50	98.83	1.07	0.10	78.00	4.00	18.00
262	44357	CANYON SPRINGS PKY	2,146	40	50	95.84	2.50	1.66	78.00	4.00	18.00
263	44358	MEMORIAL WAY	4,962	40	50	99.05	0.79	0.16	78.00	4.00	18.00
264	44359	GATEWAY DR	4,704	35	50	98.94	0.68	0.38	78.00	4.00	18.00
265	44360	LASSELLE ST	28,971	45	50	97.19	1.65	1.16	78.00	4.00	18.00
266	44361	KRAMERIA AVE	3,514	40	50	99.03	0.85	0.12	78.00	4.00	18.00
267	44362	KRAMERIA AVE	3,422	40	50	99.00	0.88	0.12	78.00	4.00	18.00
268	44464	ALESSANDRO BLVD	39,812	45	50	95.96	1.84	2.20	78.00	4.00	18.00
269	44465	N PERRIS BLVD	47,256	45	50	96.85	1.90	1.25	78.00	4.00	18.00
270	44807	GILMAN SPRINGS RD	46,400	55	50	95.92	1.94	2.14	78.00	4.00	18.00
271	44812	TOWN CIR	2,354	30	50	99.69	0.10	0.21	78.00	4.00	18.00
272	44813	TOWN CIR	977	30	50	99.25	0.25	0.50	78.00	4.00	18.00
273	44814	TOWN CIR	2,354	30	50	99.69	0.10	0.21	78.00	4.00	18.00
274	44816	TOWN CIR	1,966	30	50	99.14	0.66	0.20	78.00	4.00	18.00
275	44823	LASSELLE ST	30,711	45	50	97.35	1.58	1.07	78.00	4.00	18.00
276	44826	CACTUS AVE	12,300	45	50	98.03	1.47	0.50	78.00	4.00	18.00
277	44827	CACTUS AVE	12,300	45	50	98.15	1.37	0.48	78.00	4.00	18.00
278	44828	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
279	44829	EUCALYPTUS AVE	8,655	40	50	91.29	3.24	5.47	78.00	4.00	18.00
280	44830	KRAMERIA AVE	4,204	40	50	91.70	3.54	4.76	78.00	4.00	18.00
281	44831	ALESSANDRO BLVD	19,560	50	50	96.42	2.07	1.51	78.00	4.00	18.00
282	44832	LASSELLE ST	28,971	45	50	97.19	1.65	1.16	78.00	4.00	18.00
283	44833	QUINCY ST	793	45	50	97.11	2.36	0.53	78.00	4.00	18.00
284	44834	COTTONWOOD AVE	6,018	45	50	94.92	2.96	2.12	78.00	4.00	18.00
285	46116	N PERRIS BLVD	47,256	45	50	96.85	1.90	1.25	78.00	4.00	18.00
286	46264	SAN MICHELLE AV	786	40	50	95.35	3.12	1.53	78.00	4.00	18.00
287	46868	HEACOCK ST	22,123	50	50	96.22	2.08	1.70	78.00	4.00	18.00
288	48026	GRAEBER ST	22,299	25	50	95.55	2.19	2.26	78.00	4.00	18.00
289	48027	IRIS AVE	3,989	50	50	96.66	2.06	1.28	78.00	4.00	18.00
290	48028	GRAEBER ST	22,299	25	50	95.55	2.19	2.26	78.00	4.00	18.00
291	48029	SAN MICHELLE AV	243	40	50	89.82	8.78	1.40	78.00	4.00	18.00
292	48030	GRAEBER ST	815	25	50	98.76	0.80	0.44	78.00	4.00	18.00
293	48031	RIVERSIDE DR	16,259	25	50	98.21	1.19	0.60	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

294	48294	LASSELLE ST	1,291	40	50	98.77	1.16	0.07	78.00	4.00	18.00
295	48295	RECHE CANYON RD	16,861	40	50	96.40	2.22	1.38	78.00	4.00	18.00
296	48346	EUCALYPTUS AVE	32,799	35	50	93.26	3.34	3.40	78.00	4.00	18.00
297	48348	INDIAN ST	10,340	45	50	95.79	2.66	1.55	78.00	4.00	18.00
298	48349	INDIAN ST	10,340	45	50	95.79	2.66	1.55	78.00	4.00	18.00
299	48350	NANDINA AVE	2	45	50	97.55	1.91	0.54	78.00	4.00	18.00
300	48351	INDIAN ST	9,520	45	50	95.98	2.48	1.54	78.00	4.00	18.00
301	48352	INDIAN ST	9,551	45	50	95.97	2.49	1.54	78.00	4.00	18.00
302	48353	LOCUST AVE	8,367	40	50	96.35	2.42	1.23	78.00	4.00	18.00
303	48358	E OLEANDER AVE	6,946	25	50	97.84	1.69	0.47	78.00	4.00	18.00
304	48366	N PERRIS BLVD	46,340	45	50	96.82	1.92	1.26	78.00	4.00	18.00
305	51959	HEACOCK ST	15,174	50	50	97.88	1.45	0.67	78.00	4.00	18.00
306	51963	HEACOCK ST	15,174	50	50	97.88	1.45	0.67	78.00	4.00	18.00
307	51964	NASON ST	22,715	45	50	96.56	1.77	1.67	78.00	4.00	18.00
308	51965	NASON ST	14,304	45	50	96.37	1.94	1.69	78.00	4.00	18.00
309	52667	REDLANDS BLVD	16,132	50	50	91.70	4.58	3.72	78.00	4.00	18.00
310	52670	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
311	52672	MORENO BEACH DR	15,513	45	50	95.50	2.28	2.22	78.00	4.00	18.00
312	52673	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
313	52675	REDLANDS BLVD	22,044	50	50	85.15	5.56	9.29	78.00	4.00	18.00
314	52679	GILMAN SPRINGS RD	40,700	55	50	94.65	2.04	3.31	78.00	4.00	18.00
315	52682	GILMAN SPRINGS RD	40,700	55	50	95.52	1.89	2.59	78.00	4.00	18.00
316	52714	NASON ST	21,109	45	50	97.02	1.69	1.29	78.00	4.00	18.00
317	52715	NASON ST	10,810	40	50	97.16	1.44	1.40	78.00	4.00	18.00
318	53302	N PERRIS BLVD	34,884	45	50	96.77	1.98	1.25	78.00	4.00	18.00
319	53307	INDIAN ST	11,762	45	50	97.54	1.73	0.73	78.00	4.00	18.00
320	53313	OLD I-215 FRONTAGE RD	16,592	50	50	95.16	2.82	2.02	78.00	4.00	18.00
321	53490	HEACOCK ST	15,937	35	50	97.85	1.37	0.78	78.00	4.00	18.00
322	53491	PERRIS BLVD	36,704	40	50	97.54	1.46	1.00	78.00	4.00	18.00
323	53492	REDLANDS BLVD	15,010	50	50	91.56	4.67	3.77	78.00	4.00	18.00
324	54317	HEMLOCK AVE	1,874	35	50	97.95	1.57	0.48	78.00	4.00	18.00
325	54318	GRAHAM ST	7,159	40	50	98.37	1.38	0.25	78.00	4.00	18.00
326	54744	DAY ST	24,851	40	50	94.15	2.48	3.37	78.00	4.00	18.00
327	56560	PIGEON PASS RD	928	45	50	97.49	1.98	0.53	78.00	4.00	18.00
328	56965	N WEBSTER AVE	19,827	50	50	95.98	2.28	1.74	78.00	4.00	18.00
329	56967	INDIAN ST	11,762	45	50	97.54	1.73	0.73	78.00	4.00	18.00
330	56969	N PERRIS BLVD	34,884	45	50	96.77	1.98	1.25	78.00	4.00	18.00
331	56974	GATEWAY DR	4,704	35	50	98.94	0.68	0.38	78.00	4.00	18.00
332	56976	RECHE CANYON RD	78	40	50	99.86	0.00	0.14	78.00	4.00	18.00
333	56977	INDIAN ST	4,995	45	50	97.95	1.69	0.36	78.00	4.00	18.00
334	56978	KRAMERIA AVE	144	40	50	97.25	1.98	0.77	78.00	4.00	18.00
335	56979	HEACOCK ST	16,924	50	50	97.08	1.84	1.08	78.00	4.00	18.00
336	56980	KRAMERIA AVE	60	40	50	96.77	2.84	0.39	78.00	4.00	18.00
337	56981	EVANS RD	23,176	45	50	96.84	1.79	1.37	78.00	4.00	18.00
338	57031	DAY ST	10,320	40	50	95.96	2.30	1.74	78.00	4.00	18.00
339	57032	OLD I-215 FRONTAGE RD	26,912	50	50	95.46	2.63	1.91	78.00	4.00	18.00
340	57033	HEACOCK ST	12,973	45	50	97.83	1.45	0.72	78.00	4.00	18.00
341	57034	INDIAN ST	4,743	40	50	98.27	1.21	0.52	78.00	4.00	18.00
342	57035	GENTIAN AVE	4,720	45	50	97.98	1.45	0.57	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

343	57036	PERRIS BLVD	33,254	45	50	97.83	1.44	0.73	78.00	4.00	18.00
344	57037	GENTIAN AVE	6,437	45	50	98.07	1.35	0.58	78.00	4.00	18.00
345	57038	GENTIAN AVE	7,690	45	50	98.36	1.44	0.20	78.00	4.00	18.00
346	57041	NASON ST	13,851	45	50	96.37	1.90	1.73	78.00	4.00	18.00
347	57042	IRIS AVE	19,894	50	50	94.01	3.11	2.88	78.00	4.00	18.00
348	57043	OLIVER ST	648	35	50	98.65	1.26	0.09	78.00	4.00	18.00
349	57044	SAN MICHELLE AV	243	40	50	89.82	8.78	1.40	78.00	4.00	18.00
350	57045	OLIVER ST	3,602	35	50	97.07	2.05	0.88	78.00	4.00	18.00
351	57046	CACTUS AVE	10,900	50	50	97.41	1.52	1.07	78.00	4.00	18.00
352	57047	ALESSANDRO BLVD	8,862	50	50	95.58	2.58	1.84	78.00	4.00	18.00
353	57048	OLIVER ST	535	40	50	98.40	1.42	0.18	78.00	4.00	18.00
354	57049	CACTUS AVE	10,900	50	50	96.79	2.33	0.88	78.00	4.00	18.00
355	57050	JOHN F KENNEDY DR	309	45	50	99.07	0.87	0.06	78.00	4.00	18.00
356	57051	ALESSANDRO BLVD	2,492	40	50	94.54	3.15	2.31	78.00	4.00	18.00
357	57052	CACTUS AVE	14,300	50	50	95.70	2.78	1.52	78.00	4.00	18.00
358	57053	QUINCY ST	533	45	50	98.25	1.66	0.09	78.00	4.00	18.00
359	57054	COTTONWOOD AVE	3,142	45	50	93.05	4.25	2.70	78.00	4.00	18.00
360	57055	QUINCY ST	2,258	45	50	99.04	0.84	0.12	78.00	4.00	18.00
361	57056	QUINCY ST	2,519	45	50	96.31	2.12	1.57	78.00	4.00	18.00
362	57057	REDLANDS BLVD	11,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
363	57059	EUCALYPTUS AVE	14,182	40	50	93.24	3.01	3.75	78.00	4.00	18.00
364	57060	PERRIS BLVD	41,960	40	50	97.74	1.41	0.85	78.00	4.00	18.00
365	57062	MORRISON ST	297	35	50	98.79	0.92	0.29	78.00	4.00	18.00
366	57063	ALESSANDRO BLVD	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
367	57064	ALESSANDRO BLVD	7,126	50	50	94.97	2.93	2.10	78.00	4.00	18.00
368	57065	REDLANDS BLVD	14,200	50	50	90.00	3.30	6.70	78.00	4.00	18.00
369	57066	CACTUS AVE	6,987	50	50	94.86	3.00	2.14	78.00	4.00	18.00
370	57067	THEODORE AVE	37,000	50	50	80.00	8.00	12.00	78.00	4.00	18.00
371	57068	EUCALYPTUS AVE	31,600	40	50	80.00	9.50	10.50	78.00	4.00	18.00
372	57069	REDLANDS BLVD	11,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
373	57071	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
374	57072	GILMAN SPRINGS RD	40,700	55	50	95.52	2.12	2.36	78.00	4.00	18.00
375	57073	THEODORE AVE	37,000	50	50	80.00	8.00	12.00	78.00	4.00	18.00
376	57074	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
377	57075	THEODORE AVE	37,000	50	50	80.00	8.00	12.00	78.00	4.00	18.00
378	57076	GRAHAM ST	613	40	50	98.75	1.21	0.04	78.00	4.00	18.00
379	57077	IRONWOOD AVE	10,742	40	50	97.54	1.48	0.98	78.00	4.00	18.00
380	57078	REDLANDS BLVD	18,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
381	57079	EUCALYPTUS AVE	12,100	40	50	80.00	9.60	10.40	78.00	4.00	18.00
382	57080	THEODORE AVE	35,100	50	50	80.00	8.00	12.00	78.00	4.00	18.00
383	57081	EUCALYPTUS AVE	12,100	40	50	80.00	9.60	10.40	78.00	4.00	18.00
384	57082	EUCALYPTUS AVE	31,600	40	50	80.00	9.50	10.50	78.00	4.00	18.00
385	57083	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
386	57084	THEODORE AVE	37,000	50	50	80.00	8.00	12.00	78.00	4.00	18.00
387	57085	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
388	57086	REDLANDS BLVD	11,400	50	50	90.00	3.30	6.70	78.00	4.00	18.00
389	57087	ENCELIA AVE	4,777	35	50	83.49	7.70	8.81	78.00	4.00	18.00
390	57088	IRONWOOD AVE	1,548	55	50	94.93	2.74	2.33	78.00	4.00	18.00
391	57089	QUINCY ST	1,780	45	50	96.26	2.23	1.51	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

392	57091	GILMAN SPRINGS RD	46,400	55	50	95.92	1.94	2.14	78.00	4.00	18.00
393	57093	IRONWOOD AVE	10,714	45	50	97.53	1.49	0.98	78.00	4.00	18.00
394	57095	ELDER AVE	5,451	35	50	98.49	1.24	0.27	78.00	4.00	18.00
395	57096	ELDER AVE	3,739	40	50	98.44	1.41	0.15	78.00	4.00	18.00
396	57097	LOCUST AVE	8,757	40	50	96.43	2.38	1.19	78.00	4.00	18.00
397	57098	QUINCY ST	334	45	50	98.27	1.39	0.34	78.00	4.00	18.00
398	57100	IRONWOOD AVE	527	55	50	98.94	0.52	0.54	78.00	4.00	18.00
399	57101	ELDER AVE	5,451	35	50	98.49	1.24	0.27	78.00	4.00	18.00
400	57127	RECHE VISTA DR	16,690	50	50	96.37	2.24	1.39	78.00	4.00	18.00
401	57222	GILMAN SPRINGS RD	40,700	55	50	95.52	2.12	2.36	78.00	4.00	18.00
402	57223	EUCALYPTUS AVE	31,600	40	50	80.00	9.50	10.50	78.00	4.00	18.00
403	57282	PIGEON PASS RD	928	45	50	97.49	1.98	0.53	78.00	4.00	18.00
404	57495	KITCHING ST	12,766	40	50	96.86	1.87	1.27	78.00	4.00	18.00
405	57513	IRONWOOD AVE	13,038	45	50	95.69	2.07	2.24	78.00	4.00	18.00
406	57514	HEACOCK ST	27,812	50	50	96.60	1.92	1.48	78.00	4.00	18.00
407	58231	GILMAN SPRINGS RD	40,700	55	50	95.25	2.17	2.58	78.00	4.00	18.00
408	58345	GILMAN SPRINGS RD	46,400	55	50	96.00	1.91	2.09	78.00	4.00	18.00
409	58347	CACTUS AVE	7,078	50	50	94.95	2.94	2.11	78.00	4.00	18.00
410	58348	JOHN F KENNEDY DR	13,422	45	50	91.79	4.16	4.05	78.00	4.00	18.00
411	58350	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
412	58351	PIGEON PASS RD	1,656	45	50	97.85	1.66	0.49	78.00	4.00	18.00
413	58352	GATEWAY DR	4,704	35	50	98.94	0.68	0.38	78.00	4.00	18.00
414	58353	TOWN CIR	20,161	30	50	96.11	2.42	1.47	78.00	4.00	18.00
415	58354	VIA DEL LAGO	8,522	45	50	96.41	2.17	1.42	78.00	4.00	18.00
416	58395	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
417	58396	REDLANDS BLVD	23,677	50	50	93.26	3.87	2.87	78.00	4.00	18.00
418	58403	RECHE VISTA DR	16,690	50	50	96.37	2.24	1.39	78.00	4.00	18.00
419	58404	HIGHLAND BLVD	768	40	50	94.40	3.49	2.11	78.00	4.00	18.00
420	58405	IRONWOOD AVE	10	55	50	89.40	3.53	7.07	78.00	4.00	18.00
421	58406	THEODORE AVE	778	50	50	94.34	3.48	2.18	78.00	4.00	18.00
422	58407	QUINCY ST	729	45	50	96.80	2.81	0.39	78.00	4.00	18.00
423	58408	IRONWOOD AVE	232	55	50	85.29	2.17	12.54	78.00	4.00	18.00
424	58409	IRONWOOD AVE	1,548	55	50	94.93	2.74	2.33	78.00	4.00	18.00
425	58411	CACTUS AVE	10,900	50	50	97.04	2.03	0.93	78.00	4.00	18.00
426	58412	GRAEBER ST	22,299	25	50	95.55	2.19	2.26	78.00	4.00	18.00
427	58413	CACTUS AVE	10,900	50	50	97.31	1.86	0.83	78.00	4.00	18.00
428	58414	OLIVER ST	957	35	50	98.79	1.13	0.08	78.00	4.00	18.00
429	58415	CACTUS AVE	14,300	50	50	95.85	2.95	1.20	78.00	4.00	18.00
430	58416	CACTUS AVE	14,300	50	50	95.92	2.68	1.40	78.00	4.00	18.00
431	58417	IRIS AVE	38,531	50	50	95.43	2.43	2.14	78.00	4.00	18.00
432	58419	ALTA CALLE	7,999	45	50	96.44	2.20	1.36	78.00	4.00	18.00
433	58420	IRIS AVE	19,958	50	50	94.03	3.10	2.87	78.00	4.00	18.00
434	58421	NASON ST	13,851	45	50	96.37	1.90	1.73	78.00	4.00	18.00
435	58422	LAKE PERRIS DR	6,692	40	50	96.15	2.14	1.71	78.00	4.00	18.00
436	58423	ALTA CALLE	5,617	45	50	96.31	2.05	1.64	78.00	4.00	18.00
437	58451	EUCALYPTUS AVE	8,655	40	50	91.29	3.24	5.47	78.00	4.00	18.00
438	58452	QUINCY ST	2,474	45	50	91.05	5.09	3.86	78.00	4.00	18.00
439	58453	EUCALYPTUS AVE	14,182	40	50	93.24	3.01	3.75	78.00	4.00	18.00
440	58454	MORENO BEACH DR	11,520	45	50	92.80	3.50	3.70	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

441	58455	NASON ST	16,928	40	50	96.52	1.60	1.88	78.00	4.00	18.00
442	58456	COTTONWOOD AVE	1,500	40	50	97.57	1.92	0.51	78.00	4.00	18.00
443	58457	IRONWOOD AVE	4,712	55	50	95.93	2.13	1.94	78.00	4.00	18.00
444	58458	NASON ST	2,737	40	50	98.66	1.12	0.22	78.00	4.00	18.00
445	58459	MORENO BEACH DR	15,513	45	50	95.50	2.28	2.22	78.00	4.00	18.00
446	58460	NASON ST	23,043	40	50	96.30	1.85	1.85	78.00	4.00	18.00
447	58461	ALESSANDRO BLVD	8,862	50	50	95.58	2.58	1.84	78.00	4.00	18.00
448	58976	IRONWOOD AVE	10,742	40	50	97.54	1.48	0.98	78.00	4.00	18.00
449	58977	IRONWOOD AVE	6,664	45	50	96.90	1.69	1.41	78.00	4.00	18.00
450	58978	ALESSANDRO BLVD	7,126	50	50	94.97	2.93	2.10	78.00	4.00	18.00
451	58979	PERRIS BLVD	19,127	50	50	97.12	1.79	1.09	78.00	4.00	18.00
452	58980	PERRIS BLVD	17,415	50	50	97.08	1.78	1.14	78.00	4.00	18.00
453	58990	PERRIS BLVD	19,033	50	50	97.19	1.76	1.05	78.00	4.00	18.00
454	58991	INDIAN AVE	1,922	40	50	98.05	1.49	0.46	78.00	4.00	18.00
455	58992	HEACOCK ST	4,438	45	50	97.27	2.05	0.68	78.00	4.00	18.00
456	58994	SUNNYMEAD RANCH PKY	8,347	40	50	98.86	0.96	0.18	78.00	4.00	18.00
457	58995	PERRIS BLVD	12,251	50	50	96.05	2.30	1.65	78.00	4.00	18.00
458	58996	ELDER AVE	3,739	35	50	98.44	1.41	0.15	78.00	4.00	18.00
459	58997	MORENO BEACH DR	8,397	50	50	96.37	2.41	1.22	78.00	4.00	18.00
460	58998	MANZANITA AVE	2,007	40	50	99.12	0.84	0.04	78.00	4.00	18.00
461	59014	PIGEON PASS RD	3,271	45	50	97.42	1.63	0.95	78.00	4.00	18.00
462	59015	HEACOCK ST	16,588	45	50	98.14	1.39	0.47	78.00	4.00	18.00
463	59016	IRONWOOD AVE	8,454	40	50	96.13	1.49	2.38	78.00	4.00	18.00
464	59017	HEACOCK ST	17,003	45	50	98.14	1.40	0.46	78.00	4.00	18.00
465	59018	PIGEON PASS RD	19,211	45	50	98.28	1.32	0.40	78.00	4.00	18.00
466	59019	ELDER AVE	5,476	35	50	98.49	1.24	0.27	78.00	4.00	18.00
467	59022	GRAEBER ST	17,367	25	50	98.38	1.08	0.54	78.00	4.00	18.00
468	59058	PIGEON PASS RD	1,656	45	50	97.85	1.66	0.49	78.00	4.00	18.00
469	59059	HIDDEN SPRINGS DR	254	45	50	98.46	1.46	0.08	78.00	4.00	18.00
470	59060	BOX SPRINGS RD	15,188	45	50	96.50	1.55	1.95	78.00	4.00	18.00
471	59062	SUNNYMEAD RANCH PKY	4,644	40	50	98.42	1.29	0.29	78.00	4.00	18.00
472	59064	OLD LAKE DR	11,009	40	50	98.30	1.35	0.35	78.00	4.00	18.00
473	59066	SUNNYMEAD RANCH PKY	16,558	40	50	98.32	1.33	0.35	78.00	4.00	18.00
474	59069	IRONWOOD AVE	14,197	40	50	96.98	1.52	1.50	78.00	4.00	18.00
475	59073	COTTONWOOD AVE	4,295	35	50	96.52	2.35	1.13	78.00	4.00	18.00
476	59101	PIGEON PASS RD	24,623	45	50	98.27	1.34	0.39	78.00	4.00	18.00
477	59102	BOX SPRINGS RD	18,562	45	50	95.92	2.03	2.05	78.00	4.00	18.00
478	59432	LASSELLE ST	27,991	45	50	97.16	1.67	1.17	78.00	4.00	18.00
479	59433	KITCHING ST	11,105	40	50	97.88	1.50	0.62	78.00	4.00	18.00
480	59437	LASSELLE ST	17,225	45	50	98.45	1.17	0.38	78.00	4.00	18.00
481	59438	KITCHING ST	10,358	40	50	98.27	1.32	0.41	78.00	4.00	18.00
482	59439	GENTIAN AVE	5,470	45	50	98.69	1.22	0.09	78.00	4.00	18.00
483	59440	N PERRIS BLVD	47,895	45	50	96.76	1.96	1.28	78.00	4.00	18.00
484	59442	N WEBSTER AVE	19,827	50	50	95.98	2.28	1.74	78.00	4.00	18.00
485	59444	N WEBSTER AVE	19,827	50	50	95.98	2.28	1.74	78.00	4.00	18.00
486	59446	NANDINA AVE	1,499	45	50	97.23	1.67	1.10	78.00	4.00	18.00
487	59447	NANDINA AVE	32	45	50	95.62	2.97	1.41	78.00	4.00	18.00
488	59448	INDIAN ST	12,548	45	50	95.75	2.42	1.83	78.00	4.00	18.00
489	59449	KRAMERIA AVE	6,454	40	50	95.55	3.11	1.34	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

490	59450	KRAMERIA AVE	4,204	40	50	91.70	3.54	4.76	78.00	4.00	18.00
491	59451	INDIAN ST	5,033	45	50	97.94	1.69	0.37	78.00	4.00	18.00
492	59452	GENTIAN AVE	7,047	45	50	98.39	1.32	0.29	78.00	4.00	18.00
493	59453	INDIAN ST	3,047	40	50	98.21	1.31	0.48	78.00	4.00	18.00
494	59454	PERRIS BLVD	36,306	45	50	97.86	1.45	0.69	78.00	4.00	18.00
495	59455	HEACOCK ST	16,924	40	50	97.08	1.84	1.08	78.00	4.00	18.00
496	59458	HEACOCK ST	15,411	50	50	97.76	1.56	0.68	78.00	4.00	18.00
497	59467	INDIAN ST	10,038	40	50	98.00	1.40	0.60	78.00	4.00	18.00
498	59468	HEACOCK ST	27,115	45	50	96.34	2.04	1.62	78.00	4.00	18.00
499	59469	CACTUS AVE	22,300	40	50	98.13	1.34	0.53	78.00	4.00	18.00
500	59470	INDIAN ST	5,921	40	50	98.42	1.16	0.42	78.00	4.00	18.00
501	59471	GENTIAN AVE	3,649	45	50	97.72	1.42	0.86	78.00	4.00	18.00
502	59473	GRAHAM ST	7,159	40	50	98.37	1.38	0.25	78.00	4.00	18.00
503	59474	HEACOCK ST	18,247	35	50	98.13	1.36	0.51	78.00	4.00	18.00
504	59475	INDIAN ST	7,647	35	50	98.46	1.20	0.34	78.00	4.00	18.00
505	59476	HEACOCK ST	11,732	45	50	97.71	1.54	0.75	78.00	4.00	18.00
506	59477	GRAHAM ST	10,272	40	50	97.77	1.38	0.85	78.00	4.00	18.00
507	59478	CACTUS AVE	54,200	50	50	96.48	1.97	1.55	78.00	4.00	18.00
508	59479	COTTONWOOD AVE	11,169	45	50	98.54	1.09	0.37	78.00	4.00	18.00
509	59480	GRAHAM ST	3,125	40	50	98.69	1.01	0.30	78.00	4.00	18.00
510	59481	HEACOCK ST	9,194	40	50	98.04	1.39	0.57	78.00	4.00	18.00
511	59482	HEMLOCK AVE	1,874	35	50	97.95	1.57	0.48	78.00	4.00	18.00
512	59483	SUNNYMEAD BLVD	16,665	35	50	97.43	1.41	1.16	78.00	4.00	18.00
513	59484	HEACOCK ST	15,937	35	50	97.85	1.37	0.78	78.00	4.00	18.00
514	59486	GRAHAM ST	8,615	40	50	98.25	1.22	0.53	78.00	4.00	18.00
515	59487	EUCALYPTUS AVE	13,648	40	50	95.27	2.12	2.61	78.00	4.00	18.00
516	59488	INDIAN ST	7,924	35	50	98.00	1.44	0.56	78.00	4.00	18.00
517	59490	EUCALYPTUS AVE	9,812	40	50	94.27	2.28	3.45	78.00	4.00	18.00
518	59491	CANYON SPRINGS PKY	1,469	40	50	98.61	0.68	0.71	78.00	4.00	18.00
519	59493	EUCALYPTUS AVE	11,456	40	50	94.54	2.35	3.11	78.00	4.00	18.00
520	59494	COTTONWOOD AVE	6,976	45	50	98.52	1.14	0.34	78.00	4.00	18.00
521	59495	INDIAN ST	2,109	40	50	98.55	1.17	0.28	78.00	4.00	18.00
522	59543	FREDERICK ST	4,916	40	50	98.32	1.17	0.51	78.00	4.00	18.00
523	59544	CACTUS AVE	54,200	50	50	96.21	2.10	1.69	78.00	4.00	18.00
524	59545	ELSWORTH ST	14,577	40	50	95.39	1.77	2.84	78.00	4.00	18.00
525	59546	CACTUS AVE	59,200	50	50	95.20	2.47	2.33	78.00	4.00	18.00
526	59547	ELSWORTH ST	5,418	40	50	97.77	1.58	0.65	78.00	4.00	18.00
527	59548	ALESSANDRO BLVD	51,345	45	50	95.91	1.96	2.13	78.00	4.00	18.00
528	59549	E ALESSANDRO BLVD	57,666	45	50	95.65	2.13	2.22	78.00	4.00	18.00
529	59550	OLD I-215 FRONTAGE RD	15,985	50	50	95.66	2.42	1.92	78.00	4.00	18.00
530	59552	TOWN CIR	20,161	30	50	96.11	2.42	1.47	78.00	4.00	18.00
531	59553	TOWN CIR	977	30	50	99.25	0.25	0.50	78.00	4.00	18.00
532	59554	COTTONWOOD AVE	8,381	40	50	98.24	1.27	0.49	78.00	4.00	18.00
533	59556	DAY ST	25,218	25	50	96.65	1.79	1.56	78.00	4.00	18.00
534	59558	MEMORIAL WAY	4,962	40	50	99.05	0.79	0.16	78.00	4.00	18.00
535	59559	CORPORATE CENTRE PL	71	40	50	94.75	2.34	2.91	78.00	4.00	18.00
536	59560	TOWN CIR	14,666	30	50	98.72	0.99	0.29	78.00	4.00	18.00
537	59561	TOWN CIR	977	30	50	99.25	0.25	0.50	78.00	4.00	18.00
538	59562	FREDERICK ST	11,437	40	50	98.46	0.94	0.60	78.00	4.00	18.00

