

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

for

**Plot Plan Application No. PLN21-0375, General Plan
Amendment No. PLN21-0376 and Zoning Code
Amendment No. PLN21-0377 for
Villagio Apartment Building Addition**

Lead Agency:

City of Menifee

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April 2024

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Appendix A *Map My County*

Appendix B1 *General Plan; Villagio Apartments Air Quality and Greenhouse Gas Impact Study, City of Menifee*, prepared by RK Engineering Group, Inc., 12-8-2023

Appendix B2 *Villagio Apartments, Health Risk Assessment Report*, prepared by RK Engineering Group, Inc., 5-18-2023

Appendix C *Habitat Assessment and MSHCP Consistency Analysis, Villagio Villas Project, City of Menifee*, prepared by ELMT Consulting, 2-15-23

Appendix D *Phase I Cultural Resources Assessment, PPL21-0375, GPA PLN21-076, and CZ PLN21-0377, City of Menifee*, prepared by Jean Keller PhD, 1-2023

Appendix E *Soil and Foundation Evaluation Report for Proposed Apartment Building Addition*, written by Soil Pacific Inc. dated 4-18-2021

Appendix F1 *Preliminary Drainage Study for Villagio Apartments*, prepared by Rick Engineering Company, 10-27-2023

Appendix F2 *Project Specific Water Quality Management Plan, Villagio Apartments*, prepared by Rick Engineering Company, 10-27-2023

Appendix G *Villagio Apartments, Noise Impact Study, City of Menifee*, prepared by RK Engineering Group, Inc., 10-25-2022

Appendix H *Villagio Apartment Homes Project Trip Generation and Vehicle Miles Traveled Screening Study, City of Menifee*, prepared by RK Engineering Group, Inc. 10-4-2022

Appendix I *Riverside County Airport Land Use Commission (RCALUC) Development Review – Director’s Determination*, prepared by RCALUC, 8-2-2023

Appendix J *Phase I Environmental Site Assessment, RSP Project No. 2308347*, prepared by RSB Environmental, 9-7-2023

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Appendix L *Will Serve Letters*, prepared by EMWD (3-6-2024) and Waste Management (2-27-2024)

Commonly Used Abbreviations and Acronyms

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AC	Acre
A.C.	Asphalt Concrete
ACOE	U.S. Army Corps of Engineers
ADT	Average Daily Traffic
af	Acre-Feet
Afu	Undocumented Artificial Fill
AFY	Acre-Feet Per Year
AM	Morning
AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plans
ARB	Air Resources Board
ARB Handbook	ARB Air Quality and Land Use Handbook
BACMs	Best Available Control Measures
BMPs	Best Management Practices
Btu	British thermal units
BUOW	Burrowing Owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CalEEMod™	California Emissions Estimator Model™
Cal/EPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	Methane
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Program
CIWMP	Countywide Integrated Waste Management Plan
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COA	Conditions of Approval
CY	Cubic Yards
dB	Decibel
dBA	A-Weighted Decibel
dBA CNEL	A-weighted decibel Community Noise Equivalent Level
dBA Leq	A-weighted decibel equivalent noise level
DPM	Diesel particulate matter
DTSC	Department of Toxic Substance Control
EAP	Existing Plus Ambient Growth Plus Project
EAPC	Existing Plus Ambient Growth Plus Project Plus Cumulative
EIA	United States Energy Information Administration
EPA	Environmental Protection Agency
EPD	Environmental Programs Department
FEMA	Federal Emergency Management Act
FHWA	Federal Highway Administration

FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping & Monitoring Program
g/m3	Micrograms Per Cubic Meter
GMZs	Groundwater Management Zones
gpd/ac	Gallons-Per-Day Per Acre
HAP	Hazardous Air Pollutants
HFCs	Hydroflourocarbons
HRA	Health Risk Assessment
ITE	Institute of Transportation Engineers
kW	