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

539	59563	ELSWORTH ST	8,407	35	50	97.76	1.52	0.72	78.00	4.00	18.00
540	59564	ALESSANDRO BLVD	24,207	45	50	96.72	1.66	1.62	78.00	4.00	18.00
541	59565	EUCALYPTUS AVE	19,682	40	50	95.50	2.30	2.20	78.00	4.00	18.00
542	59567	ELSWORTH ST	9,539	35	50	97.93	1.57	0.50	78.00	4.00	18.00
543	59568	COTTONWOOD AVE	4,001	40	50	98.71	0.89	0.40	78.00	4.00	18.00
544	59569	COTTONWOOD AVE	13,261	45	50	98.37	1.13	0.50	78.00	4.00	18.00
545	59570	DAY ST	25,309	40	50	94.19	2.46	3.35	78.00	4.00	18.00
546	59572	CORPORATE CENTRE PL	71	40	50	94.75	2.34	2.91	78.00	4.00	18.00
547	59574	DAY ST	11,030	40	50	97.56	1.63	0.81	78.00	4.00	18.00
548	59575	CACTUS AVE	12,300	45	50	98.11	1.40	0.49	78.00	4.00	18.00
549	59576	CACTUS AVE	12,300	45	50	98.15	1.37	0.48	78.00	4.00	18.00
550	59577	COTTONWOOD AVE	2,430	45	50	97.93	1.63	0.44	78.00	4.00	18.00
551	59578	MORRISON ST	2,599	35	50	98.95	0.94	0.11	78.00	4.00	18.00
552	59579	ALESSANDRO BLVD	20,218	50	50	96.51	2.02	1.47	78.00	4.00	18.00
553	59580	LASSELLE ST	10,220	40	50	98.25	1.21	0.54	78.00	4.00	18.00
554	59581	KITCHING ST	5,685	40	50	98.70	0.96	0.34	78.00	4.00	18.00
555	59582	ALESSANDRO BLVD	16,038	45	50	96.08	2.14	1.78	78.00	4.00	18.00
556	59583	EUCALYPTUS AVE	19,021	40	50	95.93	1.83	2.24	78.00	4.00	18.00
557	59585	DRACAEA AVE	4,733	35	50	98.42	1.19	0.39	78.00	4.00	18.00
558	59587	LASSELLE ST	11,666	45	50	98.51	1.18	0.31	78.00	4.00	18.00
559	59589	CACTUS AVE	22,300	40	50	97.75	1.61	0.64	78.00	4.00	18.00
560	59590	HEACOCK ST	21,007	50	50	96.00	2.18	1.82	78.00	4.00	18.00
561	59591	ELDER AVE	5,451	35	50	98.49	1.24	0.27	78.00	4.00	18.00
562	59592	SUNNYMEAD BLVD	16,871	40	50	98.12	1.17	0.71	78.00	4.00	18.00
563	59593	LASSELLE ST	1,425	40	50	98.71	1.23	0.06	78.00	4.00	18.00
564	59594	EUCALYPTUS AVE	14,150	40	50	95.43	2.00	2.57	78.00	4.00	18.00
565	59595	EUCALYPTUS AVE	13,772	40	50	95.20	2.18	2.62	78.00	4.00	18.00
566	59596	SUNNYMEAD BLVD	21,947	40	50	97.69	1.39	0.92	78.00	4.00	18.00
567	59597	EUCALYPTUS AVE	11,800	40	50	95.07	2.07	2.86	78.00	4.00	18.00
568	59598	COTTONWOOD AVE	2,512	45	50	98.52	1.13	0.35	78.00	4.00	18.00
569	59599	MORRISON ST	4,854	35	50	98.27	1.43	0.30	78.00	4.00	18.00
570	59600	KITCHING ST	1,991	40	50	98.96	0.86	0.18	78.00	4.00	18.00
571	59601	PERRIS BLVD	40,078	40	50	97.74	1.42	0.84	78.00	4.00	18.00
572	59602	CACTUS AVE	22,300	40	50	97.96	1.52	0.52	78.00	4.00	18.00
573	59603	CACTUS AVE	22,300	40	50	98.15	1.43	0.42	78.00	4.00	18.00
574	59605	PERRIS BLVD	41,593	45	50	97.84	1.44	0.72	78.00	4.00	18.00
575	59606	GENTIAN AVE	4,261	45	50	98.54	1.34	0.12	78.00	4.00	18.00
576	59607	COTTONWOOD AVE	5,938	45	50	98.50	1.11	0.39	78.00	4.00	18.00
577	59608	PERRIS BLVD	36,473	40	50	97.71	1.42	0.87	78.00	4.00	18.00
578	59609	IRONWOOD AVE	8,186	40	50	96.01	1.54	2.45	78.00	4.00	18.00
579	59610	INDIAN ST	4,070	35	50	98.59	1.20	0.21	78.00	4.00	18.00
580	59611	PERRIS BLVD	29,338	40	50	97.24	1.61	1.15	78.00	4.00	18.00
581	59612	DRACAEA AVE	2,395	35	50	98.53	1.15	0.32	78.00	4.00	18.00
582	59613	HEACOCK ST	16,239	50	50	96.75	1.96	1.29	78.00	4.00	18.00
583	59614	COTTONWOOD AVE	7,086	45	50	98.32	1.23	0.45	78.00	4.00	18.00
584	59615	LOCUST AVE	8,437	40	50	96.37	2.41	1.22	78.00	4.00	18.00
585	59616	PERRIS BLVD	36,141	40	50	97.59	1.45	0.96	78.00	4.00	18.00
586	59618	SUNNYMEAD BLVD	10,779	35	50	97.70	1.29	1.01	78.00	4.00	18.00
587	59620	PERRIS BLVD	36,704	40	50	97.54	1.46	1.00	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

588	59621	EUCALYPTUS AVE	12,966	40	50	95.36	1.96	2.68	78.00	4.00	18.00
589	59622	INDIAN ST	3,324	35	50	98.53	1.17	0.30	78.00	4.00	18.00
590	59623	DRACAEA AVE	3,765	35	50	98.68	1.03	0.29	78.00	4.00	18.00
591	59624	ALESSANDRO BLVD	19,389	45	50	96.51	1.96	1.53	78.00	4.00	18.00
592	59628	RECHE VISTA DR	16,690	50	50	96.37	2.24	1.39	78.00	4.00	18.00
593	59630	LAKE VISTA RD	2,956	25	50	98.63	1.26	0.11	78.00	4.00	18.00
594	59631	HIDDEN SPRINGS DR	9,888	35	50	98.46	1.36	0.18	78.00	4.00	18.00
595	60043	GILMAN SPRINGS RD	46,400	55	50	95.66	1.97	2.37	78.00	4.00	18.00
596	60044	GILMAN SPRINGS RD	46,400	55	50	95.74	2.04	2.22	78.00	4.00	18.00
597	60046	GILMAN SPRINGS RD	46,400	55	50	95.83	1.99	2.18	78.00	4.00	18.00
598	60047	JACK RABBIT TRL	11,218	45	50	96.08	1.99	1.93	78.00	4.00	18.00
599	60115	MORENO BEACH DR	13,584	50	50	95.78	2.38	1.84	78.00	4.00	18.00
600	60131	PERRIS BLVD	4,438	50	50	97.27	2.05	0.68	78.00	4.00	18.00
601	60132	CANYON SPRINGS PKY	741	40	50	97.64	1.57	0.79	78.00	4.00	18.00
602	60133	ALESSANDRO BLVD	5,059	50	50	98.22	1.25	0.53	78.00	4.00	18.00
603	60134	CORPORATE CENTRE PL	71	40	50	94.75	2.34	2.91	78.00	4.00	18.00
604	60136	CACTUS AVE	10,900	50	50	97.04	2.03	0.93	78.00	4.00	18.00
605	60142	EUCALYPTUS AVE	8,746	40	50	92.55	3.40	4.05	78.00	4.00	18.00
606	60143	EUCALYPTUS AVE	6,966	40	50	91.61	3.70	4.69	78.00	4.00	18.00
607	60146	QUINCY ST	1,899	45	50	98.56	1.15	0.29	78.00	4.00	18.00
608	60147	RECHE VISTA DR	16,690	50	50	96.37	2.24	1.39	78.00	4.00	18.00
609	60148	EUCALYPTUS AVE	31,600	40	50	80.00	9.50	10.50	78.00	4.00	18.00
610	60149	GILMAN SPRINGS RD	40,700	55	50	95.52	2.12	2.36	78.00	4.00	18.00
611	60150	STREET E	14,300	45	50	80.00	17.80	2.20	78.00	4.00	18.00
612	60151	ALESSANDRO BLVD	4,216	40	50	96.49	2.09	1.42	78.00	4.00	18.00
613	60152	ALESSANDRO BLVD	2,492	40	50	94.54	3.15	2.31	78.00	4.00	18.00
614	60155	GILMAN SPRINGS RD	46,400	55	50	95.74	2.04	2.22	78.00	4.00	18.00
615	60173	STREET F	5,100	45	50	80.00	17.80	2.20	78.00	4.00	18.00
616	60491	IRONWOOD AVE	12,449	45	50	96.68	1.40	1.92	78.00	4.00	18.00
617	61193	GRAEBER ST	15,444	25	50	98.17	1.22	0.61	78.00	4.00	18.00
618	61273	JOHN F KENNEDY DR	14,123	50	50	92.85	3.81	3.34	78.00	4.00	18.00
619	61547	PIGEON PASS RD	928	45	50	97.49	1.98	0.53	78.00	4.00	18.00
620	61550	PIGEON PASS RD	928	45	50	97.49	1.98	0.53	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040  
**Assessment Metric:** Hard

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Hard				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	3490	CACTUS AVE	76.9	69.4	73.6	79.0	126	397	1,256	3,972	12,559	39,716
2	7726	DAY ST	69.2	61.6	67.3	71.8	24	76	239	757	2,393	7,568
3	7889	ENCELIA AVE	61.4	59.7	65.3	67.6	9	29	91	288	910	2,877
4	9102	PIGEON PASS RD	71.2	62.4	64.8	72.6	29	91	288	910	2,877	9,099
5	11519	CACTUS AVE	76.9	68.5	72.3	78.7	117	371	1,172	3,707	11,721	37,066
6	11520	CACTUS AVE	76.9	68.8	73.2	78.9	123	388	1,227	3,881	12,274	38,812
7	11522	PIGEON PASS RD	71.3	62.5	65.0	72.6	29	91	288	910	2,877	9,099
8	11523	FREDERICK ST	71.5	62.8	65.9	73.0	32	100	315	998	3,155	9,976
9	11524	SUNNYMEAD BLVD	67.0	58.6	63.6	69.0	13	40	126	397	1,256	3,972
10	11525	FREDERICK ST	72.1	63.5	67.1	73.7	37	117	371	1,172	3,707	11,721
11	11526	HEMLOCK AVE	62.3	54.5	54.4	63.5	4	11	35	112	354	1,119
12	11529	E ALESSANDRO BLVD	75.5	67.2	71.9	77.5	89	281	889	2,812	8,891	28,117
13	11530	E ALESSANDRO BLVD	75.5	67.2	71.9	77.5	89	281	889	2,812	8,891	28,117
14	11532	DAY ST	70.4	63.5	69.6	73.5	35	112	354	1,119	3,540	11,194
15	11533	DAY ST	70.1	63.5	69.0	73.1	32	102	323	1,021	3,228	10,209
16	11534	DAY ST	69.2	61.6	67.3	71.8	24	76	239	757	2,393	7,568
17	11535	DAY ST	67.6	58.6	60.6	68.8	12	38	120	379	1,199	3,793
18	11543	NASON ST	68.7	59.9	65.4	70.7	19	59	186	587	1,858	5,874
19	11544	NASON ST	62.8	52.1	51.9	63.4	3	11	35	109	346	1,094
20	11545	NASON ST	68.2	59.4	65.3	70.3	17	54	169	536	1,694	5,358
21	11547	SUNNYMEAD BLVD	69.9	60.4	63.4	71.2	21	66	208	659	2,084	6,591
22	11548	SUNNYMEAD BLVD	69.1	58.9	61.2	70.1	16	51	162	512	1,618	5,116
23	11550	SUNNYMEAD BLVD	68.9	60.4	64.9	70.8	19	60	190	601	1,901	6,011
24	11551	SUNNYMEAD BLVD	65.2	56.1	60.2	66.7	7	23	74	234	740	2,339
25	11594	THEODORE AVE	71.3	69.0	75.0	77.2	83	262	830	2,624	8,298	26,240
26	11595	THEODORE AVE	61.6	53.0	55.9	63.0	3	10	32	100	315	998
27	11598	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
28	11618	MORENO BEACH DR	71.5	64.6	70.9	74.7	47	148	467	1,476	4,666	14,756
29	11619	MORENO BEACH DR	68.5	60.3	63.2	70.1	16	51	162	512	1,618	5,116
30	11620	MORENO BEACH DR	67.8	61.3	67.0	70.9	19	62	195	615	1,945	6,151
31	11628	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
32	11629	REDLANDS BLVD	71.1	65.7	69.0	73.9	39	123	388	1,227	3,881	12,274
33	11630	REDLANDS BLVD	69.5	62.8	70.1	73.2	33	104	330	1,045	3,303	10,446
34	27569	ALESSANDRO BLVD	53.5	39.0	37.7	53.8	0	1	4	12	38	120
35	27588	IRONWOOD AVE	57.8	42.1	46.2	58.2	1	3	10	33	104	330
36	27732	MORENO BEACH DR	69.1	59.3	62.8	70.4	17	55	173	548	1,734	5,482
37	27733	MORENO BEACH DR	70.9	60.6	63.2	71.9	24	77	245	774	2,449	7,744
38	27734	CACTUS AVE	70.8	61.4	62.1	71.8	24	76	239	757	2,393	7,568

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

39	27735	MORENO BEACH DR	73.2	65.8	69.5	75.2	52	166	524	1,656	5,236	16,557
40	27736	JOHN F KENNEDY DR	70.7	64.3	68.4	73.3	34	107	338	1,069	3,380	10,690
41	27783	MORENO BEACH DR	70.3	61.8	65.0	71.9	24	77	245	774	2,449	7,744
42	27784	ALESSANDRO BLVD	62.7	55.0	58.1	64.5	4	14	45	141	446	1,409
43	27785	ALESSANDRO BLVD	69.3	60.9	63.7	70.8	19	60	190	601	1,901	6,011
44	27786	MORENO BEACH DR	66.0	55.5	59.3	67.2	8	26	83	262	830	2,624
45	27787	COTTONWOOD AVE	68.2	60.8	63.8	70.1	16	51	162	512	1,618	5,116
46	27788	COTTONWOOD AVE	61.6	52.8	56.1	63.1	3	10	32	102	323	1,021
47	27805	IRONWOOD AVE	66.9	54.5	58.7	67.7	9	29	93	294	931	2,944
48	27806	IRONWOOD AVE	66.6	57.2	61.1	68.0	10	32	100	315	998	3,155
49	27862	REDLANDS BLVD	71.0	65.7	68.9	73.8	38	120	379	1,199	3,793	11,994
50	27863	REDLANDS BLVD	70.8	65.5	68.8	73.6	36	115	362	1,145	3,622	11,454
51	27864	REDLANDS BLVD	70.5	63.7	71.0	74.2	42	132	416	1,315	4,159	13,151
52	27865	REDLANDS BLVD	70.5	63.7	71.0	74.2	42	132	416	1,315	4,159	13,151
53	28114	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
54	28136	GILMAN SPRINGS RD	77.1	67.3	71.7	78.5	112	354	1,119	3,540	11,194	35,397
55	28170	IRONWOOD AVE	65.6	56.5	60.4	67.2	8	26	83	262	830	2,624
56	28181	NASON ST	70.4	62.1	67.0	72.5	28	89	281	889	2,812	8,891
57	28182	EUCALYPTUS AVE	67.8	60.3	65.9	70.4	17	55	173	548	1,734	5,482
58	28183	NASON ST	70.1	61.8	66.6	72.1	26	81	256	811	2,564	8,109
59	28184	COTTONWOOD AVE	61.8	52.3	51.1	62.6	3	9	29	91	288	910
60	28191	ALESSANDRO BLVD	72.5	63.4	66.5	73.9	39	123	388	1,227	3,881	12,274
61	28198	LASSELLE ST	66.2	55.9	57.7	67.1	8	26	81	256	811	2,564
62	28199	LASSELLE ST	66.4	56.0	57.2	67.3	8	27	85	269	849	2,685
63	28200	COTTONWOOD AVE	64.5	53.3	51.8	65.1	5	16	51	162	512	1,618
64	28203	LASSELLE ST	69.6	58.3	58.5	70.2	17	52	166	524	1,656	5,236
65	28204	LASSELLE ST	71.0	59.9	58.8	71.5	22	71	223	706	2,233	7,063
66	28205	GENTIAN AVE	65.1	54.7	48.7	65.6	6	18	57	182	574	1,815
67	28206	EUCALYPTUS AVE	67.9	60.0	66.0	70.5	18	56	177	561	1,774	5,610
68	28207	EUCALYPTUS AVE	69.2	60.9	66.6	71.5	22	71	223	706	2,233	7,063
69	28208	LASSELLE ST	68.6	57.4	56.1	69.1	13	41	129	406	1,285	4,064
70	28209	ALESSANDRO BLVD	71.0	62.3	65.6	72.6	29	91	288	910	2,877	9,099
71	28210	LASSELLE ST	69.8	59.1	58.2	70.5	18	56	177	561	1,774	5,610
72	28211	JOHN F KENNEDY DR	68.6	58.0	58.3	69.3	13	43	135	426	1,346	4,256
73	28212	COTTONWOOD AVE	65.1	53.8	52.4	65.6	6	18	57	182	574	1,815
74	28213	IRONWOOD AVE	67.9	58.4	61.0	69.1	13	41	129	406	1,285	4,064
75	28254	LASSELLE ST	72.7	63.2	66.2	73.9	39	123	388	1,227	3,881	12,274
76	28255	IRIS AVE	71.9	64.3	68.2	73.9	39	123	388	1,227	3,881	12,274
77	28256	KRAMERIA AVE	61.9	50.3	46.5	62.3	3	8	27	85	269	849
78	28283	LAKE PERRIS DR	68.2	59.8	61.9	69.6	14	46	144	456	1,442	4,560
79	28305	PERRIS BLVD	72.1	62.3	64.2	73.1	32	102	323	1,021	3,228	10,209
80	28306	MANZANITA AVE	60.0	50.0	50.1	60.8	2	6	19	60	190	601
81	28307	PERRIS BLVD	72.1	62.4	64.4	73.1	32	102	323	1,021	3,228	10,209
82	28320	PERRIS BLVD	72.3	62.4	64.2	73.3	34	107	338	1,069	3,380	10,690
83	28334	MANZANITA AVE	59.7	49.9	50.0	60.6	2	6	18	57	182	574
84	28335	SUNNYMEAD RANCH PKY	66.6	55.9	54.2	67.2	8	26	83	262	830	2,624
85	28342	PERRIS BLVD	72.8	63.2	65.8	74.0	40	126	397	1,256	3,972	12,559
86	28343	PERRIS BLVD	72.1	62.7	65.8	73.4	35	109	346	1,094	3,459	10,939
87	28344	EUCALYPTUS AVE	67.9	59.8	65.7	70.3	17	54	169	536	1,694	5,358

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

88	28345	EUCALYPTUS AVE	67.5	59.6	65.7	70.1	16	51	162	512	1,618	5,116
89	28347	N PERRIS BLVD	74.7	65.9	68.6	76.1	64	204	644	2,037	6,441	20,369
90	28348	NANDINA AVE	55.3	47.7	49.6	56.9	1	2	8	24	77	245
91	28349	PERRIS BLVD	72.4	62.8	65.4	73.6	36	115	362	1,145	3,622	11,454
92	28350	COTTONWOOD AVE	66.5	55.7	55.9	67.2	8	26	83	262	830	2,624
93	28351	COTTONWOOD AVE	65.9	54.5	53.8	66.4	7	22	69	218	690	2,183
94	28354	PERRIS BLVD	72.1	62.8	66.0	73.5	35	112	354	1,119	3,540	11,194
95	28360	PERRIS BLVD	74.6	65.7	68.5	76.0	63	199	629	1,991	6,295	19,905
96	28361	KRAMERIA AVE	67.3	59.7	62.6	69.1	13	41	129	406	1,285	4,064
97	28362	PERRIS BLVD	73.3	64.2	67.2	74.7	47	148	467	1,476	4,666	14,756
98	28363	PERRIS BLVD	72.7	63.6	66.4	74.1	41	129	406	1,285	4,064	12,852
99	28364	PERRIS BLVD	73.7	63.7	64.8	74.6	46	144	456	1,442	4,560	14,420
100	28365	IRIS AVE	70.5	62.7	66.8	72.5	28	89	281	889	2,812	8,891
101	28366	IRIS AVE	64.9	56.2	58.1	66.1	6	20	64	204	644	2,037
102	28373	COTTONWOOD AVE	58.3	50.1	49.2	59.3	1	4	13	43	135	426
103	28383	PERRIS BLVD	73.0	63.5	65.5	74.1	41	129	406	1,285	4,064	12,852
104	28384	JOHN F KENNEDY DR	69.6	59.0	59.6	70.3	17	54	169	536	1,694	5,358
105	28385	JOHN F KENNEDY DR	69.2	59.1	60.9	70.2	17	52	166	524	1,656	5,236
106	28386	PERRIS BLVD	72.1	62.6	65.2	73.3	34	107	338	1,069	3,380	10,690
107	28387	CACTUS AVE	70.0	60.8	59.4	70.8	19	60	190	601	1,901	6,011
108	28388	CACTUS AVE	70.0	60.8	61.2	71.0	20	63	199	629	1,991	6,295
109	28389	ALESSANDRO BLVD	71.9	62.8	65.8	73.3	34	107	338	1,069	3,380	10,690
110	28390	ALESSANDRO BLVD	72.1	62.5	65.6	73.3	34	107	338	1,069	3,380	10,690
111	28393	IRONWOOD AVE	65.6	56.6	63.4	68.0	10	32	100	315	998	3,155
112	28396	KITCHING ST	62.5	51.3	45.3	62.9	3	10	31	97	308	975
113	28397	IRIS AVE	71.9	64.3	68.2	73.9	39	123	388	1,227	3,881	12,274
114	28399	KITCHING ST	64.4	54.2	48.2	64.9	5	15	49	155	489	1,545
115	28400	ALESSANDRO BLVD	72.1	62.5	65.6	73.3	34	107	338	1,069	3,380	10,690
116	28401	KITCHING ST	62.2	51.9	46.5	62.7	3	9	29	93	294	931
117	28402	KITCHING ST	55.6	43.4	39.0	56.0	1	2	6	20	63	199
118	28424	KITCHING ST	63.6	52.8	53.6	64.3	4	13	43	135	426	1,346
119	28425	KITCHING ST	63.1	51.3	48.9	63.5	4	11	35	112	354	1,119
120	28426	COTTONWOOD AVE	65.3	54.8	53.2	65.9	6	19	62	195	615	1,945
121	28446	HEACOCK ST	68.8	58.8	59.8	69.7	15	47	148	467	1,476	4,666
122	28447	HEACOCK ST	68.4	58.5	59.4	69.3	13	43	135	426	1,346	4,256
123	28448	COTTONWOOD AVE	67.5	56.7	56.9	68.2	10	33	104	330	1,045	3,303
124	28449	COTTONWOOD AVE	68.6	57.7	58.8	69.3	13	43	135	426	1,346	4,256
125	28450	HEACOCK ST	71.1	60.8	60.6	71.8	24	76	239	757	2,393	7,568
126	28451	IRONWOOD AVE	65.8	56.5	63.4	68.1	10	32	102	323	1,021	3,228
127	28452	IRONWOOD AVE	67.3	57.8	60.6	68.5	11	35	112	354	1,119	3,540
128	28453	HEACOCK ST	67.5	58.6	59.5	68.6	11	36	115	362	1,145	3,622
129	28454	HEACOCK ST	66.9	58.1	59.6	68.1	10	32	102	323	1,021	3,228
130	28455	EUCALYPTUS AVE	66.5	59.8	65.8	69.7	15	47	148	467	1,476	4,666
131	28458	HEACOCK ST	67.7	59.0	63.4	69.5	14	45	141	446	1,409	4,456
132	28459	SUNNYMEAD BLVD	66.1	56.7	60.6	67.5	9	28	89	281	889	2,812
133	28460	SUNNYMEAD BLVD	67.0	58.4	62.9	68.9	12	39	123	388	1,227	3,881
134	28461	HEACOCK ST	67.9	59.2	61.9	69.3	13	43	135	426	1,346	4,256
135	28462	HEACOCK ST	68.1	59.4	61.1	69.4	14	44	138	435	1,377	4,355
136	28463	HEACOCK ST	71.5	62.3	64.6	72.7	29	93	294	931	2,944	9,310

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

137	28464	HEACOCK ST	72.9	63.8	67.3	74.4	44	138	435	1,377	4,355	13,771
138	28465	ALESSANDRO BLVD	72.4	62.9	66.2	73.7	37	117	371	1,172	3,707	11,721
139	28466	ALESSANDRO BLVD	72.4	62.9	66.3	73.7	37	117	371	1,172	3,707	11,721
140	28467	IRONWOOD AVE	65.6	56.5	60.4	67.2	8	26	83	262	830	2,624
141	28468	MANZANITA AVE	59.6	47.8	39.4	59.9	2	5	15	49	155	489
142	28469	HEACOCK ST	66.1	56.8	55.8	66.9	8	24	77	245	774	2,449
143	28470	SUNNYMEAD RANCH PKY	67.0	57.3	56.8	67.8	10	30	95	301	953	3,013
144	28471	HEACOCK ST	72.2	63.6	66.6	73.7	37	117	371	1,172	3,707	11,721
145	28472	MEYER ST	68.8	58.0	59.6	69.6	14	46	144	456	1,442	4,560
146	28473	N WEBSTER AVE	72.0	63.4	65.9	73.4	35	109	346	1,094	3,459	10,939
147	28482	HEACOCK ST	72.5	63.9	67.3	74.1	41	129	406	1,285	4,064	12,852
148	28483	JOHN F KENNEDY DR	68.9	59.1	61.1	69.9	15	49	155	489	1,545	4,886
149	28489	CACTUS AVE	70.0	60.2	61.8	71.0	20	63	199	629	1,991	6,295
150	28490	CACTUS AVE	76.6	67.4	70.6	78.0	100	315	998	3,155	9,976	31,548
151	28491	INDIAN ST	63.8	54.1	53.5	64.6	5	14	46	144	456	1,442
152	28492	INDIAN ST	63.7	54.2	54.0	64.6	5	14	46	144	456	1,442
153	28493	INDIAN ST	64.7	54.2	54.0	65.4	5	17	55	173	548	1,734
154	28494	INDIAN ST	64.1	55.4	52.9	64.9	5	15	49	155	489	1,545
155	28495	INDIAN ST	61.4	51.8	50.8	62.1	3	8	26	81	256	811
156	28496	INDIAN ST	60.3	49.6	48.9	60.9	2	6	19	62	195	615
157	28497	INDIAN ST	64.7	54.6	52.8	65.3	5	17	54	169	536	1,694
158	28507	INDIAN AVE	65.6	55.6	52.8	66.2	7	21	66	208	659	2,084
159	28534	GRAHAM ST	61.5	50.5	49.9	62.1	3	8	26	81	256	811
160	28537	GRAHAM ST	63.9	53.0	51.9	64.5	4	14	45	141	446	1,409
161	28538	GRAHAM ST	65.2	54.5	55.3	65.9	6	19	62	195	615	1,945
162	28539	COTTONWOOD AVE	69.5	58.7	60.0	70.3	17	54	169	536	1,694	5,358
163	28540	EUCALYPTUS AVE	66.4	59.7	65.9	69.6	14	46	144	456	1,442	4,560
164	28541	GRAHAM ST	65.3	56.5	58.4	66.6	7	23	72	229	723	2,285
165	28542	ALESSANDRO BLVD	72.1	62.4	66.2	73.5	35	112	354	1,119	3,540	11,194
166	28551	IRONWOOD AVE	65.1	56.2	63.5	67.7	9	29	93	294	931	2,944
167	28553	MEYER ST	68.8	58.0	59.6	69.6	14	46	144	456	1,442	4,560
168	28558	RIVERSIDE DR	57.3	49.4	54.3	59.5	1	4	14	45	141	446
169	28559	CACTUS AVE	76.6	67.6	70.9	78.0	100	315	998	3,155	9,976	31,548
170	28674	ELSWORTH ST	64.3	55.2	56.3	65.4	5	17	55	173	548	1,734
171	28675	EUCALYPTUS AVE	69.3	62.1	66.7	71.7	23	74	234	740	2,339	7,396
172	28676	EUCALYPTUS AVE	67.0	60.6	66.4	70.2	17	52	166	524	1,656	5,236
173	28678	ELSWORTH ST	64.0	55.5	57.3	65.3	5	17	54	169	536	1,694
174	28679	COTTONWOOD AVE	62.6	51.0	52.4	63.2	3	10	33	104	330	1,045
175	28680	COTTONWOOD AVE	65.8	55.8	56.5	66.6	7	23	72	229	723	2,285
176	28685	ELSWORTH ST	63.8	54.8	55.8	64.9	5	15	49	155	489	1,545
177	28686	ALESSANDRO BLVD	71.8	62.4	66.8	73.3	34	107	338	1,069	3,380	10,690
178	28687	ALESSANDRO BLVD	72.4	63.4	68.9	74.4	44	138	435	1,377	4,355	13,771
179	28688	ELSWORTH ST	66.0	56.6	58.8	67.1	8	26	81	256	811	2,564
180	28689	CACTUS AVE	76.6	67.6	71.0	78.0	100	315	998	3,155	9,976	31,548
181	28692	MEMORIAL WAY	65.5	54.1	54.5	66.1	6	20	64	204	644	2,037
182	28693	EUCALYPTUS AVE	69.6	63.9	68.6	72.8	30	95	301	953	3,013	9,527
183	28703	TOWN CIR	57.7	47.8	46.9	58.5	1	4	11	35	112	354
184	28729	PIGEON PASS RD	71.9	61.5	60.6	72.6	29	91	288	910	2,877	9,099
185	28730	PIGEON PASS RD	69.9	60.3	60.4	70.7	19	59	186	587	1,858	5,874

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

186	28731	IRONWOOD AVE	69.0	60.6	65.5	71.0	20	63	199	629	1,991	6,295
187	28732	FREDERICK ST	71.5	63.0	66.8	73.2	33	104	330	1,045	3,303	10,446
188	28733	CENTERPOINT DR	65.3	55.3	57.5	66.3	7	21	67	213	674	2,133
189	28737	PIGEON PASS RD	69.8	59.4	59.2	70.5	18	56	177	561	1,774	5,610
190	28738	PIGEON PASS RD	60.8	50.7	54.1	62.0	3	8	25	79	251	792
191	28739	PIGEON PASS RD	70.8	60.4	59.7	71.5	22	71	223	706	2,233	7,063
192	28740	FREDERICK ST	67.6	56.1	59.6	68.5	11	35	112	354	1,119	3,540
193	28742	PIGEON PASS RD	62.9	53.4	55.7	64.1	4	13	41	129	406	1,285
194	28743	FREDERICK ST	69.3	58.9	61.5	70.3	17	54	169	536	1,694	5,358
195	28744	FREDERICK ST	67.6	56.6	59.5	68.5	11	35	112	354	1,119	3,540
196	28751	FREDERICK ST	62.8	52.7	53.1	63.6	4	11	36	115	362	1,145
197	28760	PIGEON PASS RD	60.0	50.6	49.8	60.8	2	6	19	60	190	601
198	28775	EUCALYPTUS AVE	70.5	65.8	70.7	74.3	43	135	426	1,346	4,256	13,458
199	28776	EUCALYPTUS AVE	71.0	66.0	70.9	74.6	46	144	456	1,442	4,560	14,420
200	28781	ALESSANDRO BLVD	75.0	66.7	71.6	77.1	81	256	811	2,564	8,109	25,643
201	28789	E ALESSANDRO BLVD	76.1	67.9	72.4	78.1	102	323	1,021	3,228	10,209	32,283
202	28808	CACTUS AVE	76.9	69.4	73.6	79.0	126	397	1,256	3,972	12,559	39,716
203	28815	DAY ST	68.4	61.2	65.9	70.9	19	62	195	615	1,945	6,151
204	28816	DAY ST	69.2	63.3	68.9	72.6	29	91	288	910	2,877	9,099
205	28817	DAY ST	64.9	59.4	66.2	69.1	13	41	129	406	1,285	4,064
206	28823	BOX SPRINGS RD	69.7	60.0	65.5	71.5	22	71	223	706	2,233	7,063
207	28829	BOX SPRINGS RD	70.6	62.1	66.6	72.5	28	89	281	889	2,812	8,891
208	32731	BOX SPRINGS RD	70.8	62.3	66.7	72.7	29	93	294	931	2,944	9,310
209	34467	E ALESSANDRO BLVD	75.4	67.1	71.7	77.3	85	269	849	2,685	8,491	26,852
210	34564	HEMLOCK AVE	64.7	58.3	63.0	67.5	9	28	89	281	889	2,812
211	36199	IRONWOOD AVE	64.9	56.1	63.4	67.6	9	29	91	288	910	2,877
212	36202	PERRIS BLVD	72.1	63.2	66.3	73.6	36	115	362	1,145	3,622	11,454
213	36241	GILMAN SPRINGS RD	76.4	66.9	72.9	78.4	109	346	1,094	3,459	10,939	34,592
214	36242	GILMAN SPRINGS RD	77.1	67.2	71.5	78.5	112	354	1,119	3,540	11,194	35,397
215	36243	GILMAN SPRINGS RD	77.1	67.4	71.7	78.5	112	354	1,119	3,540	11,194	35,397
216	36244	GILMAN SPRINGS RD	77.1	67.3	72.0	78.6	115	362	1,145	3,622	11,454	36,222
217	36245	JACK RABBIT TRL	68.4	59.8	64.2	70.2	17	52	166	524	1,656	5,236
218	36246	ALESSANDRO BLVD	66.3	55.0	55.5	66.9	8	24	77	245	774	2,449
219	36247	REDLANDS BLVD	73.0	66.7	69.6	75.3	54	169	536	1,694	5,358	16,942
220	36248	VIA DEL LAGO	66.9	58.8	61.2	68.5	11	35	112	354	1,119	3,540
221	36249	IRIS AVE	75.0	66.7	70.4	76.7	74	234	740	2,339	7,396	23,387
222	36930	IRIS AVE	72.4	65.0	68.9	74.5	45	141	446	1,409	4,456	14,092
223	37189	MORENO BEACH DR	68.5	60.1	61.3	69.7	15	47	148	467	1,476	4,666
224	37192	ELSWORTH ST	63.8	54.8	55.8	64.9	5	15	49	155	489	1,545
225	41042	HIDDEN SPRINGS DR	52.1	42.0	33.9	52.5	0	1	3	9	28	89
226	41043	DRACAEA AVE	52.2	42.0	40.2	52.9	0	1	3	10	31	97
227	41044	DRACAEA AVE	58.8	48.2	48.7	59.6	1	5	14	46	144	456
228	41045	DRACAEA AVE	59.9	49.4	49.0	60.6	2	6	18	57	182	574
229	41046	DRACAEA AVE	60.6	50.5	50.2	61.4	2	7	22	69	218	690
230	41047	DRACAEA AVE	58.7	49.0	48.7	59.5	1	4	14	45	141	446
231	41048	DRACAEA AVE	62.4	52.7	53.5	63.3	3	11	34	107	338	1,069
232	41049	KITCHING ST	65.5	55.0	56.0	66.3	7	21	67	213	674	2,133
233	41050	LASSELLE ST	66.3	56.5	59.1	67.5	9	28	89	281	889	2,812
234	41051	PERRIS BLVD	72.6	63.1	65.8	73.8	38	120	379	1,199	3,793	11,994

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

235	41052	INDIAN ST	61.8	52.4	51.7	62.7	3	9	29	93	294	931
236	41053	HEACOCK ST	68.5	58.6	59.7	69.4	14	44	138	435	1,377	4,355
237	41054	GRAHAM ST	62.7	51.9	49.5	63.2	3	10	33	104	330	1,045
238	41055	FREDERICK ST	69.6	59.2	61.6	70.5	18	56	177	561	1,774	5,610
239	41056	RECHE VISTA DR	71.5	62.8	64.9	72.8	30	95	301	953	3,013	9,527
240	41057	VIA DEL LAGO	63.4	0.0	0.0	63.4	3	11	35	109	346	1,094
241	41059	ALTA CALLE	66.9	58.8	61.2	68.5	11	35	112	354	1,119	3,540
242	41060	ALTA CALLE	65.4	56.9	60.5	67.1	8	26	81	256	811	2,564
243	41061	ALTA CALLE	65.9	57.7	61.2	67.6	9	29	91	288	910	2,877
244	41062	LAKE PERRIS DR	66.2	58.7	61.4	68.0	10	32	100	315	998	3,155
245	41064	LAKE PERRIS DR	63.6	56.0	59.9	65.6	6	18	57	182	574	1,815
246	41065	EVANS RD	72.6	63.1	66.1	73.8	38	120	379	1,199	3,793	11,994
247	41066	LASSELLE ST	72.6	63.1	66.1	73.8	38	120	379	1,199	3,793	11,994
248	41067	VIA DEL LAGO	64.6	0.0	0.0	64.6	5	14	46	144	456	1,442
249	41068	LAKE PERRIS DR	62.8	55.2	59.0	64.8	5	15	48	151	477	1,510
250	41069	TOWNGATE AVE	69.2	62.1	65.8	71.4	22	69	218	690	2,183	6,902
251	41070	TOWNGATE AVE	69.2	62.1	65.8	71.4	22	69	218	690	2,183	6,902
252	41071	OLD 215 FRONTAGE RD	69.4	60.9	62.9	70.8	19	60	190	601	1,901	6,011
253	41072	OLD 215 FRONTAGE RD	67.6	58.4	61.3	68.9	12	39	123	388	1,227	3,881
254	41073	COTTONWOOD AVE	61.1	54.7	56.7	63.1	3	10	32	102	323	1,021
255	44344	SUNNYMEAD RANCH PKY	63.2	53.3	51.6	63.9	4	12	39	123	388	1,227
256	44345	OLD LAKE DR	66.9	57.2	56.2	67.7	9	29	93	294	931	2,944
257	44346	SUNNYMEAD RANCH PKY	59.2	49.3	50.2	60.1	2	5	16	51	162	512
258	44347	LAKE VISTA RD	54.8	47.9	45.9	56.0	1	2	6	20	63	199
259	44348	HEACOCK ST	64.4	55.9	55.6	65.5	6	18	56	177	561	1,774
260	44355	COTTONWOOD AVE	62.0	50.9	50.3	62.6	3	9	29	91	288	910
261	44356	MORRISON ST	60.4	50.4	45.3	60.9	2	6	19	62	195	615
262	44357	CANYON SPRINGS PKY	59.7	52.8	55.9	61.8	2	8	24	76	239	757
263	44358	MEMORIAL WAY	63.5	51.5	49.3	63.9	4	12	39	123	388	1,227
264	44359	GATEWAY DR	61.6	49.7	52.3	62.3	3	8	27	85	269	849
265	44360	LASSELLE ST	72.6	63.1	66.1	73.8	38	120	379	1,199	3,793	11,994
266	44361	KRAMERIA AVE	62.0	50.3	46.6	62.4	3	9	27	87	275	869
267	44362	KRAMERIA AVE	61.9	50.3	46.5	62.3	3	8	27	85	269	849
268	44464	ALESSANDRO BLVD	73.9	65.0	70.2	75.8	60	190	601	1,901	6,011	19,009
269	44465	N PERRIS BLVD	74.7	65.9	68.5	76.1	64	204	644	2,037	6,441	20,369
270	44807	GILMAN SPRINGS RD	77.1	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
271	44812	TOWN CIR	56.7	37.3	47.6	57.3	1	3	8	27	85	269
272	44813	TOWN CIR	52.9	37.5	47.6	54.1	0	1	4	13	41	129
273	44814	TOWN CIR	56.7	37.3	47.6	57.3	1	3	8	27	85	269
274	44816	TOWN CIR	55.9	44.7	46.6	56.7	1	2	7	23	74	234
275	44823	LASSELLE ST	72.8	63.2	66.0	74.0	40	126	397	1,256	3,972	12,559
276	44826	CACTUS AVE	68.9	58.9	58.7	69.7	15	47	148	467	1,476	4,666
277	44827	CACTUS AVE	68.9	58.6	58.5	69.6	14	46	144	456	1,442	4,560
278	44828	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
279	44829	EUCALYPTUS AVE	65.6	60.0	67.1	69.9	15	49	155	489	1,545	4,886
280	44830	KRAMERIA AVE	62.5	57.3	63.4	66.5	7	22	71	223	706	2,233
281	44831	ALESSANDRO BLVD	72.1	63.1	65.9	73.5	35	112	354	1,119	3,540	11,194
282	44832	LASSELLE ST	72.6	63.1	66.1	73.8	38	120	379	1,199	3,793	11,994
283	44833	QUINCY ST	56.9	49.0	47.1	58.0	1	3	10	32	100	315

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

284	44834	COTTONWOOD AVE	65.6	58.8	61.9	67.8	10	30	95	301	953	3,013
285	46116	N PERRIS BLVD	74.7	65.9	68.5	76.1	64	204	644	2,037	6,441	20,369
286	46264	SAN MICHELLE AV	55.3	49.4	51.2	57.5	1	3	9	28	89	281
287	46868	HEACOCK ST	72.7	63.7	67.0	74.1	41	129	406	1,285	4,064	12,852
288	48026	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
289	48027	IRIS AVE	65.3	56.2	58.3	66.5	7	22	71	223	706	2,233
290	48028	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
291	48029	SAN MICHELLE AV	50.0	48.8	45.7	53.3	0	1	3	11	34	107
292	48030	GRAEBER ST	49.8	40.5	45.5	51.5	0	1	2	7	22	71
293	48031	RIVERSIDE DR	62.8	55.2	59.9	65.0	5	16	50	158	500	1,581
294	48294	LASSELLE ST	57.7	47.3	39.9	58.1	1	3	10	32	102	323
295	48295	RECHE CANYON RD	68.7	61.3	64.0	70.5	18	56	177	561	1,774	5,610
296	48346	EUCALYPTUS AVE	69.8	65.0	70.3	73.7	37	117	371	1,172	3,707	11,721
297	48348	INDIAN ST	68.0	60.7	62.9	69.8	15	48	151	477	1,510	4,775
298	48349	INDIAN ST	68.0	60.7	62.9	69.8	15	48	151	477	1,510	4,775
299	48350	NANDINA AVE	30.8	22.0	21.0	31.7	0	0	0	0	0	1
300	48351	INDIAN ST	67.7	60.1	62.5	69.4	14	44	138	435	1,377	4,355
301	48352	INDIAN ST	67.7	60.1	62.5	69.4	14	44	138	435	1,377	4,355
302	48353	LOCUST AVE	65.7	58.6	60.5	67.4	9	27	87	275	869	2,748
303	48358	E OLEANDER AVE	59.0	53.0	55.1	61.2	2	7	21	66	208	659
304	48366	N PERRIS BLVD	74.6	65.8	68.5	76.0	63	199	629	1,991	6,295	19,905
305	51959	HEACOCK ST	71.1	60.5	61.3	71.9	24	77	245	774	2,449	7,744
306	51963	HEACOCK ST	71.1	60.5	61.3	71.9	24	77	245	774	2,449	7,744
307	51964	NASON ST	71.5	62.4	66.6	73.1	32	102	323	1,021	3,228	10,209
308	51965	NASON ST	69.5	60.8	64.7	71.1	20	64	204	644	2,037	6,441
309	52667	REDLANDS BLVD	71.1	65.7	69.0	73.9	39	123	388	1,227	3,881	12,274
310	52670	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
311	52672	MORENO BEACH DR	69.8	61.8	66.2	71.8	24	76	239	757	2,393	7,568
312	52673	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
313	52675	REDLANDS BLVD	72.1	67.9	74.4	77.0	79	251	792	2,506	7,924	25,059
314	52679	GILMAN SPRINGS RD	76.4	66.9	72.9	78.4	109	346	1,094	3,459	10,939	34,592
315	52682	GILMAN SPRINGS RD	76.5	66.5	71.8	78.1	102	323	1,021	3,228	10,209	32,283
316	52714	NASON ST	71.2	61.8	65.2	72.5	28	89	281	889	2,812	8,891
317	52715	NASON ST	66.8	57.4	62.1	68.4	11	35	109	346	1,094	3,459
318	53302	N PERRIS BLVD	73.4	64.7	67.2	74.8	48	151	477	1,510	4,775	15,100
319	53307	INDIAN ST	68.7	59.4	60.2	69.7	15	47	148	467	1,476	4,666
320	53313	OLD I-215 FRONTAGE RD	71.4	63.7	66.5	73.1	32	102	323	1,021	3,228	10,209
321	53490	HEACOCK ST	66.9	58.0	60.8	68.2	10	33	104	330	1,045	3,303
322	53491	PERRIS BLVD	72.1	62.8	66.0	73.5	35	112	354	1,119	3,540	11,194
323	53492	REDLANDS BLVD	70.8	65.5	68.8	73.6	36	115	362	1,145	3,622	11,454
324	54317	HEMLOCK AVE	57.6	49.3	49.4	58.7	1	4	12	37	117	371
325	54318	GRAHAM ST	65.1	55.5	52.9	65.8	6	19	60	190	601	1,901
326	54744	DAY ST	70.3	63.4	69.6	73.4	35	109	346	1,094	3,459	10,939
327	56560	PIGEON PASS RD	57.6	49.0	47.7	58.6	1	4	11	36	115	362
328	56965	N WEBSTER AVE	72.2	63.6	66.6	73.7	37	117	371	1,172	3,707	11,721
329	56967	INDIAN ST	68.7	59.4	60.2	69.7	15	47	148	467	1,476	4,666
330	56969	N PERRIS BLVD	73.4	64.7	67.2	74.8	48	151	477	1,510	4,775	15,100
331	56974	GATEWAY DR	61.6	49.7	52.3	62.3	3	8	27	85	269	849
332	56976	RECHE CANYON RD	45.5	0.0	30.7	45.7	0	0	1	2	6	19

**FHWA RD-77-108**  
**Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

333	56977	INDIAN ST	65.0	55.6	53.4	65.7	6	19	59	186	587	1,858
334	56978	KRAMERIA AVE	48.1	40.1	40.8	49.4	0	0	1	4	14	44
335	56979	HEACOCK ST	71.5	62.0	63.9	72.6	29	91	288	910	2,877	9,099
336	56980	KRAMERIA AVE	44.3	37.9	34.1	45.5	0	0	1	2	6	18
337	56981	EVANS RD	71.6	62.5	65.8	73.0	32	100	315	998	3,155	9,976
338	57031	DAY ST	66.6	59.3	62.9	68.6	11	36	115	362	1,145	3,622
339	57032	OLD I-215 FRONTAGE RD	73.5	65.5	68.3	75.2	52	166	524	1,656	5,236	16,557
340	57033	HEACOCK ST	69.1	59.1	60.5	70.0	16	50	158	500	1,581	5,000
341	57034	INDIAN ST	63.3	53.1	54.3	64.2	4	13	42	132	416	1,315
342	57035	GENTIAN AVE	64.7	54.7	55.1	65.5	6	18	56	177	561	1,774
343	57036	PERRIS BLVD	73.2	63.1	64.7	74.1	41	129	406	1,285	4,064	12,852
344	57037	GENTIAN AVE	66.1	55.7	56.5	66.9	8	24	77	245	774	2,449
345	57038	GENTIAN AVE	66.9	56.8	52.7	67.4	9	27	87	275	869	2,748
346	57041	NASON ST	69.3	60.5	64.6	71.0	20	63	199	629	1,991	6,295
347	57042	IRIS AVE	72.1	65.0	68.8	74.3	43	135	426	1,346	4,256	13,458
348	57043	OLIVER ST	53.0	43.7	37.5	53.6	0	1	4	11	36	115
349	57044	SAN MICHELLE AV	50.0	48.8	45.7	53.3	0	1	3	11	34	107
350	57045	OLIVER ST	60.4	53.3	54.8	62.1	3	8	26	81	256	811
351	57046	CACTUS AVE	69.7	59.2	61.9	70.7	19	59	186	587	1,858	5,874
352	57047	ALESSANDRO BLVD	68.7	60.6	63.4	70.3	17	54	169	536	1,694	5,358
353	57048	OLIVER ST	53.8	44.3	40.2	54.4	0	1	4	14	44	138
354	57049	CACTUS AVE	69.6	61.1	61.1	70.7	19	59	186	587	1,858	5,874
355	57050	JOHN F KENNEDY DR	52.9	40.6	33.5	53.2	0	1	3	10	33	104
356	57051	ALESSANDRO BLVD	60.3	54.5	57.9	63.0	3	10	32	100	315	998
357	57052	CACTUS AVE	70.8	63.0	64.6	72.3	27	85	269	849	2,685	8,491
358	57053	QUINCY ST	55.3	45.8	37.6	55.8	1	2	6	19	60	190
359	57054	COTTONWOOD AVE	62.7	57.6	60.1	65.4	5	17	55	173	548	1,734
360	57055	QUINCY ST	61.6	49.1	45.1	61.9	2	8	24	77	245	774
361	57056	QUINCY ST	61.9	53.6	56.8	63.5	4	11	35	112	354	1,119
362	57057	REDLANDS BLVD	69.5	62.8	70.1	73.2	33	104	330	1,045	3,303	10,446
363	57059	EUCALYPTUS AVE	67.8	61.8	67.6	71.2	21	66	208	659	2,084	6,591
364	57060	PERRIS BLVD	72.7	63.2	65.9	73.9	39	123	388	1,227	3,881	12,274
365	57062	MORRISON ST	49.6	39.0	39.2	50.3	0	1	2	5	17	54
366	57063	ALESSANDRO BLVD	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
367	57064	ALESSANDRO BLVD	67.7	60.2	63.0	69.5	14	45	141	446	1,409	4,456
368	57065	REDLANDS BLVD	70.5	63.7	71.0	74.2	42	132	416	1,315	4,159	13,151
369	57066	CACTUS AVE	67.6	60.3	63.0	69.4	14	44	138	435	1,377	4,355
370	57067	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
371	57068	EUCALYPTUS AVE	70.6	70.3	75.6	77.7	93	294	931	2,944	9,310	29,442
372	57069	REDLANDS BLVD	69.5	62.8	70.1	73.2	33	104	330	1,045	3,303	10,446
373	57071	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
374	57072	GILMAN SPRINGS RD	76.5	67.0	71.4	78.0	100	315	998	3,155	9,976	31,548
375	57073	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
376	57074	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
377	57075	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
378	57076	GRAHAM ST	54.4	44.2	34.2	54.9	0	2	5	15	49	155
379	57077	IRONWOOD AVE	66.8	57.5	60.6	68.1	10	32	102	323	1,021	3,228
380	57078	REDLANDS BLVD	71.6	64.9	72.1	75.3	54	169	536	1,694	5,358	16,942
381	57079	EUCALYPTUS AVE	66.5	66.2	71.3	73.5	35	112	354	1,119	3,540	11,194

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Hard  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

382	57080	THEODORE AVE	73.9	71.5	77.5	79.8	151	477	1,510	4,775	15,100	47,750
383	57081	EUCALYPTUS AVE	66.5	66.2	71.3	73.5	35	112	354	1,119	3,540	11,194
384	57082	EUCALYPTUS AVE	70.6	70.3	75.6	77.7	93	294	931	2,944	9,310	29,442
385	57083	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
386	57084	THEODORE AVE	74.1	71.7	77.7	80.0	158	500	1,581	5,000	15,811	50,000
387	57085	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
388	57086	REDLANDS BLVD	69.5	62.8	70.1	73.2	33	104	330	1,045	3,303	10,446
389	57087	ENCELIA AVE	60.9	60.3	66.1	68.0	10	32	100	315	998	3,155
390	57088	IRONWOOD AVE	62.3	54.0	57.2	63.9	4	12	39	123	388	1,227
391	57089	QUINCY ST	60.4	52.3	55.1	62.0	3	8	25	79	251	792
392	57091	GILMAN SPRINGS RD	77.1	67.2	71.6	78.5	112	354	1,119	3,540	11,194	35,397
393	57093	IRONWOOD AVE	68.3	58.4	61.0	69.4	14	44	138	435	1,377	4,355
394	57095	ELDER AVE	62.2	52.9	51.5	63.0	3	10	32	100	315	998
395	57096	ELDER AVE	62.3	52.7	47.8	62.9	3	10	31	97	308	975
396	57097	LOCUST AVE	65.9	58.7	60.5	67.6	9	29	91	288	910	2,877
397	57098	QUINCY ST	53.2	43.0	41.4	53.9	0	1	4	12	39	123
398	57100	IRONWOOD AVE	57.8	42.1	46.2	58.2	1	3	10	33	104	330
399	57101	ELDER AVE	62.2	52.9	51.5	63.0	3	10	32	100	315	998
400	57127	RECHE VISTA DR	71.5	62.8	64.9	72.8	30	95	301	953	3,013	9,527
401	57222	GILMAN SPRINGS RD	76.5	67.0	71.4	78.0	100	315	998	3,155	9,976	31,548
402	57223	EUCALYPTUS AVE	70.6	70.3	75.6	77.7	93	294	931	2,944	9,310	29,442
403	57282	PIGEON PASS RD	57.6	49.0	47.7	58.6	1	4	11	36	115	362
404	57495	KITCHING ST	67.5	59.3	62.4	69.2	13	42	132	416	1,315	4,159
405	57513	IRONWOOD AVE	69.0	60.6	65.5	71.0	20	63	199	629	1,991	6,295
406	57514	HEACOCK ST	73.7	64.3	67.4	75.0	50	158	500	1,581	5,000	15,811
407	58231	GILMAN SPRINGS RD	76.5	67.1	71.8	78.1	102	323	1,021	3,228	10,209	32,283
408	58345	GILMAN SPRINGS RD	77.1	67.2	71.5	78.5	112	354	1,119	3,540	11,194	35,397
409	58347	CACTUS AVE	67.7	60.2	63.0	69.5	14	45	141	446	1,409	4,456
410	58348	JOHN F KENNEDY DR	69.0	63.8	68.2	72.3	27	85	269	849	2,685	8,491
411	58350	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
412	58351	PIGEON PASS RD	60.2	50.7	49.9	61.0	2	6	20	63	199	629
413	58352	GATEWAY DR	61.6	49.7	52.3	62.3	3	8	27	85	269	849
414	58353	TOWN CIR	65.9	60.5	65.4	69.3	13	43	135	426	1,346	4,256
415	58354	VIA DEL LAGO	67.2	59.0	61.6	68.8	12	38	120	379	1,199	3,793
416	58395	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
417	58396	REDLANDS BLVD	72.8	66.7	69.6	75.2	52	166	524	1,656	5,236	16,557
418	58403	RECHE VISTA DR	71.5	62.8	64.9	72.8	30	95	301	953	3,013	9,527
419	58404	HIGHLAND BLVD	55.2	49.8	52.4	57.8	1	3	10	30	95	301
420	58405	IRONWOOD AVE	40.0	33.0	40.0	43.4	0	0	0	1	3	11
421	58406	THEODORE AVE	58.0	51.4	53.5	60.0	2	5	16	50	158	500
422	58407	QUINCY ST	56.6	49.4	45.4	57.6	1	3	9	29	91	288
423	58408	IRONWOOD AVE	53.5	44.7	56.3	58.3	1	3	11	34	107	338
424	58409	IRONWOOD AVE	62.3	54.0	57.2	63.9	4	12	39	123	388	1,227
425	58411	CACTUS AVE	69.6	60.5	61.3	70.7	19	59	186	587	1,858	5,874
426	58412	GRAEBER ST	64.0	59.2	67.0	69.2	13	42	132	416	1,315	4,159
427	58413	CACTUS AVE	69.6	60.1	60.8	70.6	18	57	182	574	1,815	5,741
428	58414	OLIVER ST	54.7	45.0	38.7	55.2	1	2	5	17	52	166
429	58415	CACTUS AVE	70.8	63.3	63.6	72.1	26	81	256	811	2,564	8,109
430	58416	CACTUS AVE	70.8	62.9	64.3	72.2	26	83	262	830	2,624	8,298

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

431	58417	IRIS AVE	75.0	66.8	70.4	76.8	76	239	757	2,393	7,568	23,932
432	58419	ALTA CALLE	66.9	58.8	61.2	68.5	11	35	112	354	1,119	3,540
433	58420	IRIS AVE	72.1	65.0	68.8	74.3	43	135	426	1,346	4,256	13,458
434	58421	NASON ST	69.3	60.5	64.6	71.0	20	63	199	629	1,991	6,295
435	58422	LAKE PERRIS DR	64.7	57.1	60.9	66.7	7	23	74	234	740	2,339
436	58423	ALTA CALLE	65.4	56.9	60.5	67.1	8	26	81	256	811	2,564
437	58451	EUCALYPTUS AVE	65.6	60.0	67.1	69.9	15	49	155	489	1,545	4,886
438	58452	QUINCY ST	61.6	57.3	60.6	65.0	5	16	50	158	500	1,581
439	58453	EUCALYPTUS AVE	67.8	61.8	67.6	71.2	21	66	208	659	2,084	6,591
440	58454	MORENO BEACH DR	68.4	62.4	67.1	71.4	22	69	218	690	2,183	6,902
441	58455	NASON ST	68.7	59.9	65.4	70.7	19	59	186	587	1,858	5,874
442	58456	COTTONWOOD AVE	58.3	50.1	49.2	59.3	1	4	13	43	135	426
443	58457	IRONWOOD AVE	67.1	57.7	61.2	68.5	11	35	112	354	1,119	3,540
444	58458	NASON ST	60.9	50.4	48.1	61.5	2	7	22	71	223	706
445	58459	MORENO BEACH DR	69.8	61.8	66.2	71.8	24	76	239	757	2,393	7,568
446	58460	NASON ST	70.1	61.8	66.6	72.1	26	81	256	811	2,564	8,109
447	58461	ALESSANDRO BLVD	68.7	60.6	63.4	70.3	17	54	169	536	1,694	5,358
448	58976	IRONWOOD AVE	66.8	57.5	60.6	68.1	10	32	102	323	1,021	3,228
449	58977	IRONWOOD AVE	66.2	56.8	60.5	67.6	9	29	91	288	910	2,877
450	58978	ALESSANDRO BLVD	67.7	60.2	63.0	69.5	14	45	141	446	1,409	4,456
451	58979	PERRIS BLVD	72.1	62.4	64.4	73.1	32	102	323	1,021	3,228	10,209
452	58980	PERRIS BLVD	71.7	61.9	64.2	72.8	30	95	301	953	3,013	9,527
453	58990	PERRIS BLVD	72.1	62.3	64.2	73.1	32	102	323	1,021	3,228	10,209
454	58991	INDIAN AVE	59.4	50.1	49.8	60.3	2	5	17	54	169	536
455	58992	HEACOCK ST	64.4	55.9	55.6	65.5	6	18	56	177	561	1,774
456	58994	SUNNYMEAD RANCH PKY	65.8	54.6	52.1	66.3	7	21	67	213	674	2,133
457	58995	PERRIS BLVD	70.1	61.5	64.3	71.6	23	72	229	723	2,285	7,227
458	58996	ELDER AVE	60.6	51.8	47.3	61.3	2	7	21	67	213	674
459	58997	MORENO BEACH DR	68.5	60.1	61.3	69.7	15	47	148	467	1,476	4,666
460	58998	MANZANITA AVE	59.6	47.8	39.4	59.9	2	5	15	49	155	489
461	59014	PIGEON PASS RD	63.1	53.6	55.7	64.2	4	13	42	132	416	1,315
462	59015	HEACOCK ST	70.2	60.0	59.7	70.9	19	62	195	615	1,945	6,151
463	59016	IRONWOOD AVE	65.7	56.5	63.4	68.0	10	32	100	315	998	3,155
464	59017	HEACOCK ST	70.3	60.1	59.8	71.0	20	63	199	629	1,991	6,295
465	59018	PIGEON PASS RD	70.8	60.4	59.7	71.5	22	71	223	706	2,233	7,063
466	59019	ELDER AVE	62.2	52.9	51.5	63.0	3	10	32	100	315	998
467	59022	GRAEBER ST	63.0	55.1	59.7	65.1	5	16	51	162	512	1,618
468	59058	PIGEON PASS RD	60.2	50.7	49.9	61.0	2	6	20	63	199	629
469	59059	HIDDEN SPRINGS DR	52.1	42.0	33.9	52.5	0	1	3	9	28	89
470	59060	BOX SPRINGS RD	69.7	60.0	65.5	71.5	22	71	223	706	2,233	7,063
471	59062	SUNNYMEAD RANCH PKY	63.2	53.3	51.6	63.9	4	12	39	123	388	1,227
472	59064	OLD LAKE DR	66.9	57.2	56.2	67.7	9	29	93	294	931	2,944
473	59066	SUNNYMEAD RANCH PKY	68.7	59.0	58.0	69.5	14	45	141	446	1,409	4,456
474	59069	IRONWOOD AVE	68.0	58.9	63.6	69.7	15	47	148	467	1,476	4,666
475	59073	COTTONWOOD AVE	61.1	54.7	56.7	63.1	3	10	32	102	323	1,021
476	59101	PIGEON PASS RD	71.9	61.5	60.6	72.6	29	91	288	910	2,877	9,099
477	59102	BOX SPRINGS RD	70.6	62.1	66.6	72.5	28	89	281	889	2,812	8,891
478	59432	LASSELLE ST	72.4	63.0	66.0	73.7	37	117	371	1,172	3,707	11,721
479	59433	KITCHING ST	67.0	57.7	58.7	68.0	10	32	100	315	998	3,155

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

480	59437	LASSELLE ST	70.4	59.4	59.0	71.0	20	63	199	629	1,991	6,295
481	59438	KITCHING ST	66.7	56.9	56.6	67.5	9	28	89	281	889	2,812
482	59439	GENTIAN AVE	65.4	54.6	47.7	65.8	6	19	60	190	601	1,901
483	59440	N PERRIS BLVD	74.7	66.0	68.7	76.1	64	204	644	2,037	6,441	20,369
484	59442	N WEBSTER AVE	72.2	63.6	66.6	73.7	37	117	371	1,172	3,707	11,721
485	59444	N WEBSTER AVE	72.2	63.6	66.6	73.7	37	117	371	1,172	3,707	11,721
486	59446	NANDINA AVE	59.7	50.3	53.0	60.9	2	6	19	62	195	615
487	59447	NANDINA AVE	42.9	36.1	37.4	44.7	0	0	0	1	5	15
488	59448	INDIAN ST	68.9	61.1	64.4	70.7	19	59	186	587	1,858	5,874
489	59449	KRAMERIA AVE	64.5	58.5	59.7	66.5	7	22	71	223	706	2,233
490	59450	KRAMERIA AVE	62.5	57.3	63.4	66.5	7	22	71	223	706	2,233
491	59451	INDIAN ST	65.0	55.6	53.5	65.7	6	19	59	186	587	1,858
492	59452	GENTIAN AVE	66.5	56.0	53.9	67.1	8	26	81	256	811	2,564
493	59453	INDIAN ST	61.4	51.5	52.0	62.2	3	8	26	83	262	830
494	59454	PERRIS BLVD	73.6	63.5	64.8	74.5	45	141	446	1,409	4,456	14,092
495	59455	HEACOCK ST	68.8	60.5	63.0	70.3	17	54	169	536	1,694	5,358
496	59458	HEACOCK ST	71.2	60.8	61.4	72.0	25	79	251	792	2,506	7,924
497	59467	INDIAN ST	66.5	57.0	58.1	67.5	9	28	89	281	889	2,812
498	59468	HEACOCK ST	72.2	63.8	67.2	73.9	39	123	388	1,227	3,881	12,274
499	59469	CACTUS AVE	70.0	60.3	61.1	70.9	19	62	195	615	1,945	6,151
500	59470	INDIAN ST	64.3	53.9	54.3	65.0	5	16	50	158	500	1,581
501	59471	GENTIAN AVE	63.6	53.5	55.8	64.6	5	14	46	144	456	1,442
502	59473	GRAHAM ST	65.1	55.5	52.9	65.8	6	19	60	190	601	1,901
503	59474	HEACOCK ST	67.5	58.6	59.5	68.6	11	36	115	362	1,145	3,622
504	59475	INDIAN ST	63.7	54.2	54.0	64.6	5	14	46	144	456	1,442
505	59476	HEACOCK ST	68.7	58.9	60.3	69.6	14	46	144	456	1,442	4,560
506	59477	GRAHAM ST	66.6	57.0	59.8	67.8	10	30	95	301	953	3,013
507	59478	CACTUS AVE	76.6	67.3	70.5	77.9	97	308	975	3,083	9,749	30,830
508	59479	COTTONWOOD AVE	68.5	57.2	57.0	69.1	13	41	129	406	1,285	4,064
509	59480	GRAHAM ST	61.5	50.5	50.1	62.1	3	8	26	81	256	811
510	59481	HEACOCK ST	66.1	56.6	57.5	67.1	8	26	81	256	811	2,564
511	59482	HEMLOCK AVE	57.6	49.3	49.4	58.7	1	4	12	37	117	371
512	59483	SUNNYMEAD BLVD	67.0	58.3	62.7	68.8	12	38	120	379	1,199	3,793
513	59484	HEACOCK ST	66.9	58.0	60.8	68.2	10	33	104	330	1,045	3,303
514	59486	GRAHAM ST	65.9	55.7	56.9	66.8	8	24	76	239	757	2,393
515	59487	EUCALYPTUS AVE	67.7	60.1	65.9	70.3	17	54	169	536	1,694	5,358
516	59488	INDIAN ST	63.8	55.2	56.3	65.0	5	16	50	158	500	1,581
517	59490	EUCALYPTUS AVE	66.3	59.0	65.6	69.4	14	44	138	435	1,377	4,355
518	59491	CANYON SPRINGS PKY	58.2	45.5	50.5	59.1	1	4	13	41	129	406
519	59493	EUCALYPTUS AVE	66.9	59.8	65.9	69.9	15	49	155	489	1,545	4,886
520	59494	COTTONWOOD AVE	66.4	55.3	54.6	67.0	8	25	79	251	792	2,506
521	59495	INDIAN ST	59.8	49.4	48.1	60.4	2	5	17	55	173	548
522	59543	FREDERICK ST	63.4	53.1	54.3	64.3	4	13	43	135	426	1,346
523	59544	CACTUS AVE	76.6	67.6	70.9	78.0	100	315	998	3,155	9,976	31,548
524	59545	ELSWORTH ST	68.0	59.6	66.5	70.7	19	59	186	587	1,858	5,874
525	59546	CACTUS AVE	76.9	68.7	72.6	78.7	117	371	1,172	3,707	11,721	37,066
526	59547	ELSWORTH ST	63.8	54.8	55.8	64.9	5	15	49	155	489	1,545
527	59548	ALESSANDRO BLVD	75.0	66.3	71.2	76.9	77	245	774	2,449	7,744	24,489
528	59549	E ALESSANDRO BLVD	75.5	67.2	71.9	77.5	89	281	889	2,812	8,891	28,117

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

529	59550	OLD I-215 FRONTAGE RD	71.2	62.9	66.1	72.9	31	97	308	975	3,083	9,749
530	59552	TOWN CIR	65.9	60.5	65.4	69.3	13	43	135	426	1,346	4,256
531	59553	TOWN CIR	52.9	37.5	47.6	54.1	0	1	4	13	41	129
532	59554	COTTONWOOD AVE	65.8	55.8	56.5	66.6	7	23	72	229	723	2,285
533	59556	DAY ST	64.6	58.9	65.9	68.8	12	38	120	379	1,199	3,793
534	59558	MEMORIAL WAY	63.5	51.5	49.3	63.9	4	12	39	123	388	1,227
535	59559	CORPORATE CENTRE PL	44.9	37.7	43.5	47.7	0	0	1	3	9	29
536	59560	TOWN CIR	64.6	55.2	57.0	65.7	6	19	59	186	587	1,858
537	59561	TOWN CIR	52.9	37.5	47.6	54.1	0	1	4	13	41	129
538	59562	FREDERICK ST	67.1	55.8	58.7	68.0	10	32	100	315	998	3,155
539	59563	ELSWORTH ST	64.1	55.7	57.6	65.4	5	17	55	173	548	1,734
540	59564	ALESSANDRO BLVD	71.8	62.4	66.8	73.3	34	107	338	1,069	3,380	10,690
541	59565	EUCALYPTUS AVE	69.3	62.1	66.7	71.7	23	74	234	740	2,339	7,396
542	59567	ELSWORTH ST	64.6	56.4	56.6	65.8	6	19	60	190	601	1,901
543	59568	COTTONWOOD AVE	62.6	51.0	52.4	63.2	3	10	33	104	330	1,045
544	59569	COTTONWOOD AVE	69.2	58.1	59.0	69.9	15	49	155	489	1,545	4,886
545	59570	DAY ST	70.4	63.5	69.6	73.5	35	112	354	1,119	3,540	11,194
546	59572	CORPORATE CENTRE PL	44.9	37.7	43.5	47.7	0	0	1	3	9	29
547	59574	DAY ST	66.9	58.1	59.9	68.1	10	32	102	323	1,021	3,228
548	59575	CACTUS AVE	68.9	58.7	58.6	69.6	14	46	144	456	1,442	4,560
549	59576	CACTUS AVE	68.9	58.6	58.5	69.6	14	46	144	456	1,442	4,560
550	59577	COTTONWOOD AVE	61.8	52.3	51.1	62.6	3	9	29	91	288	910
551	59578	MORRISON ST	59.0	48.5	44.4	59.5	1	4	14	45	141	446
552	59579	ALESSANDRO BLVD	72.3	63.1	66.0	73.6	36	115	362	1,145	3,622	11,454
553	59580	LASSELLE ST	66.6	56.4	57.8	67.5	9	28	89	281	889	2,812
554	59581	KITCHING ST	64.1	52.9	53.2	64.7	5	15	47	148	467	1,476
555	59582	ALESSANDRO BLVD	70.0	61.7	65.4	71.7	23	74	234	740	2,339	7,396
556	59583	EUCALYPTUS AVE	69.2	60.9	66.6	71.5	22	71	223	706	2,233	7,063
557	59585	DRACAEA AVE	61.6	52.1	52.5	62.5	3	9	28	89	281	889
558	59587	LASSELLE ST	68.7	57.7	56.4	69.2	13	42	132	416	1,315	4,159
559	59589	CACTUS AVE	70.0	61.1	61.9	71.1	20	64	204	644	2,037	6,441
560	59590	HEACOCK ST	72.4	63.6	67.1	74.0	40	126	397	1,256	3,972	12,559
561	59591	ELDER AVE	62.2	52.9	51.5	63.0	3	10	32	100	315	998
562	59592	SUNNYMEAD BLVD	68.8	58.5	61.1	69.8	15	48	151	477	1,510	4,775
563	59593	LASSELLE ST	58.1	48.0	39.7	58.5	1	4	11	35	112	354
564	59594	EUCALYPTUS AVE	67.9	60.0	66.0	70.5	18	56	177	561	1,774	5,610
565	59595	EUCALYPTUS AVE	67.8	60.3	65.9	70.4	17	55	173	548	1,734	5,482
566	59596	SUNNYMEAD BLVD	69.9	60.4	63.4	71.2	21	66	208	659	2,084	6,591
567	59597	EUCALYPTUS AVE	67.1	59.4	65.6	69.8	15	48	151	477	1,510	4,775
568	59598	COTTONWOOD AVE	62.0	50.9	50.3	62.6	3	9	29	91	288	910
569	59599	MORRISON ST	61.7	53.0	51.4	62.6	3	9	29	91	288	910
570	59600	KITCHING ST	59.5	47.9	45.9	60.0	2	5	16	50	158	500
571	59601	PERRIS BLVD	72.5	63.1	65.6	73.7	37	117	371	1,172	3,707	11,721
572	59602	CACTUS AVE	70.0	60.8	61.0	71.0	20	63	199	629	1,991	6,295
573	59603	CACTUS AVE	70.0	60.6	60.1	70.8	19	60	190	601	1,901	6,011
574	59605	PERRIS BLVD	74.2	64.1	65.6	75.1	51	162	512	1,618	5,116	16,180
575	59606	GENTIAN AVE	64.3	53.9	47.9	64.8	5	15	48	151	477	1,510
576	59607	COTTONWOOD AVE	65.7	54.5	54.5	66.3	7	21	67	213	674	2,133
577	59608	PERRIS BLVD	72.1	62.7	65.4	73.3	34	107	338	1,069	3,380	10,690

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Hard  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

578	59609	IRONWOOD AVE	65.6	56.5	63.4	67.9	10	31	97	308	975	3,083
579	59610	INDIAN ST	61.0	51.5	49.1	61.7	2	7	23	74	234	740
580	59611	PERRIS BLVD	71.2	62.3	65.6	72.6	29	91	288	910	2,877	9,099
581	59612	DRACAEA AVE	58.7	49.0	48.7	59.5	1	4	14	45	141	446
582	59613	HEACOCK ST	71.4	62.1	64.5	72.6	29	91	288	910	2,877	9,099
583	59614	COTTONWOOD AVE	66.5	55.7	55.9	67.2	8	26	83	262	830	2,624
584	59615	LOCUST AVE	65.7	58.6	60.5	67.4	9	27	87	275	869	2,748
585	59616	PERRIS BLVD	72.1	62.7	65.8	73.4	35	109	346	1,094	3,459	10,939
586	59618	SUNNYMEAD BLVD	65.2	56.1	60.2	66.7	7	23	74	234	740	2,339
587	59620	PERRIS BLVD	72.1	62.8	66.0	73.5	35	112	354	1,119	3,540	11,194
588	59621	EUCALYPTUS AVE	67.5	59.6	65.8	70.1	16	51	162	512	1,618	5,116
589	59622	INDIAN ST	60.1	50.5	49.8	60.9	2	6	19	62	195	615
590	59623	DRACAEA AVE	60.6	50.5	50.2	61.4	2	7	22	69	218	690
591	59624	ALESSANDRO BLVD	70.8	62.1	65.5	72.4	27	87	275	869	2,748	8,689
592	59628	RECHE VISTA DR	71.5	62.8	64.9	72.8	30	95	301	953	3,013	9,527
593	59630	LAKE VISTA RD	55.4	48.1	45.1	56.4	1	2	7	22	69	218
594	59631	HIDDEN SPRINGS DR	64.8	55.9	52.3	65.5	6	18	56	177	561	1,774
595	60043	GILMAN SPRINGS RD	77.1	67.3	72.0	78.6	115	362	1,145	3,622	11,454	36,222
596	60044	GILMAN SPRINGS RD	77.1	67.4	71.7	78.5	112	354	1,119	3,540	11,194	35,397
597	60046	GILMAN SPRINGS RD	77.1	67.3	71.7	78.5	112	354	1,119	3,540	11,194	35,397
598	60047	JACK RABBIT TRL	68.4	59.8	64.2	70.2	17	52	166	524	1,656	5,236
599	60115	MORENO BEACH DR	70.5	62.1	65.2	72.1	26	81	256	811	2,564	8,109
600	60131	PERRIS BLVD	65.7	56.6	56.0	66.6	7	23	72	229	723	2,285
601	60132	CANYON SPRINGS PKY	55.2	46.2	48.0	56.4	1	2	7	22	69	218
602	60133	ALESSANDRO BLVD	66.4	55.0	55.5	67.0	8	25	79	251	792	2,506
603	60134	CORPORATE CENTRE PL	44.9	37.7	43.5	47.7	0	0	1	3	9	29
604	60136	CACTUS AVE	69.6	60.5	61.3	70.7	19	59	186	587	1,858	5,874
605	60142	EUCALYPTUS AVE	65.7	60.3	65.8	69.3	13	43	135	426	1,346	4,256
606	60143	EUCALYPTUS AVE	64.6	59.6	65.5	68.7	12	37	117	371	1,172	3,707
607	60146	QUINCY ST	60.8	49.7	48.2	61.3	2	7	21	67	213	674
608	60147	RECHE VISTA DR	71.5	62.8	64.9	72.8	30	95	301	953	3,013	9,527
609	60148	EUCALYPTUS AVE	70.6	70.3	75.6	77.7	93	294	931	2,944	9,310	29,442
610	60149	GILMAN SPRINGS RD	76.5	67.0	71.4	78.0	100	315	998	3,155	9,976	31,548
611	60150	STREET E	68.7	70.4	65.8	73.4	35	109	346	1,094	3,459	10,939
612	60151	ALESSANDRO BLVD	62.7	55.0	58.1	64.5	4	14	45	141	446	1,409
613	60152	ALESSANDRO BLVD	60.3	54.5	57.9	63.0	3	10	32	100	315	998
614	60155	GILMAN SPRINGS RD	77.1	67.4	71.7	78.5	112	354	1,119	3,540	11,194	35,397
615	60173	STREET F	64.2	65.9	61.3	69.0	13	40	126	397	1,256	3,972
616	60491	IRONWOOD AVE	68.9	58.7	64.6	70.6	18	57	182	574	1,815	5,741
617	61193	GRAEBER ST	62.5	55.1	59.7	64.8	5	15	48	151	477	1,510
618	61273	JOHN F KENNEDY DR	70.6	64.3	68.0	73.1	32	102	323	1,021	3,228	10,209
619	61547	PIGEON PASS RD	57.6	49.0	47.7	58.6	1	4	11	36	115	362
620	61550	PIGEON PASS RD	57.6	49.0	47.7	58.6	1	4	11	36	115	362

FHWA RD-77-108  
Traffic Noise Prediction Model

Data Input Sheet

Project Name : Moreno Valley GPU  
Project Number : 9504  
Modeled Condition : Adopted GP Buildout 2040

Surface Refelction: CNEL  
Assessment Metric: Soft  
Peak ratio to ADT: 10.00  
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway ID	Roadway Name	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1		I-215	114,566	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
2		I-215	136,989	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
3		I-215	127,929	65	50	90.50	4.61	4.89	78.00	4.00	18.00	
4		I-215	134,061	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
5		I-215	129,170	65	50	90.50	4.61	4.89	78.00	4.00	18.00	
6		I-215	163,931	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
7		I-215	149,720	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
8		I-215	168,747	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
9		I-215	168,747	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
10		I-215	162,872	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
11		I-215	178,408	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
12		I-215	178,408	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
13		I-215	157,520	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
14		I-215	158,886	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
15		I-215	169,346	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
16		I-215	169,346	65	50	91.00	4.37	4.64	78.00	4.00	18.00	
17		I-215	149,598	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
18		I-215	157,452	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
19		I-215	156,764	65	50	90.00	4.85	5.15	78.00	4.00	18.00	
20		I-215	146,744	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
21		I-215	147,093	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
22		I-215	151,160	65	50	89.50	5.09	5.41	78.00	4.00	18.00	
23		I-215	133,926	65	50	89.00	5.34	5.67	78.00	4.00	18.00	
24		I-215	143,750	65	50	87.50	6.06	6.44	78.00	4.00	18.00	
25		I-215	124,007	65	50	88.00	5.82	6.18	78.00	4.00	18.00	
26		I-215	123,277	65	50	88.00	5.82	6.18	78.00	4.00	18.00	
27		I-215	204,905	65	50	85.00	7.28	7.73	78.00	4.00	18.00	
28		I-215	228,693	65	50	85.00	7.28	7.73	78.00	4.00	18.00	
29		I-215	244,607	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
30		I-215	219,167	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
31		I-215	216,157	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
32		I-215	219,131	65	50	84.50	7.52	7.98	78.00	4.00	18.00	
33		I-215	214,149	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
34		I-215	217,778	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
35		I-215	199,121	65	50	83.50	8.00	8.50	78.00	4.00	18.00	
36		I-215	189,344	65	50	84.00	7.76	8.24	78.00	4.00	18.00	
37		I-215	182,973	65	50	82.50	8.49	9.01	78.00	4.00	18.00	
38		I-215	189,695	65	50	83.00	8.25	8.76	78.00	4.00	18.00	
39		I-215	175,960	65	50	82.50	8.49	9.01	78.00	4.00	18.00	
40		I-215	190,403	65	50	83.00	8.25	8.76	78.00	4.00	18.00	

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	96,555	65	50	82.00	8.73	9.27	78.00	4.00	18.00
2	SR-60	88,688	65	50	80.50	9.46	10.04	78.00	4.00	18.00
3	SR-60	93,100	65	50	81.50	8.97	9.53	78.00	4.00	18.00
4	SR-60	97,489	65	50	82.50	8.49	9.01	78.00	4.00	18.00
5	SR-60	94,493	65	50	81.50	8.97	9.53	78.00	4.00	18.00
6	SR-60	94,493	65	50	81.50	8.97	9.53	78.00	4.00	18.00
7	SR-60	107,089	65	50	83.00	8.25	8.76	78.00	4.00	18.00
8	SR-60	107,089	65	50	83.00	8.25	8.76	78.00	4.00	18.00
9	SR-60	104,132	65	50	83.00	8.25	8.76	78.00	4.00	18.00
10	SR-60	101,405	65	50	83.00	8.25	8.76	78.00	4.00	18.00
11	SR-60	101,650	65	50	83.00	8.25	8.76	78.00	4.00	18.00
12	SR-60	101,869	65	50	83.00	8.25	8.76	78.00	4.00	18.00
13	SR-60	99,897	65	50	82.50	8.49	9.01	78.00	4.00	18.00
14	SR-60	99,179	65	50	82.50	8.49	9.01	78.00	4.00	18.00
15	SR-60	119,228	65	50	76.50	11.40	12.10	78.00	4.00	18.00
16	SR-60	114,506	65	50	76.00	11.64	12.36	78.00	4.00	18.00
17	SR-60	125,944	65	50	74.50	12.37	13.13	78.00	4.00	18.00
18	SR-60	125,944	65	50	74.50	12.37	13.13	78.00	4.00	18.00
19	SR-60	120,090	65	50	74.00	12.61	13.39	78.00	4.00	18.00
20	SR-60	129,337	65	50	76.50	11.40	12.10	78.00	4.00	18.00
21	SR-60	118,911	65	50	75.00	12.13	12.88	78.00	4.00	18.00
22	SR-60	142,972	65	50	79.50	9.94	10.56	78.00	4.00	18.00
23	SR-60	133,254	65	50	77.50	10.91	11.59	78.00	4.00	18.00
24	SR-60	145,237	65	50	78.00	10.67	11.33	78.00	4.00	18.00
25	SR-60	138,752	65	50	77.00	11.16	11.85	78.00	4.00	18.00
26	SR-60	139,045	65	50	77.00	11.16	11.85	78.00	4.00	18.00
27	SR-60	152,918	65	50	79.50	9.94	10.56	78.00	4.00	18.00
28	SR-60	143,745	65	50	80.00	9.70	10.30	78.00	4.00	18.00
29	SR-60	154,242	65	50	81.50	8.97	9.53	78.00	4.00	18.00
30	SR-60	154,242	65	50	81.50	8.97	9.53	78.00	4.00	18.00
31	SR-60	154,242	65	50	81.50	8.97	9.53	78.00	4.00	18.00

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Predicted Noise Levels**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040  
**Assessment Metric:** Soft

Segment	Roadway ID	Roadway Name	Noise Levels, dBA Soft				Distance to Traffic Noise Level Contours, Feet					
			Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1		I-215	82.8	76.3	80.0	85.2	239	516	1,111	2,393	5,156	11,108
2		I-215	83.6	76.6	80.3	85.8	262	565	1,218	2,624	5,653	12,180
3		I-215	83.3	76.5	80.3	85.6	254	548	1,181	2,545	5,482	11,811
4		I-215	83.5	76.5	80.2	85.7	258	557	1,199	2,584	5,567	11,994
5		I-215	83.3	76.6	80.3	85.7	258	557	1,199	2,584	5,567	11,994
6		I-215	84.4	77.4	81.1	86.6	297	639	1,377	2,967	6,392	13,771
7		I-215	84.0	77.0	80.7	86.2	279	601	1,295	2,790	6,011	12,951
8		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
9		I-215	84.5	77.5	81.2	86.7	301	649	1,398	3,013	6,491	13,984
10		I-215	84.4	77.3	81.1	86.6	297	639	1,377	2,967	6,392	13,771
11		I-215	84.8	77.7	81.5	87.0	315	680	1,464	3,155	6,797	14,643
12		I-215	84.8	77.7	81.5	87.0	315	680	1,464	3,155	6,797	14,643
13		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
14		I-215	84.2	77.7	81.4	86.6	297	639	1,377	2,967	6,392	13,771
15		I-215	84.5	77.5	81.2	86.8	306	659	1,420	3,059	6,591	14,200
16		I-215	84.5	77.5	81.2	86.8	306	659	1,420	3,059	6,591	14,200
17		I-215	84.0	77.4	81.2	86.4	288	620	1,335	2,877	6,199	13,355
18		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
19		I-215	84.2	77.6	81.4	86.6	297	639	1,377	2,967	6,392	13,771
20		I-215	83.9	77.5	81.3	86.4	288	620	1,335	2,877	6,199	13,355
21		I-215	83.9	77.6	81.3	86.4	288	620	1,335	2,877	6,199	13,355
22		I-215	84.0	77.7	81.4	86.5	292	629	1,356	2,922	6,295	13,561
23		I-215	83.4	77.4	81.1	86.1	275	592	1,275	2,748	5,920	12,754
24		I-215	83.7	78.2	82.0	86.6	297	639	1,377	2,967	6,392	13,771
25		I-215	83.1	77.4	81.1	85.9	266	574	1,237	2,665	5,741	12,368
26		I-215	83.0	77.4	81.1	85.8	262	565	1,218	2,624	5,653	12,180
27		I-215	85.1	80.5	84.3	88.5	397	856	1,843	3,972	8,557	18,435
28		I-215	85.6	81.0	84.8	89.0	429	924	1,991	4,288	9,239	19,905
29		I-215	85.8	81.6	85.3	89.4	456	982	2,117	4,560	9,824	21,166
30		I-215	85.3	81.1	84.9	88.9	422	910	1,960	4,223	9,099	19,602
31		I-215	85.3	81.1	84.8	88.8	416	896	1,930	4,159	8,960	19,304
32		I-215	85.3	81.0	84.7	88.8	416	896	1,930	4,159	8,960	19,304
33		I-215	85.2	81.0	84.8	88.8	416	896	1,930	4,159	8,960	19,304
34		I-215	85.3	81.1	84.8	88.9	422	910	1,960	4,223	9,099	19,602
35		I-215	84.9	80.8	84.6	88.5	397	856	1,843	3,972	8,557	18,435
36		I-215	84.7	80.5	84.2	88.3	385	830	1,788	3,852	8,298	17,877
37		I-215	84.5	80.7	84.5	88.3	385	830	1,788	3,852	8,298	17,877
38		I-215	84.6	80.8	84.5	88.4	391	843	1,815	3,911	8,426	18,154
39		I-215	84.3	80.6	84.3	88.1	374	805	1,734	3,735	8,047	17,337
40		I-215	84.7	80.8	84.5	88.4	391	843	1,815	3,911	8,426	18,154

**FHWA RD-77-108  
Traffic Noise Prediction Model**

**Data Input Sheet**

**Project Name :** Moreno Valley GPU  
**Project Number :** 9504  
**Modeled Condition :** Adopted GP Buildout 2040

**Surface Refelction:** CNEL  
**Assessment Metric:** Soft  
**Peak ratio to ADT:** 10.00  
**Traffic Desc. (Peak or ADT) :** ADT

1	SR-60	81.7	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
2	SR-60	81.2	78.0	81.8	85.4	247	532	1,145	2,468	5,317	11,454
3	SR-60	81.5	78.0	81.8	85.5	251	540	1,163	2,506	5,399	11,632
4	SR-60	81.7	78.0	81.7	85.6	254	548	1,181	2,545	5,482	11,811
5	SR-60	81.5	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
6	SR-60	81.5	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
7	SR-60	82.2	78.3	82.0	85.9	266	574	1,237	2,665	5,741	12,368
8	SR-60	82.2	78.3	82.0	85.9	266	574	1,237	2,665	5,741	12,368
9	SR-60	82.0	78.2	81.9	85.8	262	565	1,218	2,624	5,653	12,180
10	SR-60	81.9	78.0	81.8	85.7	258	557	1,199	2,584	5,567	11,994
11	SR-60	81.9	78.0	81.8	85.7	258	557	1,199	2,584	5,567	11,994
12	SR-60	81.9	78.1	81.8	85.7	258	557	1,199	2,584	5,567	11,994
13	SR-60	81.8	78.1	81.8	85.7	258	557	1,199	2,584	5,567	11,994
14	SR-60	81.8	78.1	81.8	85.6	254	548	1,181	2,545	5,482	11,811
15	SR-60	82.3	80.1	83.9	87.1	320	690	1,487	3,204	6,902	14,870
16	SR-60	82.1	80.1	83.8	87.0	315	680	1,464	3,155	6,797	14,643
17	SR-60	82.4	80.7	84.5	87.6	346	745	1,606	3,459	7,453	16,056
18	SR-60	82.4	80.7	84.5	87.6	346	745	1,606	3,459	7,453	16,056
19	SR-60	82.2	80.6	84.4	87.4	335	723	1,557	3,355	7,227	15,571
20	SR-60	82.6	80.5	84.2	87.5	341	734	1,581	3,406	7,339	15,811
21	SR-60	82.2	80.4	84.1	87.3	330	712	1,533	3,303	7,117	15,333
22	SR-60	83.2	80.3	84.1	87.6	346	745	1,606	3,459	7,453	16,056
23	SR-60	82.8	80.4	84.2	87.5	341	734	1,581	3,406	7,339	15,811
24	SR-60	83.2	80.7	84.5	87.8	357	768	1,656	3,567	7,685	16,557
25	SR-60	83.0	80.7	84.4	87.7	351	757	1,630	3,513	7,568	16,304
26	SR-60	83.0	80.7	84.5	87.7	351	757	1,630	3,513	7,568	16,304
27	SR-60	83.5	80.6	84.4	87.9	362	780	1,681	3,622	7,804	16,813
28	SR-60	83.3	80.3	84.0	87.6	346	745	1,606	3,459	7,453	16,056
29	SR-60	83.7	80.2	84.0	87.7	351	757	1,630	3,513	7,568	16,304
30	SR-60	83.7	80.2	84.0	87.7	351	757	1,630	3,513	7,568	16,304
31	SR-60	83.7	80.2	84.0	87.7	351	757	1,630	3,513	7,568	16,304

## **Traffic Noise Increase Calculations**

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

Segment	Roadway ID	Roadway Name	Existing	2040 GPU	ΔdB	Allowable Increase	Dif	Sig?	2040 NoPrj	ΔdB	Allowable Increase	Dif	Sig?	Different Impact?
34	27569	ALESSANDRO BLVD	63.5	54.0	-9.5	3	-12.5	No	53.8	-9.7	3	-12.7	No	No
42	27784	ALESSANDRO BLVD	61.7	65.3	3.6	3	0.6	Yes	64.5	2.8	3	-0.2	No	Yes
43	27785	ALESSANDRO BLVD	68.3	71.4	3.1	1.5	1.6	Yes	70.8	2.5	1.5	1.0	Yes	No
60	28191	ALESSANDRO BLVD	68.9	74.8	5.9	1.5	4.4	Yes	73.9	5.0	1.5	3.5	Yes	No
70	28209	ALESSANDRO BLVD	67.1	73.5	6.4	1.5	4.9	Yes	72.6	5.5	1.5	4.0	Yes	No
109	28389	ALESSANDRO BLVD	69.5	73.9	4.4	1.5	2.9	Yes	73.3	3.8	1.5	2.3	Yes	No
110	28390	ALESSANDRO BLVD	69.0	73.5	4.5	1.5	3.0	Yes	73.3	4.3	1.5	2.8	Yes	No
115	28400	ALESSANDRO BLVD	69.0	73.5	4.5	1.5	3.0	Yes	73.3	4.3	1.5	2.8	Yes	No
138	28465	ALESSANDRO BLVD	70.2	73.7	3.5	1.5	2.0	Yes	73.7	3.5	1.5	2.0	Yes	No
139	28466	ALESSANDRO BLVD	71.5	73.5	2.0	1.5	0.5	Yes	73.7	2.2	1.5	0.7	Yes	No
165	28542	ALESSANDRO BLVD	72.0	73.5	1.5	1.5	0.0	No	73.5	1.5	1.5	0.0	No	No
177	28686	ALESSANDRO BLVD	71.7	73.5	1.8	1.5	0.3	Yes	73.3	1.6	1.5	0.1	Yes	No
178	28687	ALESSANDRO BLVD	72.0	74.6	2.6	1.5	1.1	Yes	74.4	2.4	1.5	0.9	Yes	No
200	28781	ALESSANDRO BLVD	74.8	77.2	2.4	1.5	0.9	Yes	77.1	2.3	1.5	0.8	Yes	No
218	36246	ALESSANDRO BLVD	64.5	67.1	2.6	3	-0.4	No	66.9	2.4	3	-0.6	No	No
268	44464	ALESSANDRO BLVD	74.2	76.0	1.8	1.5	0.3	Yes	75.8	1.6	1.5	0.1	Yes	No
281	44831	ALESSANDRO BLVD	68.9	74.0	5.1	1.5	3.6	Yes	73.5	4.6	1.5	3.1	Yes	No
352	57047	ALESSANDRO BLVD	68.3	71.1	2.8	1.5	1.3	Yes	70.3	2.0	1.5	0.5	Yes	No
356	57051	ALESSANDRO BLVD	61.7	64.0	2.3	3	-0.7	No	63	1.3	3	-1.7	No	No
366	57063	ALESSANDRO BLVD	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
367	57064	ALESSANDRO BLVD	#VALUE!	74.2	#VALUE!				69.5	#VALUE!				
447	58461	ALESSANDRO BLVD	68.3	71.1	2.8	1.5	1.3	Yes	70.3	2.0	1.5	0.5	Yes	No
450	58978	ALESSANDRO BLVD	#VALUE!	74.2	#VALUE!				69.5	#VALUE!				
527	59548	ALESSANDRO BLVD	74.8	77.0	2.2	1.5	0.7	Yes	76.9	2.1	1.5	0.6	Yes	No
540	59564	ALESSANDRO BLVD	71.7	73.5	1.8	1.5	0.3	Yes	73.3	1.6	1.5	0.1	Yes	No
552	59579	ALESSANDRO BLVD	68.9	74.2	5.3	1.5	3.8	Yes	73.6	4.7	1.5	3.2	Yes	No
555	59582	ALESSANDRO BLVD	67.1	73.1	6.0	1.5	4.5	Yes	71.7	4.6	1.5	3.1	Yes	No
591	59624	ALESSANDRO BLVD	69.5	73.3	3.8	1.5	2.3	Yes	72.4	2.9	1.5	1.4	Yes	No
602	60133	ALESSANDRO BLVD	#VALUE!	67.2	#VALUE!				67	#VALUE!				
612	60151	ALESSANDRO BLVD	61.7	65.3	3.6	3	0.6	Yes	64.5	2.8	3	-0.2	No	Yes
613	60152	ALESSANDRO BLVD	61.7	64.0	2.3	3	-0.7	No	63	1.3	3	-1.7	No	No
241	41059	ALTA CALLE	63.8	68.7	4.9	3	1.9	Yes	68.5	4.7	3	1.7	Yes	No
242	41060	ALTA CALLE	63.8	67.4	3.6	3	0.6	Yes	67.1	3.3	3	0.3	Yes	No
243	41061	ALTA CALLE	63.7	67.9	4.2	3	1.2	Yes	67.6	3.9	3	0.9	Yes	No
432	58419	ALTA CALLE	63.8	68.7	4.9	3	1.9	Yes	68.5	4.7	3	1.7	Yes	No
436	58423	ALTA CALLE	63.8	67.4	3.6	3	0.6	Yes	67.1	3.3	3	0.3	Yes	No
206	28823	BOX SPRINGS RD	68.0	71.0	3.0	1.5	1.5	Yes	71.5	3.5	1.5	2.0	Yes	No
207	28829	BOX SPRINGS RD	69.0	71.8	2.8	1.5	1.3	Yes	72.5	3.5	1.5	2.0	Yes	No
208	32731	BOX SPRINGS RD	69.5	72.1	2.6	1.5	1.1	Yes	72.7	3.2	1.5	1.7	Yes	No
470	59060	BOX SPRINGS RD	68.0	71.0	3.0	1.5	1.5	Yes	71.5	3.5	1.5	2.0	Yes	No
477	59102	BOX SPRINGS RD	69.0	71.8	2.8	1.5	1.3	Yes	72.5	3.5	1.5	2.0	Yes	No
1	3490	CACTUS AVE	77.0	79.1	2.1	1.5	0.6	Yes	79	2.0	1.5	0.5	Yes	No
5	11519	CACTUS AVE	77.4	78.7	1.3	1.5	-0.2	No	78.7	1.3	1.5	-0.2	No	No
6	11520	CACTUS AVE	77.6	79.0	1.4	1.5	-0.1	No	78.9	1.3	1.5	-0.2	No	No
38	27734	CACTUS AVE	68.8	72.0	3.2	1.5	1.7	Yes	71.8	3.0	1.5	1.5	Yes	No
107	28387	CACTUS AVE	70.1	71.3	1.2	1.5	-0.3	No	70.8	0.7	1.5	-0.8	No	No
108	28388	CACTUS AVE	70.1	71.3	1.2	1.5	-0.3	No	71	0.9	1.5	-0.6	No	No
149	28489	CACTUS AVE	70.1	71.5	1.4	1.5	-0.1	No	71	0.9	1.5	-0.6	No	No
150	28490	CACTUS AVE	76.0	78.1	2.1	1.5	0.6	Yes	78	2.0	1.5	0.5	Yes	No
169	28559	CACTUS AVE	77.1	78.1	1.0	1.5	-0.5	No	78	0.9	1.5	-0.6	No	No
180	28689	CACTUS AVE	77.2	78.2	1.0	1.5	-0.5	No	78	0.8	1.5	-0.7	No	No
202	28808	CACTUS AVE	77.0	79.1	2.1	1.5	0.6	Yes	79	2.0	1.5	0.5	Yes	No
276	44826	CACTUS AVE	69.2	70.1	0.9	1.5	-0.6	No	69.7	0.5	1.5	-1.0	No	No
277	44827	CACTUS AVE	69.2	69.8	0.6	1.5	-0.9	No	69.6	0.4	1.5	-1.1	No	No
351	57046	CACTUS AVE	65.5	70.8	5.3	1.5	3.8	Yes	70.7	5.2	1.5	3.7	Yes	No
354	57049	CACTUS AVE	65.5	70.9	5.4	1.5	3.9	Yes	70.7	5.2	1.5	3.7	Yes	No
357	57052	CACTUS AVE	68.8	72.4	3.6	1.5	2.1	Yes	72.3	3.5	1.5	2.0	Yes	No
369	57066	CACTUS AVE	#VALUE!	72.4	#VALUE!				69.4	#VALUE!				
409	58347	CACTUS AVE	#VALUE!	72.4	#VALUE!				69.5	#VALUE!				
425	58411	CACTUS AVE	65.5	70.9	5.4	1.5	3.9	Yes	70.7	5.2	1.5	3.7	Yes	No
427	58413	CACTUS AVE	65.5	71.0	5.5	1.5	4.0	Yes	70.6	5.1	1.5	3.6	Yes	No
429	58415	CACTUS AVE	68.8	72.3	3.5	1.5	2.0	Yes	72.1	3.3	1.5	1.8	Yes	No
430	58416	CACTUS AVE	68.8	72.3	3.5	1.5	2.0	Yes	72.2	3.4	1.5	1.9	Yes	No
499	59469	CACTUS AVE	70.1	71.4	1.3	1.5	-0.2	No	70.9	0.8	1.5	-0.7	No	No
507	59478	CACTUS AVE	76.0	78.0	2.0	1.5	0.5	Yes	77.9	1.9	1.5	0.4	Yes	No
523	59544	CACTUS AVE	77.1	78.1	1.0	1.5	-0.5	No	78	0.9	1.5	-0.6	No	No
525	59546	CACTUS AVE	77.6	78.8	1.2	1.5	-0.3	No	78.7	1.1	1.5	-0.4	No	No
548	59575	CACTUS AVE	69.2	69.8	0.6	1.5	-0.9	No	69.6	0.4	1.5	-1.1	No	No
549	59576	CACTUS AVE	69.2	69.8	0.6	1.5	-0.9	No	69.6	0.4	1.5	-1.1	No	No
559	59589	CACTUS AVE	70.1	71.7	1.6	1.5	0.1	Yes	71.1	1.0	1.5	-0.5	No	Yes
572	59602	CACTUS AVE	70.1	71.5	1.4	1.5	-0.1	No	71	0.9	1.5	-0.6	No	No
573	59603	CACTUS AVE	70.1	71.2	1.1	1.5	-0.4	No	70.8	0.7	1.5	-0.8	No	No
604	60136	CACTUS AVE	65.5	70.9	5.4	1.5	3.9	Yes	70.7	5.2	1.5	3.7	Yes	No
262	44357	CANYON SPRINGS PKY	64.3	60.2	-4.1	3	-7.1	No	61.8	-2.5	3	-5.5	No	No
518	59491	CANYON SPRINGS PKY	69.0	59.1	-9.9	1.5	-11.4	No	59.1	-9.9	1.5	-11.4	No	No
601	60132	CANYON SPRINGS PKY	64.3	56.2	-8.1	3	-11.1	No	56.4	-7.9	3	-10.9	No	No
188	28733	CENTERPOINT DR	64.7	66.0	1.3	3	-1.7	No	66.3	1.6	3	-1.4	No	No
535	59559	CORPORATE CENTRE PL	69.0	47.1	-21.9	1.5	-23.4	No	47.7	-21.3	1.5	-22.8	No	No
546	59572	CORPORATE CENTRE PL	69.0	47.1	-21.9	1.5	-23.4	No	47.7	-21.3	1.5	-22.8	No	No
603	60134	CORPORATE CENTRE PL	69.0	47.1	-21.9	1.5	-23.4	No	47.7	-21.3	1.5	-22.8	No	No
45	27787	COTTONWOOD AVE	64.4	70.3	5.9	3	2.9	Yes	70.1	5.7	3	2.7	Yes	No
46	27788	COTTONWOOD AVE	58.1	62.0	3.9	5	-1.1	No	63.1	5.0	5	0.0	No	No
59	28184	COTTONWOOD AVE	59.9	64.5	4.6	5	-0.4	No	62.6	2.7	5	-2.3	No	No
63	28200	COTTONWOOD AVE	60.2	66.5	6.3	3	3.3	Yes	65.1	4.9	3	1.9	Yes	No
73	28212	COTTONWOOD AVE	60.3	66.6	6.3	3	3.3	Yes	65.6	5.3	3	2.3	Yes	No
92	28350	COTTONWOOD AVE	64.8	67.7	2.9	3	-0.1	No	67.2	2.4	3	-0.6	No	No
93	28351	COTTONWOOD AVE	63.4	66.4	3.0	3	0.0	Yes	66.4	3.0	3	0.0	Yes	No
102	28373	COTTONWOOD AVE	58.1	59.4	1.3	5	-3.7	No	59.3	1.2	5	-3.8	No	No
120	28426	COTTONWOOD AVE	62.7	66.7	4.0	3	1.0	Yes	65.9	3.2	3	0.2	Yes	No
123	28448	COTTONWOOD AVE	65.5	67.8	2.3	1.5	0.8	Yes	68.2	2.7	1.5	1.2	Yes	No
124	28449	COTTONWOOD AVE	66.3	68.9	2.6	1.5	1.1	Yes	69.3	3.0	1.5	1.5	Yes	No
162	28539	COTTONWOOD AVE	67.1	69.9	2.8	1.5	1.3	Yes	70.3	3.2	1.5	1.7	Yes	No
174	28679	COTTONWOOD AVE	60.1	63.6	3.5	3	0.5	Yes	63.2	3.1	3	0.1	Yes	No
175	28680	COTTONWOOD AVE	64.8	66.4	1.6	3	-1.4	No	66.6	1.8	3	-1.2	No	No
254	41073	COTTONWOOD AVE	61.3	63.6	2.3	3	-0.7	No	63.1	1.8	3	-1.2	No	No
260	44355	COTTONWOOD AVE	54.9	62.6	7.7	5	2.7	Yes	62.6	7.7	5	2.7	Yes	No
284	44834	COTTONWOOD AVE	64.4	67.5	3.1	3	0.1	Yes	67.8	3.4	3	0.4	Yes	No
359	57054	COTTONWOOD AVE	64.4	65.1	0.7	3	-2.3	No	65.4	1.0	3	-2.0	No	No
442	58456	COTTONWOOD AVE	58.1	59.4	1.3	5	-3.7	No	59.3	1.2	5	-3.8	No	No
475	59073	COTTONWOOD AVE	61.3	63.6	2.3	3	-0.7	No	63.1	1.8	3	-1.2	No	No
508	59479	COTTONWOOD AVE	66.3	68.9	2.6									

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

545	59570	DAY ST	70.6	73.0	2.4	1.5	0.9	Yes	73.5	2.9	1.5	1.4	Yes	No
547	59574	DAY ST	65.8	66.8	1.0	1.5	-0.5	No	68.1	2.3	1.5	0.8	Yes	Yes
226	41043	DRACAEA AVE	53.8	52.2	-1.6	5	-6.6	No	52.9	-0.9	5	-5.9	No	No
227	41044	DRACAEA AVE	55.0	59.5	4.5	5	-0.5	No	59.6	4.6	5	-0.4	No	No
228	41045	DRACAEA AVE	56.6	60.6	4.0	5	-1.0	No	60.6	4.0	5	-1.0	No	No
229	41046	DRACAEA AVE	56.1	61.5	5.4	5	0.4	Yes	61.4	5.3	5	0.3	Yes	No
230	41047	DRACAEA AVE	57.8	59.0	1.2	5	-3.8	No	59.5	1.7	5	-3.3	No	No
231	41048	DRACAEA AVE	60.2	63.3	3.1	3	0.1	Yes	63.3	3.1	3	0.1	Yes	No
557	59585	DRACAEA AVE	60.2	62.7	2.5	3	-0.5	No	62.5	2.3	3	-0.7	No	No
581	59612	DRACAEA AVE	57.8	59.0	1.2	5	-3.8	No	59.5	1.7	5	-3.3	No	No
590	59623	DRACAEA AVE	56.1	61.5	5.4	5	0.4	Yes	61.4	5.3	5	0.3	Yes	No
12	11529	E ALESSANDRO BLVD	75.6	77.5	1.9	1.5	0.4	Yes	77.5	1.9	1.5	0.4	Yes	No
13	11530	E ALESSANDRO BLVD	75.6	77.5	1.9	1.5	0.4	Yes	77.5	1.9	1.5	0.4	Yes	No
201	28789	E ALESSANDRO BLVD	76.3	78.1	1.8	1.5	0.3	Yes	78.1	1.8	1.5	0.3	Yes	No
209	34467	E ALESSANDRO BLVD	75.6	77.4	1.8	1.5	0.3	Yes	77.3	1.7	1.5	0.2	Yes	No
528	59549	E ALESSANDRO BLVD	75.6	77.5	1.9	1.5	0.4	Yes	77.5	1.9	1.5	0.4	Yes	No
303	48358	E OLEANDER AVE	53.3	61.6	8.3	5	3.3	Yes	61.2	7.9	5	2.9	Yes	No
394	57095	ELDER AVE	61.5	61.9	0.4	3	-2.6	No	63	1.5	3	-1.5	No	No
395	57096	ELDER AVE	59.7	62.3	2.6	5	-2.4	No	62.9	3.2	5	-1.8	No	No
399	57101	ELDER AVE	61.5	61.9	0.4	3	-2.6	No	63	1.5	3	-1.5	No	No
458	58996	ELDER AVE	58.1	60.8	2.7	5	-2.3	No	61.3	3.2	5	-1.8	No	No
466	59019	ELDER AVE	61.5	61.9	0.4	3	-2.6	No	63	1.5	3	-1.5	No	No
561	59591	ELDER AVE	61.5	61.9	0.4	3	-2.6	No	63	1.5	3	-1.5	No	No
170	28674	ELSWORTH ST	63.1	65.0	1.9	3	-1.1	No	65.4	2.3	3	-0.7	No	No
173	28678	ELSWORTH ST	64.8	64.7	-0.1	3	-3.1	No	65.3	0.5	3	-2.5	No	No
176	28685	ELSWORTH ST	65.3	64.5	-0.8	1.5	-2.3	No	64.9	-0.4	1.5	-1.9	No	No
179	28688	ELSWORTH ST	66.3	66.8	0.5	1.5	-1.0	No	67.1	0.8	1.5	-0.7	No	No
224	37192	ELSWORTH ST	65.3	64.5	-0.8	1.5	-2.3	No	64.9	-0.4	1.5	-1.9	No	No
524	59545	ELSWORTH ST	65.6	70.6	5.0	1.5	3.5	Yes	70.7	5.1	1.5	3.6	Yes	No
526	59547	ELSWORTH ST	65.3	64.5	-0.8	1.5	-2.3	No	64.9	-0.4	1.5	-1.9	No	No
539	59563	ELSWORTH ST	64.0	64.8	0.8	3	-2.2	No	65.4	1.4	3	-1.6	No	No
542	59567	ELSWORTH ST	65.1	65.5	0.4	1.5	-1.1	No	65.8	0.7	1.5	-0.8	No	No
3	7889	ENCCELIA AVE	#VALUE!	68.0	#VALUE!				67.6	#VALUE!				
389	57087	ENCCELIA AVE	#VALUE!	68.0	#VALUE!				68	#VALUE!				
57	28182	EUCALYPTUS AVE	64.9	70.2	5.3	3	2.3	Yes	70.4	5.5	3	2.5	Yes	No
67	28206	EUCALYPTUS AVE	66.0	70.1	4.1	1.5	2.6	Yes	70.5	4.5	1.5	3.0	Yes	No
68	28207	EUCALYPTUS AVE	67.0	71.8	4.8	1.5	3.3	Yes	71.5	4.5	1.5	3.0	Yes	No
87	28344	EUCALYPTUS AVE	65.8	70.2	4.4	1.5	2.9	Yes	70.3	4.5	1.5	3.0	Yes	No
88	28345	EUCALYPTUS AVE	64.4	70.0	5.6	3	2.6	Yes	70.1	5.7	3	2.7	Yes	No
130	28455	EUCALYPTUS AVE	63.8	69.4	5.6	3	2.6	Yes	69.7	5.9	3	2.9	Yes	No
163	28540	EUCALYPTUS AVE	63.1	69.2	6.1	3	3.1	Yes	69.6	6.5	3	3.5	Yes	No
172	28676	EUCALYPTUS AVE	62.2	69.8	7.6	3	4.6	Yes	70.2	8.0	3	5.0	Yes	No
182	28693	EUCALYPTUS AVE	68.4	72.5	4.1	1.5	2.6	Yes	72.8	4.4	1.5	2.9	Yes	No
198	28775	EUCALYPTUS AVE	68.9	74.1	5.2	1.5	3.7	Yes	74.3	5.4	1.5	3.9	Yes	No
199	28776	EUCALYPTUS AVE	70.5	74.4	3.9	1.5	2.4	Yes	74.6	4.1	1.5	2.6	Yes	No
279	44829	EUCALYPTUS AVE	#VALUE!	69.6	#VALUE!				69.9	#VALUE!				
296	48346	EUCALYPTUS AVE	69.0	73.4	4.4	1.5	2.9	Yes	73.7	4.7	1.5	3.2	Yes	No
363	57059	EUCALYPTUS AVE	68.8	70.8	2.0	1.5	0.5	Yes	71.2	2.4	1.5	0.9	Yes	No
371	57068	EUCALYPTUS AVE	#VALUE!	77.6	#VALUE!				77.7	#VALUE!				
381	57079	EUCALYPTUS AVE	70.9	73.4	2.5	1.5	1.0	Yes	73.5	2.6	1.5	1.1	Yes	No
383	57081	EUCALYPTUS AVE	70.9	73.4	2.5	1.5	1.0	Yes	73.5	2.6	1.5	1.1	Yes	No
384	57082	EUCALYPTUS AVE	#VALUE!	77.6	#VALUE!				77.7	#VALUE!				
402	57223	EUCALYPTUS AVE	#VALUE!	77.6	#VALUE!				77.7	#VALUE!				
437	58451	EUCALYPTUS AVE	#VALUE!	69.6	#VALUE!				69.9	#VALUE!				
439	58453	EUCALYPTUS AVE	68.8	70.8	2.0	1.5	0.5	Yes	71.2	2.4	1.5	0.9	Yes	No
515	59487	EUCALYPTUS AVE	65.4	70.3	4.9	1.5	3.4	Yes	70.3	4.9	1.5	3.4	Yes	No
517	59490	EUCALYPTUS AVE	64.3	69.2	4.9	3	1.9	Yes	69.4	5.1	3	2.1	Yes	No
519	59493	EUCALYPTUS AVE	62.0	69.5	7.5	3	4.5	Yes	69.9	7.9	3	4.9	Yes	No
556	59583	EUCALYPTUS AVE	67.0	71.8	4.8	1.5	3.3	Yes	71.5	4.5	1.5	3.0	Yes	No
564	59594	EUCALYPTUS AVE	66.0	70.1	4.1	1.5	2.6	Yes	70.5	4.5	1.5	3.0	Yes	No
565	59595	EUCALYPTUS AVE	64.9	70.2	5.3	3	2.3	Yes	70.4	5.5	3	2.5	Yes	No
567	59597	EUCALYPTUS AVE	65.8	69.8	4.0	1.5	2.5	Yes	69.8	4.0	1.5	2.5	Yes	No
588	59621	EUCALYPTUS AVE	64.4	70.0	5.6	3	2.6	Yes	70.1	5.7	3	2.7	Yes	No
605	60142	EUCALYPTUS AVE	#VALUE!	69.1	#VALUE!				69.3	#VALUE!				
606	60143	EUCALYPTUS AVE	#VALUE!	68.4	#VALUE!				68.7	#VALUE!				
609	60148	EUCALYPTUS AVE	#VALUE!	77.6	#VALUE!				77.7	#VALUE!				
246	41065	EVANS RD	70.6	73.9	3.3	1.5	1.8	Yes	73.8	3.2	1.5	1.7	Yes	No
337	56981	EVANS RD	70.2	73.0	2.8	1.5	1.3	Yes	73	2.8	1.5	1.3	Yes	No
8	11523	FREDERICK ST	71.5	72.4	0.9	1.5	-0.6	No	73	1.5	1.5	0.0	No	No
10	11525	FREDERICK ST	71.3	73.5	2.2	1.5	0.7	Yes	73.7	2.4	1.5	0.9	Yes	No
187	28732	FREDERICK ST	70.7	73.0	2.3	1.5	0.8	Yes	73.2	2.5	1.5	1.0	Yes	No
192	28740	FREDERICK ST	68.5	68.1	-0.4	1.5	-1.9	No	68.5	0.0	1.5	-1.5	No	No
194	28743	FREDERICK ST	69.5	70.0	0.5	1.5	-1.0	No	70.3	0.8	1.5	-0.7	No	No
195	28744	FREDERICK ST	67.9	68.3	0.4	1.5	-1.1	No	68.5	0.6	1.5	-0.9	No	No
196	28751	FREDERICK ST	66.2	63.1	-3.1	1.5	-4.6	No	63.6	-2.6	1.5	-4.1	No	No
238	41055	FREDERICK ST	69.6	70.2	0.6	1.5	-0.9	No	70.5	0.9	1.5	-0.6	No	No
522	59543	FREDERICK ST	66.4	65.5	-0.9	1.5	-2.4	No	64.3	-2.1	1.5	-3.6	No	No
538	59562	FREDERICK ST	68.1	67.9	-0.2	1.5	-1.7	No	68	-0.1	1.5	-1.6	No	No
264	44359	GATEWAY DR	66.4	61.6	-4.8	1.5	-6.3	No	62.3	-4.1	1.5	-5.6	No	No
331	56974	GATEWAY DR	66.4	61.6	-4.8	1.5	-6.3	No	62.3	-4.1	1.5	-5.6	No	No
413	58352	GATEWAY DR	66.4	61.6	-4.8	1.5	-6.3	No	62.3	-4.1	1.5	-5.6	No	No
66	28205	GENTIAN AVE	65.8	66.0	0.2	1.5	-1.3	No	65.6	-0.2	1.5	-1.7	No	No
342	57035	GENTIAN AVE	61.0	66.5	5.5	3	2.5	Yes	65.5	4.5	3	1.5	Yes	No
344	57037	GENTIAN AVE	65.8	68.0	2.2	1.5	0.7	Yes	66.9	1.1	1.5	-0.4	No	Yes
345	57038	GENTIAN AVE	68.0	66.7	-1.3	1.5	-2.8	No	67.4	-0.6	1.5	-2.1	No	No
482	59439	GENTIAN AVE	65.7	66.3	0.6	1.5	-0.9	No	65.8	0.1	1.5	-1.4	No	No
492	59452	GENTIAN AVE	65.8	67.9	2.1	1.5	0.6	Yes	67.1	1.3	1.5	-0.2	No	Yes
501	59471	GENTIAN AVE	61.0	66.0	5.0	3	2.0	Yes	64.6	3.6	3	0.6	Yes	No
575	59606	GENTIAN AVE	64.6	64.7	0.1	3	-2.9	No	64.8	0.2	3	-2.8	No	No
54	28136	GILMAN SPRINGS RD	75.8	78.5	2.7	1.5	1.2	Yes	78.5	2.7	1.5	1.2	Yes	No
213	36241	GILMAN SPRINGS RD	76.1	78.3	2.2	1.5	0.7	Yes	78.4	2.3	1.5	0.8	Yes	No
214	36242	GILMAN SPRINGS RD	75.8	78.5	2.7	1.5	1.2	Yes	78.5	2.7	1.5	1.2	Yes	No
215	36243	GILMAN SPRINGS RD	76.0	78.5	2.5	1.5	1.0	Yes	78.5	2.5	1.5	1.0	Yes	No
216	36244	GILMAN SPRINGS RD	75.8	78.6	2.8	1.5	1.3	Yes	78.6	2.8	1.5	1.3	Yes	No
270	44807	GILMAN SPRINGS RD	75.8	78.5	2.7	1.5	1.2	Yes	78.5	2.7	1.5	1.2	Yes	No
314	52679	GILMAN SPRINGS RD	76.1	78.3	2.2	1.5	0.7	Yes	78.4	2.3	1.5	0.8	Yes	No
315	52682	GILMAN SPRINGS RD	76.1	78.1	2.0	1.5	0.5	Yes	78.1	2.0	1.5	0.5	Yes	No
374	57072	GILMAN SPRINGS RD	76.1	78.0	1.9	1.5	0.4	Yes	78	1.9	1.5	0.4	Yes	No
392	57091	GILMAN SPRINGS RD	75.8	78.5	2.7	1.5	1.2	Yes	78.5	2.7	1.5	1.2	Yes	No
401	57222	GILMAN SPRINGS RD	76.1	78.0	1.9	1.5	0.4	Yes	78	1.9	1.5	0.4	Yes	No
407	58231	GILMAN SPRINGS RD	76.1	78.1	2.0	1.5	0.5	Yes	78.1	2.0	1.5	0.5	Yes	No
408	58345	GILMAN SPRINGS RD	75.8	78.4	2.6	1.5	1.1	Yes	78.5	2.7	1.5	1.2	Yes	No
595	60043	GILMAN SPRINGS RD	7											

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

506	59477	GRAHAM ST	64.3	68.7	4.4	3	1.4	Yes	67.8	3.5	3	0.5	Yes	No
509	59480	GRAHAM ST	63.9	62.1	-1.8	3	-4.8	No	62.1	-1.8	3	-4.8	No	No
514	59486	GRAHAM ST	62.3	66.5	4.2	3	1.2	Yes	66.8	4.5	3	1.5	Yes	No
121	28446	HEACOCK ST	69.5	69.5	0.0	1.5	-1.5	No	69.7	0.2	1.5	-1.3	No	No
122	28447	HEACOCK ST	68.3	69.2	0.9	1.5	-0.6	No	69.3	1.0	1.5	-0.5	No	No
125	28450	HEACOCK ST	70.6	71.1	0.5	1.5	-1.0	No	71.8	1.2	1.5	-0.3	No	No
128	28453	HEACOCK ST	67.8	68.5	0.7	1.5	-0.8	No	68.6	0.8	1.5	-0.7	No	No
129	28454	HEACOCK ST	67.9	67.9	0.0	1.5	-1.5	No	68.1	0.2	1.5	-1.3	No	No
131	28458	HEACOCK ST	68.5	69.6	1.1	1.5	-0.4	No	69.5	1.0	1.5	-0.5	No	No
134	28461	HEACOCK ST	68.6	69.2	0.6	1.5	-0.9	No	69.3	0.7	1.5	-0.8	No	No
135	28462	HEACOCK ST	68.7	69.7	1.0	1.5	-0.5	No	69.4	0.7	1.5	-0.8	No	No
136	28463	HEACOCK ST	71.2	72.7	1.5	1.5	0.0	No	72.7	1.5	1.5	0.0	No	No
137	28464	HEACOCK ST	71.1	74.4	3.3	1.5	1.8	Yes	74.4	3.3	1.5	1.8	Yes	No
142	28469	HEACOCK ST	66.3	66.8	0.5	1.5	-1.0	No	66.9	0.6	1.5	-0.9	No	No
144	28471	HEACOCK ST	71.7	73.6	1.9	1.5	0.4	Yes	73.7	2.0	1.5	0.5	Yes	No
147	28482	HEACOCK ST	72.3	74.1	1.8	1.5	0.3	Yes	74.1	1.8	1.5	0.3	Yes	No
236	41053	HEACOCK ST	69.4	69.3	-0.1	1.5	-1.6	No	69.4	0.0	1.5	-1.5	No	No
259	44348	HEACOCK ST	65.7	65.2	-0.5	1.5	-2.0	No	65.5	-0.2	1.5	-1.7	No	No
287	46868	HEACOCK ST	70.4	73.9	3.5	1.5	2.0	Yes	74.1	3.7	1.5	2.2	Yes	No
305	51959	HEACOCK ST	71.2	71.8	0.6	1.5	-0.9	No	71.9	0.7	1.5	-0.8	No	No
306	51963	HEACOCK ST	70.8	71.8	1.0	1.5	-0.5	No	71.9	1.1	1.5	-0.4	No	No
321	53490	HEACOCK ST	68.2	68.0	-0.2	1.5	-1.7	No	68.2	0.0	1.5	-1.5	No	No
335	56979	HEACOCK ST	70.8	72.6	1.8	1.5	0.3	Yes	72.6	1.8	1.5	0.3	Yes	No
340	57033	HEACOCK ST	71.6	70.2	-1.4	1.5	-2.9	No	70	-1.6	1.5	-3.1	No	No
406	57514	HEACOCK ST	72.3	74.9	2.6	1.5	1.1	Yes	75	2.7	1.5	1.2	Yes	No
455	58992	HEACOCK ST	65.7	65.2	-0.5	1.5	-2.0	No	65.5	-0.2	1.5	-1.7	No	No
462	59015	HEACOCK ST	69.8	70.3	0.5	1.5	-1.0	No	70.9	1.1	1.5	-0.4	No	No
464	59017	HEACOCK ST	69.7	70.4	0.7	1.5	-0.8	No	71	1.3	1.5	-0.2	No	No
495	59455	HEACOCK ST	68.4	70.3	1.9	1.5	0.4	Yes	70.3	1.9	1.5	0.4	Yes	No
496	59458	HEACOCK ST	71.2	71.9	0.7	1.5	-0.8	No	72	0.8	1.5	-0.7	No	No
498	59468	HEACOCK ST	72.3	73.9	1.6	1.5	0.1	Yes	73.9	1.6	1.5	0.1	Yes	No
503	59474	HEACOCK ST	67.8	68.5	0.7	1.5	-0.8	No	68.6	0.8	1.5	-0.7	No	No
505	59476	HEACOCK ST	70.3	69.5	-0.8	1.5	-2.3	No	69.6	-0.7	1.5	-2.2	No	No
510	59481	HEACOCK ST	67.3	67.3	0.0	1.5	-1.5	No	67.1	-0.2	1.5	-1.7	No	No
513	59484	HEACOCK ST	68.2	68.0	-0.2	1.5	-1.7	No	68.2	0.0	1.5	-1.5	No	No
560	59590	HEACOCK ST	70.6	73.7	3.1	1.5	1.6	Yes	74	3.4	1.5	1.9	Yes	No
582	59613	HEACOCK ST	71.7	72.6	0.9	1.5	-0.6	No	72.6	0.9	1.5	-0.6	No	No
11	11526	HEMLOCK AVE	64.3	62.5	-1.8	3	-4.8	No	63.5	-0.8	3	-3.8	No	No
210	34564	HEMLOCK AVE	66.5	67.2	0.7	1.5	-0.8	No	67.5	1.0	1.5	-0.5	No	No
324	54317	HEMLOCK AVE	61.6	57.8	-3.8	3	-6.8	No	58.7	-2.9	3	-5.9	No	No
511	59482	HEMLOCK AVE	61.6	57.8	-3.8	3	-6.8	No	58.7	-2.9	3	-5.9	No	No
225	41042	HIDDEN SPRINGS DR	50.3	50.9	0.6	5	-4.4	No	52.5	2.2	5	-2.8	No	No
469	59059	HIDDEN SPRINGS DR	50.3	50.9	0.6	5	-4.4	No	52.5	2.2	5	-2.8	No	No
594	59631	HIDDEN SPRINGS DR	47.4	64.3	16.9	5	11.9	Yes	65.5	18.1	5	13.1	Yes	No
419	58404	HIGHLAND BLVD	56.7	58.0	1.3	5	-3.7	No	57.8	1.1	5	-3.9	No	No
158	28507	INDIAN AVE	63.4	65.1	1.7	3	-1.3	No	66.2	2.8	3	-0.2	No	No
454	58991	INDIAN AVE	63.4	59.0	-4.4	3	-7.4	No	60.3	-3.1	3	-6.1	No	No
151	28491	INDIAN ST	61.0	64.5	3.5	3	0.5	Yes	64.6	3.6	3	0.6	Yes	No
152	28492	INDIAN ST	60.3	64.6	4.3	3	1.3	Yes	64.6	4.3	3	1.3	Yes	No
153	28493	INDIAN ST	62.5	65.0	2.5	3	-0.5	No	65.4	2.9	3	-0.1	No	No
154	28494	INDIAN ST	61.2	64.3	3.1	3	0.1	Yes	64.9	3.7	3	0.7	Yes	No
155	28495	INDIAN ST	58.3	61.5	3.2	5	-1.8	No	62.1	3.8	5	-1.2	No	No
156	28496	INDIAN ST	63.7	60.5	-3.2	3	-6.2	No	60.9	-2.8	3	-5.8	No	No
157	28497	INDIAN ST	62.5	64.9	2.4	3	-0.6	No	65.3	2.8	3	-0.2	No	No
235	41052	INDIAN ST	57.9	62.2	4.3	5	-0.7	No	62.7	4.8	5	-0.2	No	No
297	48348	INDIAN ST	62.1	69.0	6.9	3	3.9	Yes	69.8	7.7	3	4.7	Yes	No
298	48349	INDIAN ST	62.1	69.0	6.9	3	3.9	Yes	69.8	7.7	3	4.7	Yes	No
300	48351	INDIAN ST	62.3	68.7	6.4	3	3.4	Yes	69.4	7.1	3	4.1	Yes	No
301	48352	INDIAN ST	63.6	68.7	5.1	3	2.1	Yes	69.4	5.8	3	2.8	Yes	No
319	53307	INDIAN ST	63.5	69.3	5.8	3	2.8	Yes	69.7	6.2	3	3.2	Yes	No
329	56967	INDIAN ST	63.5	69.3	5.8	3	2.8	Yes	69.7	6.2	3	3.2	Yes	No
333	56977	INDIAN ST	68.1	65.8	-2.3	1.5	-3.8	No	65.7	-2.4	1.5	-3.9	No	No
341	57034	INDIAN ST	61.0	64.2	3.2	3	0.2	Yes	64.2	3.2	3	0.2	Yes	No
488	59448	INDIAN ST	63.6	69.6	6.0	3	3.0	Yes	70.7	7.1	3	4.1	Yes	No
491	59451	INDIAN ST	62.6	65.8	3.2	3	0.2	Yes	65.7	3.1	3	0.1	Yes	No
493	59453	INDIAN ST	61.2	61.2	0.0	3	-3.0	No	62.2	1.0	3	-2.0	No	No
497	59467	INDIAN ST	63.7	66.6	2.9	3	-0.1	No	67.5	3.8	3	0.8	Yes	Yes
500	59470	INDIAN ST	61.0	64.9	3.9	3	0.9	Yes	65	4.0	3	1.0	Yes	No
504	59475	INDIAN ST	60.3	64.6	4.3	3	1.3	Yes	64.6	4.3	3	1.3	Yes	No
516	59488	INDIAN ST	61.0	65.0	4.0	3	1.0	Yes	65	4.0	3	1.0	Yes	No
521	59495	INDIAN ST	55.2	60.1	4.9	5	-0.1	No	60.4	5.2	5	0.2	Yes	Yes
579	59610	INDIAN ST	60.3	60.5	0.2	3	-2.8	No	61.7	1.4	3	-1.6	No	No
589	59622	INDIAN ST	58.6	60.4	1.8	5	-3.2	No	60.9	2.3	5	-2.7	No	No
76	28255	IRIS AVE	68.7	74.1	5.4	1.5	3.9	Yes	73.9	5.2	1.5	3.7	Yes	No
100	28365	IRIS AVE	69.0	72.2	3.2	1.5	1.7	Yes	72.5	3.5	1.5	2.0	Yes	No
101	28366	IRIS AVE	68.6	66.2	-2.4	1.5	-3.9	No	66.1	-2.5	1.5	-4.0	No	No
113	28397	IRIS AVE	68.7	74.1	5.4	1.5	3.9	Yes	73.9	5.2	1.5	3.7	Yes	No
221	36249	IRIS AVE	73.0	77.1	4.1	1.5	2.6	Yes	76.7	3.7	1.5	2.2	Yes	No
222	36930	IRIS AVE	73.0	74.8	1.8	1.5	0.3	Yes	74.5	1.5	1.5	0.0	No	Yes
289	48027	IRIS AVE	70.3	66.7	-3.6	1.5	-5.1	No	66.5	-3.8	1.5	-5.3	No	No
347	57042	IRIS AVE	71.4	74.5	3.1	1.5	1.6	Yes	74.3	2.9	1.5	1.4	Yes	No
431	58417	IRIS AVE	73.0	77.0	4.0	1.5	2.5	Yes	76.8	3.8	1.5	2.3	Yes	No
433	58420	IRIS AVE	73.0	74.5	1.5	1.5	0.0	No	74.3	1.3	1.5	-0.2	No	No
35	27588	IRONWOOD AVE	47.5	57.7	10.2	5	5.2	Yes	58.2	10.7	5	5.7	Yes	No
47	27805	IRONWOOD AVE	63.4	68.4	5.0	3	2.0	Yes	67.7	4.3	3	1.3	Yes	No
48	27806	IRONWOOD AVE	66.6	68.3	1.7	1.5	0.2	Yes	68	1.4	1.5	-0.1	No	Yes
55	28170	IRONWOOD AVE	62.8	67.8	5.0	3	2.0	Yes	67.2	4.4	3	1.4	Yes	No
74	28213	IRONWOOD AVE	66.5	68.9	2.4	1.5	0.9	Yes	69.1	2.6	1.5	1.1	Yes	No
111	28393	IRONWOOD AVE	63.8	66.6	2.8	3	-0.2	No	68	4.2	3	1.2	Yes	Yes
126	28451	IRONWOOD AVE	64.8	66.9	2.1	3	-0.9	No	68.1	3.3	3	0.3	Yes	Yes
127	28452	IRONWOOD AVE	64.8	68.6	3.8	3	0.8	Yes	68.5	3.7	3	0.7	Yes	No
140	28467	IRONWOOD AVE	63.6	67.8	4.2	3	1.2	Yes	67.2	3.6	3	0.6	Yes	No
166	28551	IRONWOOD AVE	66.5	67.4	0.9	1.5	-0.6	No	67.7	1.2	1.5	-0.3	No	No
186	28731	IRONWOOD AVE	67.2	70.1	2.9	1.5	1.4	Yes	71	3.8	1.5	2.3	Yes	No
211	36199	IRONWOOD AVE	66.5	67.2	0.7	1.5	-0.8	No	67.6	1.1	1.5	-0.4	No	No
379	57077	IRONWOOD AVE	64.8	68.3	3.5	3	0.5	Yes	68.1	3.3	3	0.3	Yes	No
390	57088	IRONWOOD AVE	56.6	64.4	7.8	5	2.8	Yes	63.9	7.3	5	2.3	Yes	No
393	57093	IRONWOOD AVE	65.9	69.5	3.6	1.5	2.1	Yes	69.4	3.5	1.5	2.0	Yes	No
398	57100	IRONWOOD AVE	47.5	57.7	10.2	5	5.2	Yes	58.2	10.7	5	5.7	Yes	No
405	57513	IRONWOOD AVE	67.2	70.1	2.9	1.5	1.4	Yes	71	3.8	1.5	2.3	Yes	No
420	58405	IRONWOOD AVE	47.5	40.6	-6.9	5	-11.9	No	43.4	-4.1	5	-9.1	No	No
423	58408	IRONWOOD AVE	56.6	58.2	1.6	5	-3.4	No	58.3	1.7	5	-3.3	No</	

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

114	28399	KITCHING ST	62.4	65.0	2.6	3	-0.4	No	64.9	2.5	3	-0.5	No	No
116	28401	KITCHING ST	62.3	62.6	0.3	3	-2.7	No	62.7	0.4	3	-2.6	No	No
117	28402	KITCHING ST	55.2	58.9	3.7	5	-1.3	No	56	0.8	5	-4.2	No	No
118	28424	KITCHING ST	61.0	65.0	4.0	3	1.0	Yes	64.3	3.3	3	0.3	Yes	No
119	28425	KITCHING ST	59.5	64.6	5.1	5	0.1	Yes	63.5	4.0	5	-1.0	No	Yes
232	41049	KITCHING ST	62.8	66.8	4.0	3	1.0	Yes	66.3	3.5	3	0.5	Yes	No
404	57495	KITCHING ST	64.3	69.0	4.7	3	1.7	Yes	69.2	4.9	3	1.9	Yes	No
479	59433	KITCHING ST	64.2	66.6	2.4	3	-0.6	No	68	3.8	3	0.8	Yes	Yes
481	59438	KITCHING ST	66.5	67.2	0.7	1.5	-0.8	No	67.5	1.0	1.5	-0.5	No	No
554	59581	KITCHING ST	61.7	65.0	3.3	3	0.3	Yes	64.7	3.0	3	0.0	No	Yes
570	59600	KITCHING ST	61.9	61.3	-0.6	3	-3.6	No	60	-1.9	3	-4.9	No	No
77	28256	KRAMERIA AVE	59.2	61.5	2.3	5	-2.7	No	62.3	3.1	5	-1.9	No	No
96	28361	KRAMERIA AVE	67.8	68.8	1.0	1.5	-0.5	No	69.1	1.3	1.5	-0.2	No	No
266	44361	KRAMERIA AVE	66.1	61.6	-4.5	1.5	-6.0	No	62.4	-3.7	1.5	-5.2	No	No
267	44362	KRAMERIA AVE	59.2	61.5	2.3	5	-2.7	No	62.3	3.1	5	-1.9	No	No
280	44830	KRAMERIA AVE	#VALUE!	65.2	#VALUE!				66.5	#VALUE!				
334	56978	KRAMERIA AVE	62.2	48.6	-13.6	3	-16.6	No	49.4	-12.8	3	-15.8	No	No
336	56980	KRAMERIA AVE	#VALUE!	43.9	#VALUE!				45.5	#VALUE!				
489	59449	KRAMERIA AVE	62.2	65.0	2.8	3	-0.2	No	66.5	4.3	3	1.3	Yes	Yes
490	59450	KRAMERIA AVE	#VALUE!	65.2	#VALUE!				66.5	#VALUE!				
78	28283	LAKE PERRIS DR	63.4	70.0	6.6	3	3.6	Yes	69.6	6.2	3	3.2	Yes	No
244	41062	LAKE PERRIS DR	62.5	68.2	5.7	3	2.7	Yes	68	5.5	3	2.5	Yes	No
245	41064	LAKE PERRIS DR	60.3	65.7	5.4	3	2.4	Yes	65.6	5.3	3	2.3	Yes	No
249	41068	LAKE PERRIS DR	58.2	65.0	6.8	5	1.8	Yes	64.8	6.6	5	1.6	Yes	No
435	58422	LAKE PERRIS DR	62.4	67.0	4.6	3	1.6	Yes	66.7	4.3	3	1.3	Yes	No
258	44347	LAKE VISTA RD	53.9	55.9	2.0	5	-3.0	No	56	2.1	5	-2.9	No	No
593	59630	LAKE VISTA RD	53.8	56.5	2.7	5	-2.3	No	56.4	2.6	5	-2.4	No	No
61	28198	LASSELLE ST	63.7	68.4	4.7	3	1.7	Yes	67.1	3.4	3	0.4	Yes	No
62	28199	LASSELLE ST	63.6	69.4	5.8	3	2.8	Yes	67.3	3.7	3	0.7	Yes	No
64	28203	LASSELLE ST	69.1	71.4	2.3	1.5	0.8	Yes	70.2	1.1	1.5	-0.4	No	Yes
65	28204	LASSELLE ST	69.4	72.5	3.1	1.5	1.6	Yes	71.5	2.1	1.5	0.6	Yes	No
69	28208	LASSELLE ST	66.1	68.4	2.3	1.5	0.8	Yes	69.1	3.0	1.5	1.5	Yes	No
71	28210	LASSELLE ST	68.4	71.5	3.1	1.5	1.6	Yes	70.5	2.1	1.5	0.6	Yes	No
75	28254	LASSELLE ST	72.4	74.1	1.7	1.5	0.2	Yes	73.9	1.5	1.5	0.0	No	Yes
233	41050	LASSELLE ST	64.9	68.3	3.4	3	0.4	Yes	67.5	2.6	3	-0.4	No	Yes
247	41066	LASSELLE ST	70.6	73.9	3.3	1.5	1.8	Yes	73.8	3.2	1.5	1.7	Yes	No
265	44360	LASSELLE ST	70.6	73.9	3.3	1.5	1.8	Yes	73.8	3.2	1.5	1.7	Yes	No
275	44823	LASSELLE ST	70.5	74.2	3.7	1.5	2.2	Yes	74	3.5	1.5	2.0	Yes	No
282	44832	LASSELLE ST	70.6	73.9	3.3	1.5	1.8	Yes	73.8	3.2	1.5	1.7	Yes	No
294	48294	LASSELLE ST	56.4	58.3	1.9	5	-3.1	No	58.1	1.7	5	-3.3	No	No
478	59432	LASSELLE ST	70.0	73.9	3.9	1.5	2.4	Yes	73.7	3.7	1.5	2.2	Yes	No
480	59437	LASSELLE ST	69.8	72.0	2.2	1.5	0.7	Yes	71	1.2	1.5	-0.3	No	Yes
553	59580	LASSELLE ST	63.8	69.3	5.5	3	2.5	Yes	67.5	3.7	3	0.7	Yes	No
558	59587	LASSELLE ST	66.0	68.7	2.7	1.5	1.2	Yes	69.2	3.2	1.5	1.7	Yes	No
563	59593	LASSELLE ST	57.1	58.7	1.6	5	-3.4	No	58.5	1.4	5	-3.6	No	No
302	48353	LOCUST AVE	66.2	66.9	0.7	1.5	-0.8	No	67.4	1.2	1.5	-0.3	No	No
396	57097	LOCUST AVE	66.2	67.1	0.9	1.5	-0.6	No	67.6	1.4	1.5	-0.1	No	No
584	59615	LOCUST AVE	66.2	67.0	0.8	1.5	-0.7	No	67.4	1.2	1.5	-0.3	No	No
80	28306	MANZANITA AVE	54.4	60.4	6.0	5	1.0	Yes	60.8	6.4	5	1.4	Yes	No
83	28334	MANZANITA AVE	53.3	60.1	6.8	5	1.8	Yes	60.6	7.3	5	2.3	Yes	No
141	28468	MANZANITA AVE	55.9	59.0	3.1	5	-1.9	No	59.9	4.0	5	-1.0	No	No
460	58998	MANZANITA AVE	55.9	59.0	3.1	5	-1.9	No	59.9	4.0	5	-1.0	No	No
181	28692	MEMORIAL WAY	67.3	65.8	-1.5	1.5	-3.0	No	66.1	-1.2	1.5	-2.7	No	No
263	44358	MEMORIAL WAY	69.2	64.0	-5.2	1.5	-6.7	No	63.9	-5.3	1.5	-6.8	No	No
534	59558	MEMORIAL WAY	69.2	64.0	-5.2	1.5	-6.7	No	63.9	-5.3	1.5	-6.8	No	No
145	28472	MEYER ST	69.9	69.7	-0.2	1.5	-1.7	No	69.6	-0.3	1.5	-1.8	No	No
167	28553	MEYER ST	69.9	69.7	-0.2	1.5	-1.7	No	69.6	-0.3	1.5	-1.8	No	No
28	11618	MORENO BEACH DR	68.6	74.7	6.1	1.5	4.6	Yes	74.7	6.1	1.5	4.6	Yes	No
29	11619	MORENO BEACH DR	67.1	70.4	3.3	1.5	1.8	Yes	70.1	3.0	1.5	1.5	Yes	No
30	11620	MORENO BEACH DR	69.9	71.1	1.2	1.5	-0.3	No	70.9	1.0	1.5	-0.5	No	No
36	27732	MORENO BEACH DR	69.8	70.1	0.3	1.5	-1.2	No	70.4	0.6	1.5	-0.9	No	No
37	27733	MORENO BEACH DR	69.8	72.0	2.2	1.5	0.7	Yes	71.9	2.1	1.5	0.6	Yes	No
39	27735	MORENO BEACH DR	72.2	75.4	3.2	1.5	1.7	Yes	75.2	3.0	1.5	1.5	Yes	No
41	27783	MORENO BEACH DR	69.6	72.2	2.6	1.5	1.1	Yes	71.9	2.3	1.5	0.8	Yes	No
44	27786	MORENO BEACH DR	67.9	67.2	-0.7	1.5	-2.2	No	67.2	-0.7	1.5	-2.2	No	No
223	37189	MORENO BEACH DR	68.6	69.3	0.7	1.5	-0.8	No	69.7	1.1	1.5	-0.4	No	No
311	52672	MORENO BEACH DR	68.6	71.8	3.2	1.5	1.7	Yes	71.8	3.2	1.5	1.7	Yes	No
440	58454	MORENO BEACH DR	68.1	71.6	3.5	1.5	2.0	Yes	71.4	3.3	1.5	1.8	Yes	No
445	58459	MORENO BEACH DR	68.6	71.8	3.2	1.5	1.7	Yes	71.8	3.2	1.5	1.7	Yes	No
459	58997	MORENO BEACH DR	68.6	69.3	0.7	1.5	-0.8	No	69.7	1.1	1.5	-0.4	No	No
599	60115	MORENO BEACH DR	69.8	72.4	2.6	1.5	1.1	Yes	72.1	2.3	1.5	0.8	Yes	No
261	44356	MORRISON ST	58.7	62.3	3.6	5	-1.4	No	60.9	2.2	5	-2.8	No	No
365	57062	MORRISON ST	#VALUE!	#VALUE!	#VALUE!				50.3	#VALUE!				
551	59578	MORRISON ST	58.7	60.1	1.4	5	-3.6	No	59.5	0.8	5	-4.2	No	No
569	59599	MORRISON ST	60.0	62.3	2.3	5	-2.7	No	62.6	2.6	5	-2.4	No	No
89	28347	N PERRIS BLVD	71.2	76.0	4.8	1.5	3.3	Yes	76.1	4.9	1.5	3.4	Yes	No
269	44465	N PERRIS BLVD	71.2	76.0	4.8	1.5	3.3	Yes	76.1	4.9	1.5	3.4	Yes	No
285	46116	N PERRIS BLVD	71.2	76.0	4.8	1.5	3.3	Yes	76.1	4.9	1.5	3.4	Yes	No
304	48366	N PERRIS BLVD	72.1	75.9	3.8	1.5	2.3	Yes	76	3.9	1.5	2.4	Yes	No
318	53302	N PERRIS BLVD	69.0	74.7	5.7	1.5	4.2	Yes	74.8	5.8	1.5	4.3	Yes	No
330	56969	N PERRIS BLVD	71.3	74.7	3.4	1.5	1.9	Yes	74.8	3.5	1.5	2.0	Yes	No
483	59440	N PERRIS BLVD	71.2	76.1	4.9	1.5	3.4	Yes	76.1	4.9	1.5	3.4	Yes	No
146	28473	N WEBSTER AVE	70.2	73.3	3.1	1.5	1.6	Yes	73.4	3.2	1.5	1.7	Yes	No
328	56965	N WEBSTER AVE	71.1	73.6	2.5	1.5	1.0	Yes	73.7	2.6	1.5	1.1	Yes	No
484	59442	N WEBSTER AVE	71.1	73.6	2.5	1.5	1.0	Yes	73.7	2.6	1.5	1.1	Yes	No
485	59444	N WEBSTER AVE	71.1	73.6	2.5	1.5	1.0	Yes	73.7	2.6	1.5	1.1	Yes	No
90	28348	NANDINA AVE	64.5	54.9	-9.6	3	-12.6	No	56.9	-7.6	3	-10.6	No	No
299	48350	NANDINA AVE	63.6	28.7	-34.9	3	-37.9	No	31.7	-31.9	3	-34.9	No	No
486	59446	NANDINA AVE	62.2	57.4	-4.8	3	-7.8	No	60.9	-1.3	3	-4.3	No	No
487	59447	NANDINA AVE	64.5	50.8	-13.7	3	-16.7	No	44.7	-19.8	3	-22.8	No	No
18	11543	NASON ST	66.9	70.6	3.7	1.5	2.2	Yes	70.7	3.8	1.5	2.3	Yes	No
19	11544	NASON ST	62.3	64.2	1.9	3	-1.1	No	63.4	1.1	3	-1.9	No	No
20	11545	NASON ST	68.3	70.3	2.0	1.5	0.5	Yes	70.3	2.0	1.5	0.5	Yes	No
56	28181	NASON ST	66.8	72.4	5.6	1.5	4.1	Yes	72.5	5.7	1.5	4.2	Yes	No
58	28183	NASON ST	66.5	71.9	5.4	1.5	3.9	Yes	72.1	5.6	1.5	4.1	Yes	No
307	51964	NASON ST	67.2	72.8	5.6	1.5	4.1	Yes	73.1	5.9	1.5	4.4	Yes	No
308	51965	NASON ST	67.4	71.8	4.4	1.5	2.9	Yes	71.1	3.7	1.5	2.2	Yes	No
316	52714	NASON ST	67.4	72.8	5.4	1.5	3.9	Yes	72.5	5.1	1.5	3.6	Yes	No
317	52715	NASON ST	67.2	68.4	1.2	1.5	-0.3	No	68.4	1.2	1.5	-0.3	No	No
346	57041	NASON ST	67.4	71.5	4.1	1.5	2.6	Yes	71	3.6	1.5	2.1	Yes	No
434	58421	NASON ST	67.4	71.5	4.1	1.5	2.6	Yes	71	3.6	1.5	2.1	Yes	No
441	58455	NASON ST	69.1	70.6	1.5	1.5	0.0	No	70.7	1.6	1.5	0.1	Yes	Yes
444	58458													

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

94	28354	PERRIS BLVD	72.6	73.4	0.8	1.5	-0.7	No	73.5	0.9	1.5	-0.6	No	No
95	28360	PERRIS BLVD	72.5	75.7	3.2	1.5	1.7	Yes	76	3.5	1.5	2.0	Yes	No
97	28362	PERRIS BLVD	72.9	74.5	1.6	1.5	0.1	Yes	74.7	1.8	1.5	0.3	Yes	No
98	28363	PERRIS BLVD	71.3	73.5	2.2	1.5	0.7	Yes	74.1	2.8	1.5	1.3	Yes	No
99	28364	PERRIS BLVD	71.2	74.4	3.2	1.5	1.7	Yes	74.6	3.4	1.5	1.9	Yes	No
103	28383	PERRIS BLVD	71.2	74.0	2.8	1.5	1.3	Yes	74.1	2.9	1.5	1.4	Yes	No
106	28386	PERRIS BLVD	71.4	73.3	1.9	1.5	0.4	Yes	73.3	1.9	1.5	0.4	Yes	No
212	36202	PERRIS BLVD	70.5	73.1	2.6	1.5	1.1	Yes	73.6	3.1	1.5	1.6	Yes	No
234	41051	PERRIS BLVD	72.7	73.9	1.2	1.5	-0.3	No	73.8	1.1	1.5	-0.4	No	No
322	53491	PERRIS BLVD	72.5	73.4	0.9	1.5	-0.6	No	73.5	1.0	1.5	-0.5	No	No
343	57036	PERRIS BLVD	72.1	74.1	2.0	1.5	0.5	Yes	74.1	2.0	1.5	0.5	Yes	No
364	57060	PERRIS BLVD	72.8	74.0	1.2	1.5	-0.3	No	73.9	1.1	1.5	-0.4	No	No
451	58979	PERRIS BLVD	69.0	73.0	4.0	1.5	2.5	Yes	73.1	4.1	1.5	2.6	Yes	No
452	58980	PERRIS BLVD	68.6	72.7	4.1	1.5	2.6	Yes	72.8	4.2	1.5	2.7	Yes	No
453	58990	PERRIS BLVD	69.1	73.0	3.9	1.5	2.4	Yes	73.1	4.0	1.5	2.5	Yes	No
457	58995	PERRIS BLVD	67.2	71.6	4.4	1.5	2.9	Yes	71.6	4.4	1.5	2.9	Yes	No
494	59454	PERRIS BLVD	71.2	74.2	3.0	1.5	1.5	Yes	74.5	3.3	1.5	1.8	Yes	No
571	59601	PERRIS BLVD	71.8	73.6	1.8	1.5	0.3	Yes	73.7	1.9	1.5	0.4	Yes	No
574	59605	PERRIS BLVD	72.1	74.9	2.8	1.5	1.3	Yes	75.1	3.0	1.5	1.5	Yes	No
577	59608	PERRIS BLVD	72.1	73.3	1.2	1.5	-0.3	No	73.3	1.2	1.5	-0.3	No	No
580	59611	PERRIS BLVD	68.9	72.1	3.2	1.5	1.7	Yes	72.6	3.7	1.5	2.2	Yes	No
585	59616	PERRIS BLVD	72.5	73.3	0.8	1.5	-0.7	No	73.4	0.9	1.5	-0.6	No	No
587	59620	PERRIS BLVD	72.6	73.4	0.8	1.5	-0.7	No	73.5	0.9	1.5	-0.6	No	No
600	60131	PERRIS BLVD	67.2	66.4	-0.8	1.5	-2.3	No	66.6	-0.6	1.5	-2.1	No	No
4	9102	PIGEON PASS RD	71.1	72.0	0.9	1.5	-0.6	No	72.6	1.5	1.5	0.0	No	No
7	11522	PIGEON PASS RD	71.2	72.0	0.8	1.5	-0.7	No	72.6	1.4	1.5	-0.1	No	No
184	28729	PIGEON PASS RD	71.2	71.7	0.5	1.5	-1.0	No	72.6	1.4	1.5	-0.1	No	No
185	28730	PIGEON PASS RD	69.4	69.8	0.4	1.5	-1.1	No	70.7	1.3	1.5	-0.2	No	No
189	28737	PIGEON PASS RD	69.0	69.7	0.7	1.5	-0.8	No	70.5	1.5	1.5	0.0	No	No
190	28738	PIGEON PASS RD	61.5	61.9	0.4	3	-2.6	No	62	0.5	3	-2.5	No	No
191	28739	PIGEON PASS RD	70.2	70.7	0.5	1.5	-1.0	No	71.5	1.3	1.5	-0.2	No	No
193	28742	PIGEON PASS RD	57.6	63.9	6.3	5	1.3	Yes	64.1	6.5	5	1.5	Yes	No
197	28760	PIGEON PASS RD	56.5	60.4	3.9	5	-1.1	No	60.8	4.3	5	-0.7	No	No
327	56560	PIGEON PASS RD	54.3	57.8	3.5	5	-1.5	No	58.6	4.3	5	-0.7	No	No
403	57282	PIGEON PASS RD	54.3	57.8	3.5	5	-1.5	No	58.6	4.3	5	-0.7	No	No
412	58351	PIGEON PASS RD	56.5	60.6	4.1	5	-0.9	No	61	4.5	5	-0.5	No	No
461	59014	PIGEON PASS RD	57.9	64.1	6.2	5	1.2	Yes	64.2	6.3	5	1.3	Yes	No
465	59018	PIGEON PASS RD	70.2	70.7	0.5	1.5	-1.0	No	71.5	1.3	1.5	-0.2	No	No
468	59058	PIGEON PASS RD	56.5	60.6	4.1	5	-0.9	No	61	4.5	5	-0.5	No	No
476	59101	PIGEON PASS RD	71.1	71.7	0.6	1.5	-0.9	No	72.6	1.5	1.5	0.0	No	No
619	61547	PIGEON PASS RD	54.3	57.8	3.5	5	-1.5	No	58.6	4.3	5	-0.7	No	No
620	61550	PIGEON PASS RD	54.3	57.8	3.5	5	-1.5	No	58.6	4.3	5	-0.7	No	No
283	44833	QUINCY ST	#VALUE!	58.4	#VALUE!				58	#VALUE!				
358	57053	QUINCY ST	61.0	57.8	-3.2	3	-6.2	No	55.8	-5.2	3	-8.2	No	No
360	57055	QUINCY ST	#VALUE!	62.7	#VALUE!				61.9	#VALUE!				
361	57056	QUINCY ST	#VALUE!	64.2	#VALUE!				63.5	#VALUE!				
391	57089	QUINCY ST	#VALUE!	61.8	#VALUE!				62	#VALUE!				
397	57098	QUINCY ST	#VALUE!	54.4	#VALUE!				53.9	#VALUE!				
422	58407	QUINCY ST	#VALUE!	58.4	#VALUE!				57.6	#VALUE!				
438	58452	QUINCY ST	#VALUE!	64.7	#VALUE!				65	#VALUE!				
607	60146	QUINCY ST	#VALUE!	62.0	#VALUE!				61.3	#VALUE!				
295	48295	RECHE CANYON RD	68.9	70.4	1.5	1.5	0.0	No	70.5	1.6	1.5	0.1	Yes	Yes
332	56976	RECHE CANYON RD	63.7	45.8	-17.9	3	-20.9	No	45.7	-18.0	3	-21.0	No	No
239	41056	RECHE VISTA DR	70.2	72.7	2.5	1.5	1.0	Yes	72.8	2.6	1.5	1.1	Yes	No
400	57127	RECHE VISTA DR	70.2	72.7	2.5	1.5	1.0	Yes	72.8	2.6	1.5	1.1	Yes	No
418	58403	RECHE VISTA DR	70.2	72.7	2.5	1.5	1.0	Yes	72.8	2.6	1.5	1.1	Yes	No
592	59628	RECHE VISTA DR	70.2	72.7	2.5	1.5	1.0	Yes	72.8	2.6	1.5	1.1	Yes	No
608	60147	RECHE VISTA DR	70.2	72.7	2.5	1.5	1.0	Yes	72.8	2.6	1.5	1.1	Yes	No
31	11628	REDLANDS BLVD	71.0	75.3	4.3	1.5	2.8	Yes	75.3	4.3	1.5	2.8	Yes	No
32	11629	REDLANDS BLVD	71.5	74.1	2.6	1.5	1.1	Yes	73.9	2.4	1.5	0.9	Yes	No
33	11630	REDLANDS BLVD	70.2	73.2	3.0	1.5	1.5	Yes	73.2	3.0	1.5	1.5	Yes	No
49	27862	REDLANDS BLVD	71.7	73.9	2.2	1.5	0.7	Yes	73.8	2.1	1.5	0.6	Yes	No
50	27863	REDLANDS BLVD	71.4	73.8	2.4	1.5	0.9	Yes	73.6	2.2	1.5	0.7	Yes	No
51	27864	REDLANDS BLVD	69.9	74.3	4.4	1.5	2.9	Yes	74.2	4.3	1.5	2.8	Yes	No
52	27865	REDLANDS BLVD	69.9	74.3	4.4	1.5	2.9	Yes	74.2	4.3	1.5	2.8	Yes	No
219	36247	REDLANDS BLVD	72.6	75.2	2.6	1.5	1.1	Yes	75.3	2.7	1.5	1.2	Yes	No
309	52667	REDLANDS BLVD	71.0	74.1	3.1	1.5	1.6	Yes	73.9	2.9	1.5	1.4	Yes	No
310	52670	REDLANDS BLVD	71.0	75.3	4.3	1.5	2.8	Yes	75.3	4.3	1.5	2.8	Yes	No
312	52673	REDLANDS BLVD	71.0	75.3	4.3	1.5	2.8	Yes	75.3	4.3	1.5	2.8	Yes	No
313	52675	REDLANDS BLVD	71.0	77.1	6.1	1.5	4.6	Yes	77	6.0	1.5	4.5	Yes	No
323	53492	REDLANDS BLVD	71.4	73.8	2.4	1.5	0.9	Yes	73.6	2.2	1.5	0.7	Yes	No
362	57057	REDLANDS BLVD	70.2	73.2	3.0	1.5	1.5	Yes	73.2	3.0	1.5	1.5	Yes	No
368	57065	REDLANDS BLVD	69.9	74.3	4.4	1.5	2.9	Yes	74.2	4.3	1.5	2.8	Yes	No
372	57069	REDLANDS BLVD	70.2	73.2	3.0	1.5	1.5	Yes	73.2	3.0	1.5	1.5	Yes	No
380	57078	REDLANDS BLVD	71.0	75.3	4.3	1.5	2.8	Yes	75.3	4.3	1.5	2.8	Yes	No
388	57086	REDLANDS BLVD	70.2	73.2	3.0	1.5	1.5	Yes	73.2	3.0	1.5	1.5	Yes	No
417	58396	REDLANDS BLVD	72.6	75.1	2.5	1.5	1.0	Yes	75.2	2.6	1.5	1.1	Yes	No
168	28558	RIVERSIDE DR	67.4	59.4	-8.0	1.5	-9.5	No	59.5	-7.9	1.5	-9.4	No	No
293	48031	RIVERSIDE DR	57.0	65.0	8.0	5	3.0	Yes	65	8.0	5	3.0	Yes	No
286	46264	SAN MICHELLE AV	50.0	55.8	5.8	5	0.8	Yes	57.5	7.5	5	2.5	Yes	No
291	48029	SAN MICHELLE AV	50.0	52.1	2.1	5	-2.9	No	53.3	3.3	5	-1.7	No	No
349	57044	SAN MICHELLE AV	50.0	52.1	2.1	5	-2.9	No	53.3	3.3	5	-1.7	No	No
171	28675	SOUTHWALK ST	67.5	71.3	3.8	1.5	2.3	Yes	71.7	4.2	1.5	2.7	Yes	No
541	59565	SOUTHWALK ST	67.5	71.3	3.8	1.5	2.3	Yes	71.7	4.2	1.5	2.7	Yes	No
278	44828	STREET E	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
385	57083	STREET E	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
387	57085	STREET E	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
416	58395	STREET E	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
611	60150	STREET E	#VALUE!	73.4	#VALUE!				73.4	#VALUE!				
53	28114	STREET F	#VALUE!	69.0	#VALUE!				69	#VALUE!				
373	57071	STREET F	#VALUE!	69.0	#VALUE!				69	#VALUE!				
376	57074	STREET F	#VALUE!	69.0	#VALUE!				69	#VALUE!				
411	58350	STREET F	#VALUE!	69.0	#VALUE!				69	#VALUE!				
615	60173	STREET F	#VALUE!	69.0	#VALUE!				69	#VALUE!				
9	11524	SUNNYMEAD BLVD	62.9	68.9	6.0	3	3.0	Yes	69	6.1	3	3.1	Yes	No
21	11547	SUNNYMEAD BLVD	68.8	71.5	2.7	1.5	1.2	Yes	71.2	2.4	1.5	0.9	Yes	No
22	11548	SUNNYMEAD BLVD	66.9	70.6	3.7	1.5	2.2	Yes	70.1	3.2	1.5	1.7	Yes	No
23	11550	SUNNYMEAD BLVD	68.6	70.8	2.2	1.5	0.7	Yes	70.8	2.2	1.5	0.7	Yes	No
24	11551	SUNNYMEAD BLVD	59.6	66.9	7.3	5	2.3	Yes	66.7	7.1	5	2.1	Yes	No
132	28459	SUNNYMEAD BLVD	59.4	67.1	7.7	5	2.7	Yes	67.5	8.1	5	3.1	Yes	No
133	28460	SUNNYMEAD BLVD	61.4	68.9	7.5	3	4.5	Yes	68.9	7.5	3	4.5	Yes	No
512	59483	SUNNYMEAD BLVD	61.4	68.8	7.4	3	4.4	Yes	68.8	7.4	3	4.4	Yes	No
562	59592	SUNNYMEAD BLVD	66.8	70.3	3.5	1.5	2.0	Yes	69.8	3.0	1.5	1.5	Yes	No
566	59596	SUNNYMEAD BLVD	68.8	71.5	2.7	1.5	1.2	Yes	71.2	2.4	1.5	0.9	Yes	No
586	59618	SUNNYMEAD BLVD	59.6</											

9504 Moreno Valley GPU  
Traffic Noise Increase Calculations

183	28703	TOWN CIR	66.5	59.0	-7.5	1.5	-9.0	No	58.5	-8.0	1.5	-9.5	No	No
271	44812	TOWN CIR	64.8	56.6	-8.2	3	-11.2	No	57.3	-7.5	3	-10.5	No	No
272	44813	TOWN CIR	64.6	52.7	-11.9	3	-14.9	No	54.1	-10.5	3	-13.5	No	No
273	44814	TOWN CIR	64.8	56.6	-8.2	3	-11.2	No	57.3	-7.5	3	-10.5	No	No
274	44816	TOWN CIR	66.5	55.9	-10.6	1.5	-12.1	No	56.7	-9.8	1.5	-11.3	No	No
414	58353	TOWN CIR	66.5	69.1	2.6	1.5	1.1	Yes	69.3	2.8	1.5	1.3	Yes	No
530	59552	TOWN CIR	64.6	69.1	4.5	3	1.5	Yes	69.3	4.7	3	1.7	Yes	No
531	59553	TOWN CIR	64.6	52.7	-11.9	3	-14.9	No	54.1	-10.5	3	-13.5	No	No
536	59560	TOWN CIR	66.5	65.5	-1.0	1.5	-2.5	No	65.7	-0.8	1.5	-2.3	No	No
537	59561	TOWN CIR	64.6	52.7	-11.9	3	-14.9	No	54.1	-10.5	3	-13.5	No	No
250	41069	TOWNGATE AVE	65.6	71.2	5.6	1.5	4.1	Yes	71.4	5.8	1.5	4.3	Yes	No
251	41070	TOWNGATE AVE	65.6	71.2	5.6	1.5	4.1	Yes	71.4	5.8	1.5	4.3	Yes	No
220	36248	VIA DEL LAGO	64.2	68.7	4.5	3	1.5	Yes	68.5	4.3	3	1.3	Yes	No
240	41057	VIA DEL LAGO	60.0	63.8	3.8	5	-1.2	No	63.4	3.4	5	-1.6	No	No
248	41067	VIA DEL LAGO	62.1	64.8	2.7	3	-0.3	No	64.6	2.5	3	-0.5	No	No
415	58354	VIA DEL LAGO	64.2	69.0	4.8	3	1.8	Yes	68.8	4.6	3	1.6	Yes	No

Impacted Segments: 338

Impacted Segments: 339

## **Significant Traffic Noise Increases**

9504 Moreno Valley GPU  
Significant Traffic Noise Increases

Road	Segment	Existing	2040 GPU	ΔdB
Alessandro Boulevard	I-215 to Frederick Street	71.7 - 76.3	73.5 - 78.1	1.8 - 2.6
Alessandro Boulevard	Graham Street to Quincy Street	61.7 - 71.5	65.3 - 74.8	2.0 - 6.4
Alta Calle	Via Del Lago to Lake Perris Drive	63.7 - 63.8	67.4 - 68.7	3.6 - 4.9
Box Springs Road	I-215 to Pigeon Pass Road	68.0 - 69.5	71.0 - 72.1	2.6 - 3.0
Cactus Avenue	I-215 to Day Street	77	79.1	2.1
Cactus Avenue	Graham Street to Heacock Street	76	78.0 - 78.1	2.0 - 2.1
Cactus Avenue	Kitching Street to Lasselle Street	70.1	71.7	1.6
Cactus Avenue	Nason Street to Redlands Boulevard	65.5 - 68.8	70.8 - 72.4	3.2 - 5.5
Cottonwood Avenue	Elsworth Street to Morrison Street	54.9 - 67.1	62.6 - 69.6	2.3 - 7.7
Cottonwood Avenue	Moreno Beach Drive to Quincy Street	64.4	67.5 - 70.3	3.1 - 5.9
Day Street	Box Springs Road to Cactus Avenue	62.6 - 70.6	67.6 - 73.0	1.8 - 9.0
Dracaea Avenue	Indian Street to Perris Boulevard	56.1	61.5	5.4
Dracaea Avenue	Kitching Street to Lasselle Street	60.2	63.3	3.1
E Oleander Avenue	Lasselle Street to Alta Calle	63.3	61.6	8.3
Elsworth Street	Alessandro Boulevard to Cactus Avenue	65.6	70.6	5
Eucalyptus Avenue	I-215 to Moreno Beach Drive	62.0 - 68.8	69.2 - 71.8	2.0 - 7.6
Eucalyptus Avenue	Redlands Boulevard to Theodore Avenue	70.9	73.4	2.5
Evans Road	South of E Oleander Avenue	70.2	73	2.8
Frederick Street	Townsgate Avenue to Sunnymead Boulevard	70.7 - 71.3	73.0 - 73.5	2.2 - 2.3
Genetian Avenue	Heacock Street to Perris Boulevard	61.0 - 65.8	66.0 - 68.0	2.1 - 5.5
Gilman Springs Road	SR-60 to State Street	75.8 - 76.1	78.0 - 78.6	1.9 - 2.8
Graeber Street	Cactus Avenue to Riverside Drive	64.5 - 65.9	69.2	3.3 - 4.7
Graham Street	Sunnymead Boulevard to Eucalyptus Avenue	62.3	66.5	4.2
Graham Street	Dracaea Avenue to Cottonwood Avenue	58.6	64.2	5.6
Graham Street	Alessandro Boulevard to Cactus Avenue	62.9 - 64.3	66.2 - 68.7	3.3 - 4.4
Heacock Street	Cactus Avenue to San Michelle Avenue	68.4 - 72.3	70.3 - 74.9	1.6 - 3.5
Hidden Springs Drive	Pigeon Pass Road to Mountain View Road	47.4	64.3	16.9
Indian Street	SR-60 to Eucalyptus Avenue	60.3 - 61.0	64.5 - 65.0	3.5 - 4.3
Indian Street	John F Kennedy Drive to Iris Avenue	61.0 - 61.2	64.2 - 64.9	3.1 - 3.9
Indian Street	South of Krameria Avenue	62.1 - 63.6	65.8 - 69.6	3.2 - 6.9
Iris Avenue	Perris Boulevard to Via Del Lago	68.7 - 73.0	72.2 - 77.1	1.8 - 5.4
Ironwood Avenue	Graham Street to Heacock Street	66.5	69	2.5
Ironwood Avenue	Perris Boulevard to Highland Boulevard	47.5 - 67.0	57.7 - 69.5	1.7 - 10.2
Jack Rabbit Trail	Northeast of Gilman Springs Road	66.3	70.1	3.8
John F Kennedy Drive	Heacock Street to Indian Street	68.4	70.1	1.7
John F Kennedy Drive	Kitching Street to Lasselle Street	68.1	70.5	2.4
John F Kennedy Drive	Moreno Beach Drive to Redlands Boulevard	69.5 - 70.9	72.6 - 73.4	2.5 - 3.8
Kitching Street	Sunnymead Boulevard to Alessandro Boulevard	59.5 - 66.9	64.6 - 70.6	3.3 - 5.1
Kitching Street	Iris Avenue to Krameria Avenue	64.3	69	4.7
Lake Perris Drive	South of Alta Calle	58.2 - 63.4	65.0 - 70.0	4.6 - 6.8
Lasselle Street	Eucalyptus Avenue to Evans Road	63.6 - 72.4	68.3 - 74.2	1.7 - 5.8
Manzanita Avenue	Indian Street to Reche Vista Drive	53.3 - 54.4	60.1 - 60.4	6.0 - 6.8
Moreno Beach Drive	Ironwood Avenue to Eucalyptus Avenue	67.8 - 68.6	70.4 - 74.7	3.2 - 6.1
Moreno Beach Drive	Cottonwood Avenue to Cactus Avenue	69.6 - 69.8	72.0 - 72.4	2.2 - 2.6
Moreno Beach Drive	John F Kennedy Drive to Via Del Lago	72.2	75.4	3.2
N Webster Avenue	Harley Knox Boulevard to E Marjham Street	70.2 - 71.1	73.6	2.5 - 3.1
Nason Street	SR-60 to Iris Avenue	66.5 - 68.3	70.3 - 72.8	2.0 - 5.6
Old I-215 Frontage Road	Eucalyptus Avenue to Cactus Avenue	62.0 - 69.0	69.0 - 75.1	3.9 - 7.0
Perris Boulevard	Reche Vista Drive to Sunnymead Boulevard	67.2 - 72.9	71.6 - 74.5	1.6 - 4.4
Perris Boulevard	South of Alessandro Boulevard	69.0 - 72.5	73.3 - 76.1	1.8 - 5.7
Pigeon Pass Road	Hidden Springs Drive to Sunnymead Ranch Park	57.6 - 57.9	63.9 - 64.1	6.2 - 6.3
Reche Vista Drive	North of Heacock Street	70.2	72.7	2.5
Redlands Boulevard	San Timoteo Canyon Road to Cactus Avenue	69.9 - 72.6	73.2 - 75.3	2.2 - 6.1
Riverside Drive	Meyer Street to Graeber Street	57	65	8
San Michelle Avenue	Indian Street to Perris Boulevard	50	55.8	5.8
Sunnymead Boulevard	Frederick Street to Kitching Street	59.4 - 68.8	66.9 - 71.5	2.7 - 7.7
Sunnymead Ranch Park	Lake Vista Road to Heacock Street	53.5 - 66.9	63.8 - 68.7	1.8 - 10.3
Theodore Avenue	SR-60 to Alessandro Boulevard	64.7 - 67.4	69.7 - 80.0	5.0 - 13.3
Town Circle	North of Campus Parkway	64.6 - 66.5	69.1	2.6 - 4.5
Towngate Avenue	Eucalyptus Avenue to Frederick Street	65.6	71.2	5.6
Via Del Lago	John F Kennedy Drive to Alta Calle	64.2	68.7 - 69.0	4.5 - 4.8

**CREATE Rail Noise Model**

Noise Model Based on Federal Transit Administration General Transit Noise Assessment  
 Developed for Chicago Create Project  
 Copyright 2006, HMMH Inc.  
 Case: Moreno Valley GPU

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	58	45	52
Source 1	47	41	41
Source 2	47	40	40
Source 3	53	34	48
Source 4	55	36	49
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS							
Parameter	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7
Source Num.	Commuter Diesel Locomotive	2 Commuter Rail Cars	3 Freight Locomotive	9 Freight Cars	10 Freight Cars		
Distance (source to receiver)	200	200	200	200	200		
Daytime Hours (7 AM - 10 PM)	speed (mph)	60	60	60	60		
	trains/hour	0.266667	0.266667	0.266667	0		
Nighttime Hours (10 PM - 7 AM)	speed (mph)	60	60	60	60		
	trains/hour	0.266667	0.266667	0.266667	0.222222		
Wheel Flats?		% of cars w/ wheel flats		% of cars w/ wheel flats			
Jointed Track?	Y/N	Y/N	Y/N	Y/N	Y/N		
Embedded Track?	Y/N	Y/N	Y/N	Y/N	Y/N		
Aerial Structure?	Y/N	Y/N	Y/N	Y/N	Y/N		
Barrier Present?	Y/N	Y/N	Y/N	Y/N	Y/N		
Intervening Rows of Buildings	number of rows	0	number of rows	0	number of rows	0	number of rows

SOURCE REFERENCE LIST	
Source	Number
Commuter Electric Locomotive	1
Commuter Diesel Locomotive	2
Commuter Rail Cars	3
RRT/LRT	4
AGT, Steel Wheel	5
AGT, Rubber Tire	6
Monorail	7
Maglev	8
Freight Locomotive	9
Freight Cars	10
Hopper Cars (empty)	11
Hopper Cars (full)	12
Crossover	13
Automobiles	14
City Buses	15
Commuter Buses	16
Rail Yard or Shop	17
Layover Tracks	18
Bus Storage Yard	19
Bus Op. Facility	20
Bus Transit Center	21
Parking Garage	22
Park & Ride Lot	23

CALCULATIONS								
Term	Sou 1	Sou 2	Sou 3	Sou 4	Sou 5	Sou 6	Sou 7	Sou 8
SERef	92.0	82.0	97.0	100.0	0.0	0.0	0.0	0.0
C1 - Coef	-10.0	20.0	10.0	20.0	0.0	0.0	0.0	0.0
C1 - Denom	50.0	50.0	40.0	40.0	0.0	0.0	0.0	0.0
C1 - Day Num	60.00	60.00	60.00	60.00	0.00	0.00	0.00	0.00
C1 - Night Num	60.00	60.00	60.00	60.00	0.00	0.00	0.00	0.00
C1 - Day	-0.8	1.6	1.8	3.5	0.0	0.0	0.0	0.0
C1 - Night	-0.8	1.6	1.8	3.5	0.0	0.0	0.0	0.0
C2 - Coef	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
C2 - Denom	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
C2 - Day Num	0.27	0.27	0.01	0.01	0.00	0.00	0.00	0.00
C2 - Night Num	0.27	0.27	0.22	0.22	0.00	0.00	0.00	0.00
C2 - Day	-5.7	-5.7	-20.0	-20.0	0.0	0.0	0.0	0.0
C2 - Night	-5.7	-5.7	-6.5	-6.5	0.0	0.0	0.0	0.0
C3 - Coef	10.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0
C3 - Denom	1.0	1.0	1.0	2000.0	0.0	0.0	0.0	0.0
C3 - Day Num	1.00	5.00	1.00	1000.00	0.00	0.00	0.00	0.00
C3 - Night Num	1.00	5.00	1.00	1000.00	0.00	0.00	0.00	0.00
C3 - Day	0.0	7.0	0.0	-3.0	0.0	0.0	0.0	0.0
C3 - Night	0.0	7.0	0.0	-3.0	0.0	0.0	0.0	0.0
Leq50ft - Day	49.9	49.2	43.2	44.9	0.0	0.0	0.0	0.0
Leq50ft - Night	49.9	49.2	56.6	58.4	0.0	0.0	0.0	0.0
Ldn50ft	56.3	55.6	62.4	64.2	6.4	6.4	6.4	6.4
Dist Coef	15.0	15.0	15.0	15.0	0.0	0.0	0.0	0.0
Adj. Dist	-9.0	-9.0	-9.0	-9.0	0.0	0.0	0.0	0.0
Adj. Wheel Flats	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adj. Jointed	0	0	0	0	0	0	0	0
Adj. Embed	0	0	0	0	0	0	0	0
Adj. Aerial	0	0	0	0	0	0	0	0
Adj. Shield	0	0	0	0	0	0	0	0
Leq - Day	40.8	40.2	34.1	35.9	0.0	0.0	0.0	0.0
Leq - Night	40.8	40.2	47.6	49.3	0.0	0.0	0.0	0.0
Ldn	47.2	46.6	53.4	55.1	0.0	0.0	0.0	0.0
Need Land Use	0							
Calc Leq	0							

REFERENCE DATA																					
Num	Desc	Ref SEL	Dist Term	Term 1				Term 2				Term 3				Jointed	Embedded	Aerial	Barrier	Combine 1&2?	
				Desc	Denom	Min	Coef	Desc	Denom	Min	Coef	Desc	Denom	Min	Coef						
0		0			0	0	0														
1	Commuter Electric Locomotive	90	15	speed (mph)	50	20	10.0	trains/hour	1	0.01	10.0	locos/train	1	1	10	5.0	3.0	4.0	-5.0	0.0	
2	Commuter Diesel Locomotive	92	15	speed (mph)	50	20	-10.0	trains/hour	1	0.01	10.0	locos/train	1	1	10	5.0	3.0	4.0	-5.0	0.0	
3	Commuter Rail Cars	82	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10	5.0	3.0	4.0	-5.0	0.0	
4	RRT/LRT	82	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10	5.0	3.0	4.0	-5.0	0.0	
5	AGT, Steel Wheel	80	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10				-5.0	0.0	
6	AGT, Rubber Tire	78	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10				-5.0	0.0	
7	Monorail	82	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10				-5.0	0.0	
8	Maglev	72	15	speed (mph)	50	20	20.0	trains/hour	1	0.01	10.0	cars/train	1	1	10			4.0	-5.0	0.0	
9	Freight Locomotive	97	15	speed (mph)	40	20	10.0	trains/hour	1	0.01	10.0	locos/train	1	1	10	5.0	3.0	4.0	-5.0	0.0	
10	Freight Cars	100	15	speed (mph)	40	20	20.0	trains/hour	1	0.01	10.0	cars/train	2000	40	10	5.0	3.0	4.0	-5.0	0.0	
11	Hopper Cars (empty)	104	15	speed (mph)	40	20	20.0	trains/hour	1	0.01	10.0	cars/train	2000	40	10	5.0	3.0	4.0	-5.0	0.0	
12	Hopper Cars (full)	100	15	speed (mph)	40	20	20.0	trains/hour	1	0.01	10.0	cars/train	2000	40	10	5.0	3.0	4.0	-5.0	0.0	
13	Crossover	100	25	trains/hour	1	0.01	10.0	in of one train	3600	0.01	10.0					3.0	4.0		-5.0	0.0	
14	Automobiles	73	15	speed (mph)	50	30	28.1	vehicles/hour	1	0.01	10.0								-5.0	0.0	
15	City Buses	84	15	speed (mph)	50	30	23.9	vehicles/hour	1	0.01	10.0								-5.0	0.0	
16	Commuter Buses	88	15	speed (mph)	50	30	14.6	vehicles/hour	1	0.01	10.0								-5.0	0.0	
17	Rail Yard or Shop	118	25	trains/hour	20	0.01	10.0												-5.0	0.0	
18	Layover Tracks	109	25	trains/hour	1	0.01	10.0												-5.0	0.0	
19	Bus Storage Yard	111	25	buses/hour	100	0.01	10.0												-5.0	0.0	
20	Bus Op. Facility	114	25	buses/hour	200	0.01	10.0	es serviced/t	60	0.01	10.0								-5.0	1.0	
21	Bus Transit Center	101	25	buses/hour	20	0.01	10.0												-5.0	0.0	
22	Parking Garage	92	25	autos/hour	1000	0.01	10.0												-5.0	0.0	
23	Park & Ride Lot	101	25	autos/hour	2000	0.01	10.0	buses/hour	24	0.01	10.0								-5.0	1.0	

LAND USE DATA	
Category	Ldn/Leq
0	
1	Leq
2	Ldn
3	Leq



# Draft Memorandum

Date: March 30, 2021

To: Michael Lloyd, P.E., City of Moreno Valley

From: Jason D. Pack, P.E.  
Paul Herrmann, P.E.

**Subject: Moreno Valley General Plan Circulation Element Vehicle Miles Traveled (VMT) Impact Assessment**

OC19-0685

---

Fehr & Peers has completed a Transportation Impact Assessment that analyzes Vehicle Miles Traveled in support of the Moreno Valley General Plan. The assessment below is consistent with Senate Bill 743 (SB 743) and the *City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June 2020).

## Approach & Traffic Modeling Methodology

The Riverside County Transportation Analysis Model (RIVTAM) was utilized to estimate VMT for the analysis scenarios. RIVTAM<sup>1</sup> was originally developed to be consistent with the 2012 Southern California Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and was updated to be consistent with the 2016 SCAG RTP/SCS for this effort<sup>2</sup>. This version of RIVTAM uses a 2012 base year and 2040 future year.

---

<sup>1</sup> The Riverside County Model (RIVCOM) is currently under development and will be consistent with the 2020 SCAG RTP/SCS. RIVCOM is anticipated to be completed in Summer 2021 and was not ready for use in this assessment.

<sup>2</sup> Although, the 2020 SCAG RTP/SCS was nearing adoption, land use assumptions were not available when we started this assessment.

To estimate the Existing Baseline (2018) condition for the transportation impact assessment, Fehr & Peers interpolated between the base year (2012) and future year (2040)<sup>3</sup> to the appropriate Baseline condition. Please note that the base year (2012) land use and roadway network were not modified.

For the General Plan scenario modeling, Fehr & Peers worked with Dyett & Bhatia to develop buildout land use assumptions for the Existing General Plan and Proposed General Plan. These land use scenarios are summarized in **Table 1**. As shown in **Table 1**, the overall anticipated growth in the number of households and total number of jobs in the City is not projected to change under the proposed General Plan. However, the General Plan does anticipate a shift to more multi-family households (resulting in a lower population estimate) and a shift in the employment makeup in the City from retail/commercial to office employment.

**Table 1: RIVTAM Model Inputs for General Plan Scenarios**

Land Use	2012 Base Year	2018 Baseline	2040 Existing GP	2018-2040 EXGP Delta	2040 Proposed GP	2018-2040 PGP Delta
Population	194,669	195,177	256,600	61,423	252,179	57,002
Household <sup>1</sup>	51,038	52,008	72,737	20,729	72,737	20,729
Commercial/Retail Employment	21,781	25,007	35,985	10,978	32,209	7,202
Office Employment	4,084	6,090	9,543	3,453	13,625	7,535
Industrial Employment	4,968	13,326	37,708	24,382	37,503	24,177
Total Employment	30,993	44,659	83,573	38,914	83,573	38,914

Notes:

- Households reflect a 94% occupancy rate of available housing units.
- GP = General Plan, EXGP = Existing General Plan, PGP = Proposed General Plan

Fehr & Peers also modified the future year (2040) roadway networks to reflect buildout of the transportation network for the existing General Plan and for the Proposed General Plan as part of the forecasting assessment.

## VMT Impact Criteria

The *City of Moreno Valley Traffic Impact Preparation Guide* (June 2020) outlines methodology for VMT assessment for land use projects and defines adopted thresholds of significance for impact assessment and are defined below. This transportation impact assessment compares VMT generated by the Proposed

---

<sup>3</sup> The 2040 condition of RIVTAM represents the SCAG land use forecast for growth from buildout of the current Moreno Valley General Plan in year 2040.

General Plan (2040) to VMT generated by the Existing Baseline (2018) and to VMT generated by the Existing General Plan Buildout (2040) at a total and per capita level to provide a comprehensive assessment.

### **CEQA VMT Impact Thresholds**

The following are the Moreno Valley thresholds of significance for use as part of the environmental review process under CEQA:

1. A project would have a significant VMT impact if, in the Existing Plus Project scenario<sup>4</sup>, its net VMT per capita (for residential projects) or per employee (for office and industrial projects) exceeds the per capita VMT for Moreno Valley. For all other uses, a net increase in VMT would be considered a significant impact.
2. If a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence. If it is not consistent with the RTP/SCS, then it would have a significant VMT impact if:
  - a. For residential projects its net VMT per capita exceeds the average VMT per capita for Moreno Valley in the RTP/SCS horizon-year.
  - b. For office and industrial projects its net VMT per employee exceeds the average VMT per employee for Moreno Valley in the RTP/SCS horizon year
  - c. For all other land development project types, a net increase in VMT in the RTP/SCS horizon-year would be considered a significant impact.

Note that the Cumulative No Project scenario shall reflect the adopted RTP/SCS; as such, if a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence.

As these thresholds were not intended to specifically address the appropriate methodology and metric for a general plan, the following thresholds of significance are proposed to evaluate the Proposed General Plan:

1. Any increase in the VMT per Service Population/Resident/Employee calculated using the Boundary Method, Production/Attraction Method, or Origin/Destination method compared to the Existing Baseline would be considered a significant impact.

---

<sup>4</sup> It is not a reasonable assessment to add General Plan buildout onto the existing scenario as the General Plan is anticipated to take decades to develop. As such, as part of General Plan assessment, a more appropriate approach is to focus the project-generated VMT assessment on the 2040 horizon, consistent with a horizon that would be more appropriate with the absorption of the General Plan.

2. Any increase in the total VMT or VMT per Service Population/Resident/Employee calculated using the Boundary Method, Production/Attraction Method, or Origin/Destination method compared to the Existing General Plan would be considered a significant impact.

These methodologies and metrics are detailed below.

## **VMT Analysis Methodology**

For all methodologies outlined, VMT can be presented as total VMT or as VMT per Service Population, Resident, or Employee. Total VMT represents all VMT generated in the City on a typical day. VMT per Service Population, Resident, or Employee is an efficiency metric which represents VMT generated on a typical day per person who lives and/or works in the City. VMT per person can be measured as VMT per Resident for residential only projects, VMT per Employee for employment only projects, and VMT per Service Population for projects and land use plans which include both residential and employment uses. Total VMT gives an estimate of the total travel, while VMT per person measures the efficiency of travel.

Total VMT and per person estimates were calculated using the three methodologies outlined below. Please note that there are multiple methods to estimate VMT, and there are limitations in the available VMT assessment tool, RIVTAM, which is a typical four-step travel demand forecasting model. The model steps, which convert person trips to vehicle trips, limit the ability to separate trips by trip purpose while also accounting for all modal trips, as noted further below.

### **Production/Attraction VMT**

The Production/Attraction (PA) method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area and while trips are still tracked by trip purpose. The PA method tracks trips with at least one trip end to/from their ultimate destination unless that destination is outside of the model boundary area (e.g. outside of the SCAG region). Productions are land use types that generate trips (residences) and attractions are land use types that attract trips (employment). Productions and attractions are converted from person trips to vehicle trips for the purposes of calculating VMT.

The PA method allows project VMT to be evaluated based on trip purpose which is consistent with OPR recommendations in the Technical Advisory and the City's guidelines. For example, a single-use project such as an office building could be analyzed based only on the commute VMT, or home-based-work (HBW) attraction VMT per employee; and a residential project could be analyzed based on the home-based (HB) production VMT per resident.

PA matrices do not include external trips that have one trip end outside of the model boundary (IX-XI trips) or truck trips, and therefore do not include those trips in the VMT estimates. This is not consistent with the OPR recommendations that suggest full accounting of VMT should be completed.

### **Origin/Destination VMT**

The Origin/Destination (OD) method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations. The OD method is completed after the final loops of assignment in the travel demand model after person trips are converted to total vehicle trips. Origins are all vehicle trips that start in a specific traffic analysis zone, and destinations are all vehicle trips that end in a specific traffic analysis zone.

The OD method accounts for external and truck trips and therefore provides a more complete estimate of all VMT within the study area. This methodology also estimates VMT consistent with VMT estimates in Air Quality, Noise, and Energy sections of an EIR.

Unfortunately, OD trip matrices do not separate trips by trip purpose, and therefore VMT cannot be calculated by home-based-work (HBW) attraction VMT per employee or home-based (HB) production VMT per resident, but only by total VMT. It should also be noted that, although VMT includes trips to/from the City that originate or are destined to locations outside of the model area, those trip lengths are artificially truncated at the model boundary.

### **Boundary Method VMT**

The boundary method is the sum of all weekday VMT on a roadway network within a designated boundary.<sup>5</sup> Boundary method VMT estimates VMT by multiplying the number of trips on each roadway segment by the length of that segment. This approach includes all trips, including those trips that do not begin or end in the designated boundary and is another way to summarize VMT. This is the only VMT method that captures the effect of cut-through and/or displaced traffic. The boundaries utilized in the assessment below is the Moreno Valley City Boundary and Western Riverside Council of Governments Boundary. The two boundaries provide a focused assessment specific to Moreno Valley while also reviewing the effect of uses in at the

---

<sup>5</sup> OPR recommends against using “arbitrary” boundaries such as City or County lines, however the model-wide results would include all six counties in the model. The addition of a single project in such a large area would be negligible. The only way to distinguish between no project and plus project results to determine the effect on VMT is to set a boundary at a scale where the effect on VMT from an individual project can be measured. Therefore, Fehr & Peers recommends the City or sub-regional level boundary would be an appropriate scale for this methodology.

edge of the City that may be truncated by the City Boundary. Land use assumptions for WRCOG are provided as **Attachment B**.

## VMT Estimates

The VMT estimates performed for each scenario are presented in **Table 2**. As noted previously, the RIVTAM base year model is year 2012 and the baseline 2018 scenario was estimated by interpolating between the 2012 base year model and the 2040 Existing General Plan Model. Notable takeaways from the VMT estimates include:

- The Total VMT, Home-Based Production (HBP) VMT, and Home-Based-Work Attraction (HBWA) VMT generated by the City are lower in the Proposed General Plan than the Existing General Plan in year 2040.
- HBP VMT/Resident and HBWA VMT/Employee are lower in the Proposed General Plan than the Existing General Plan which indicates a more efficient mix of jobs and households in the Proposed Plan as residents and employees have shorter commutes on average.
- HBP VMT/Resident is forecast to improve with both plans compared to Existing Baseline (2018), though the Proposed General Plan reduction is twice as large as the Existing General Plan.
- Boundary VMT is higher under the Proposed General Plan than the Existing General Plan within the Moreno Valley City boundary and lower within the WRCOG boundary. Under both boundaries the Boundary VMT/SP is higher under the Proposed General Plan.
- Many factors contribute to changes in Boundary VMT including the amount of cut through traffic that bypasses the City. It should be noted that the 2040 Boundary VMT estimates are within 0.09-0.66% of each other which is within the default 1% convergence criteria programmed in the traffic model runs; this implies that the differences in the estimates could be attributed to "model noise", or inherent randomness between model runs.

**Table 2: VMT Summary**

Land Use	2012 Base Year	2018 Baseline Interpolation	2040 Existing GP	2040 Proposed GP
Population	194,669	195,177	256,600	252,179
Employment	30,993	44,659	83,573	83,573
Service Population	225,662	239,836	340,173	335,752
Total OD VMT	5,514,827	5,985,420	9,132,168	9,048,076
OD VMT/SP <sup>3</sup>	24.44	24.96	26.86	<b>26.96</b>
HBP VMT <sup>1</sup>	2,472,986	2,467,621	3,187,219	3,046,905
HBP VMT/Resident	12.70	12.64	12.42	12.08
HBWA VMT <sup>2</sup>	340,886	524,833	1,211,220	1,201,670
HBWA VMT/Employee	11.00	11.75	14.51	<b>14.40</b>
City Boundary VMT <sup>4</sup>	1,686,559	1,844,892	2,888,203	<b>2,907,283</b>
City Boundary VMT/SP	7.47	7.69	8.49	<b>8.66</b>
WRCOG Boundary VMT	37,762,840	43,066,465	64,353,390	64,296,920
WRCOG Boundary VMT/SP <sup>6</sup>	16.73	17.15	18.71	<b>18.72</b>

Notes:

1. HBP VMT = Home-based production VMT; VMT generated by trips originating or ending at homes in Moreno Valley.
2. HBWA = Home-based-work attraction VMT; VMT generated by trips originating or ending at employment centers in Moreno Valley.
3. SP = Service Population; the sum of population and employment.
4. The boundary method VMT estimated for Existing General Plan and Proposed General Plan are within 1%, which could be a function of model noise related to the default convergence criteria (0.01) in RIVTAM.
5. Items identified in **bold** are higher than either 2018 Baseline or 2040 Existing General Plan.
6. Land use assumptions for WRCOG are provided as Attachment B.

## VMT Impact Assessment

Based on the VMT metrics presented in **Table 2**, the Proposed General Plan would result in a net increase in VMT per Resident, Employee or Service Population; or an overall net increase in VMT in the RTP/SCS horizon-year and are considered significant impacts:

- OD VMT/SP is higher in the Proposed General Plan than the Existing General Plan in year 2040
- OD VMT/SP increases from Existing Baseline (2018) to Proposed General Plan (2040)
- HBWA VMT/Emp increases from Existing Baseline (2018) to Proposed General Plan (2040)
- Boundary VMT and Boundary VMT/SP are higher in the Proposed General Plan than the Existing General Plan

Goals, policies and actions from the Moreno Valley General Plan Circulation Element that are anticipated to reduce VMT are provided as **Attachment A**. However, it is not anticipated that VMT reductions associated with TDM measures would be large enough to guarantee that significant impacts could be fully mitigated.

Therefore, the Proposed General Plan is anticipated to result in a **significant and unavoidable transportation impact related to VMT**.

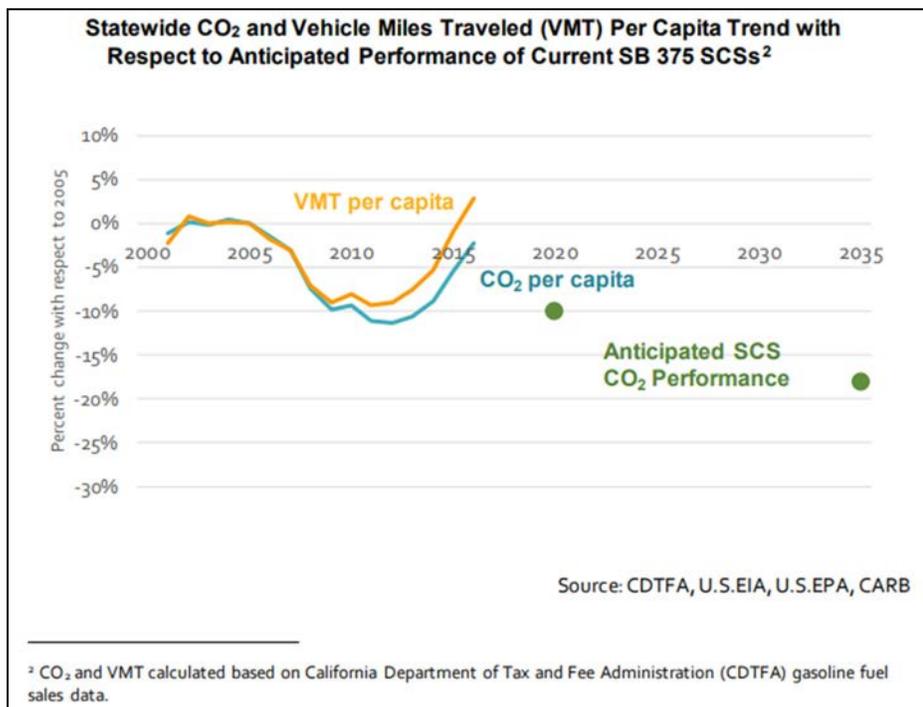
## Other Impact Analysis Evidence

When making a final VMT impact determination, other available evidence related to VMT trends should be considered. This study identified the following two relevant studies.

- *2018 Progress Report, California's Sustainable Communities and Climate Protection Act*, California Air Resources Board, November 2018 (referred to as the Progress Report in the remainder of this document).
- *California Air Resources Board Improved Program Measurement Would Help California Work More Strategically to Meet Its Climate Change Goals*, Auditor of the State of California, February 2021 (referred to as the Audit Report in the remainder of this document).

The Progress Report measures the effect of Senate Bill 375 (SB 375) revealing that VMT and Greenhouse Gas (GHG) per capita increased in California between 2010 and 2016 and are trending upward, as shown in **Figure 1**.

Figure 1: VMT/Capita Trends



The Audit Report is a more recent assessment of California Air Resources Board's (ARB's) GHG reduction programs, which also found that VMT and its associated GHG emissions were trending upward through 2018. Per the audit, the state is not on track to achieve 2030 GHG reduction goals, and emissions from transportation have not been declining.

The evidence from these two reports does not refute the project's VMT impact finding but does suggest greater action on the part of the state may be needed to achieve the state's GHG reduction goals. The project contributes to the basic objectives of SB 743 for local agencies such as adding development in a land use efficient area where the short-trip lengths to destinations allows for more multi-modal choices and low VMT generation. The monitoring of state performance indicates that the state may need to take further action to discourage vehicle travel (i.e., increasing the cost of driving) while reducing the barriers or constraints that prevent more efficient use of vehicles and greater use of transit, walking, and bicycling. If these types of actions are taken, residents and employees in Moreno Valley would have multiple travel options to further reduce their vehicle use because of the proximity to existing destinations.

## **Analysis Limitations**

This analysis was performed in March 2021 during the COVID-19 pandemic. The COVID-19 response has dramatically changed human activities and associated travel patterns. Performing more activities from home was already a trend due to the internet, but COVID-19 accelerated transitions to working and shopping from home. In addition, other disruptive trends related to demographic changes, new travel choices such as Uber and Lyft, and the potential for autonomous vehicle (AV) travel make predicting future travel demand and outcomes less certain. Given these limitations of modeling and forecasting, the general consistency of the project with the broader SB 743 objectives and the legislative intent of CEQA noted below may warrant greater emphasis in the VMT impact assessment.

Public Resources Code 21001. ADDITIONAL LEGISLATIVE INTENT

*The Legislature further finds and declares that it is the policy of the state to:*

*(d) 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.*

## **VMT Estimates for Greenhouse Gas Assessment**

VMT estimates were performed for the project using the Recommendations of the Regional Targets Advisory Committee (RTAC) methodology to utilize in the Greenhouse Gas Assessment. The estimates were performed using the Origin-Destination approach. The RTAC Methodology specifies to apply 100% of internal to internal trips (ii trips) and 50% of internal to external or external to internal trips (ix & xi trips). These estimates for each scenario and by vehicle type (passenger car, light truck, medium truck and heavy truck) are provided as **Attachment C**. Please note that these estimates differ from **Table 2** as those estimates applied 100% of ix & xi trips, consistent with transportation impact analysis.

## **Attachment A - Moreno Valley Goals, Policies, and Actions related to VMT Reduction**

C.2-1 Design, plan, maintain, and operate streets using complete streets principles for all types of transportation projects including design, planning, construction, maintenance, and operations of new and existing streets and facilities. Encourage street connectivity that aims to create a comprehensive, integrated, connected network for all modes.

C.2-2 Implement a layered network approach by prioritizing conflicting modes, such as trucks and bicyclists, on alternative parallel routes to provide safe facilities for each mode.

C.2-9 Require connectivity and accessibility to a mix of land uses that meets residents' daily needs within walking distance. Typically, this means creating walkable neighborhoods with block lengths between 330 feet and 660 feet in length, based on divisions of the square mile grid on which the city is laid out.

C.2-10 Ensure that complete streets applications integrate the neighborhood and community identity into the street design and retrofits. This can include special provisions for pedestrians and bicycles that complement the context of each community.

C.2-B Continue to implement the Bicycle Master Plan to provide low-stress bicycle network improvements citywide.

C.2-C Develop curb space management guidelines that incorporate best practices and strategies for deliveries and drop-offs in commercial and mixed-use areas.

C.2-F As new transportation technologies and mobility services, including connected and autonomous vehicles, electric vehicles, electric bicycles and scooters, and transportation network companies (e.g., Uber and Lyft) are used by the public, review and update City policies and plans to maximize the benefit to the public of such technologies and services without adversely affecting the City's transportation network. Updates to the City's policies and plans may cover topics such as electric vehicle charging stations, curb space management, changes in parking supply requirements, shared parking, electric scooter use policies, etc.

C.2-H Evaluate opportunities to implement roundabouts as traffic control as new development projects are proposed, considering safety, traffic calming, cost, maintenance and greenhouse gas reduction related to idling.

C.3-4 Require development projects to complete traffic impact studies that conduct vehicle miles traveled analysis and level of service assessment as appropriate per traffic impact study guidelines.

C.3-7 Support regional efforts in the development of a VMT mitigation impact fee program.

C.3-10 Employ parking management strategies, such as shared parking in mixed use areas, on-street residential parking, and spill-over parking to avoid construction of unnecessary parking.

C.4-1 Support the development of highspeed transit linkages or express routes connecting major destinations within the city and beyond, including the Metrolink Station, that would benefit the residents and employers in Moreno Valley.

C.4-3 Support the establishment of a Transit Center/Mobility Hub in the Downtown Center.

C.4-4 All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.

C.4-5 Recognize that high-speed streets, high-volume streets and truck routes can increase pedestrian and bicycle stress levels and decrease comfortability. Provide increased buffers and protected bicycle lanes in high-stress areas, where feasible. Provide landscaped buffers where feasible to separate pedestrian environments from the travel way adjacent to motor vehicles. Provide convenient and high-visibility crossings for pedestrians.

C.4-A Prepare and maintain a Pedestrian Access Plan supporting a safer and more convenient network of identified pedestrian routes with access to major employment centers, shopping districts, regional transit centers, schools, and residential neighborhoods; the plan should address safer routes to schools, safer routes for seniors, and increase accessibility for persons with disabilities.

C.4-B The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

C.4-C Continue on-going coordination with transit authorities toward the expansion of transit facilities into newly developed areas.

C.4-D Work with major employers, the hospital complexes, and Moreno Valley College to study alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C.4-E Pursue regional, state and federal grant opportunities to fund design and construction of the City bikeway system.

C.5-1 Work to reduce VMT through land use planning, enhanced transit access, localized attractions, and access to non-automotive modes.

C.5-2 Encourage public transportation that addresses the particular needs of transit-dependent individuals, including senior citizens, the disabled, and low -income residents.

C.5-3 Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.

C.5-4 Particularly in corridors and centers, work with transit service providers to provide first-rate amenities to support pedestrian, bicycle and transit usage, such as bus shelters and benches, bike racks on buses, high-visibility crossings, and modern bike storage.

C.5-5 Encourage local employers to implement TDM strategies, including shared ride programs, parking cash out, transit benefits, allowing telecommuting and alternative work schedules.C.5-A Maintain a list of recommended Transportation Demand Management (TDM) strategies for employers and new developments.

C.5-A Keep the City's traffic impact study guidelines current and revise the CEQA threshold of significance for VMT as appropriate.

C.5-B Maintain a list of recommended Transportation Demand Management (TDM) strategies for employers and new developments.

C.5-C Remain flexible in the pursuit and adoption of transportation funding mechanisms that fund innovative transportation solutions.

C.5-D Work with RTA and Metrolink to increase transit service frequency, speed, and reliability and increase ridership. Strengthen linkages and access to the Metrolink Station.

C.5-E Integrate transit access and information systems into employment centers, major destinations and new multi-family residential development.

C.5-F Develop a Park Once strategy to promote walkability in mixed use centers and corridors.

C.5-G Study the feasibility of implementing car-sharing program, working with established providers.

C.6-2 Support implementation of new technologies and best practices that make logistics operations cleaner, greener, and more efficient, including electric truck charging stations, autonomous vehicle sensors and communications.

**AttachmentB – WRCOG Land Use Assumptions & VMT Estimates**

Land Use	2012 Baseline	2018 Baseline	2040 Existing GP	2040 Proposed GP
Population	1,790,042	1,944,104	2,508,999	2,504,578
Employment	467,493	566,767	930,772	930,772
Service Population	2,257,535	2,510,871	3,439,771	3,435,350
WRCOG Boundary VMT	37,762,840	43,066,465	64,353,390	64,296,920
WRCOG VMT/SP	16.73	17.15	18.71	18.72
Notes:				
1. GP = General Plan, EXGP = Existing General Plan, PGP = Proposed General Plan, SP = Service Population				

**Attachment C – Daily VMT by Vehicle Class (RTAC Methodology)**

Year		Auto		Light-Heavy Trucks		Medium-Heavy Trucks		Heavy-Heavy Trucks		Total VMT		RTAC VMT
		i	x	i	x	i	x	i	x	i	x	100% ii +50% ix & xi
2012	i	409,031	2,230,854	3,353	17,379	892	23,518	380	56,369	413,656	2,328,121	2,757,414
	x	2,262,033	-	17,394	-	23,536	-	56,431	-	2,359,394	-	
2018	i	466,347	2,509,668	4,867	21,648	1,340	30,320	1,019	86,141	473,573	2,647,777	3,144,986
	x	2,557,012	-	21,652	-	30,316	-	86,068	-	2,695,048	-	
2040 Existing General Plan	i	676,507	3,531,984	10,416	37,302	2,983	55,262	3,363	195,302	693,269	3,819,850	4,566,084
	x	3,638,600	-	37,265	-	55,177	-	194,737	-	3,925,779	-	
2040 Proposed General Plan	i	680,988	3,505,546	10,294	37,269	2,747	53,130	3,211	190,010	697,240	3,785,955	4,524,038
	x	3,588,110	-	37,208	-	53,005	-	189,318	-	3,867,641	-	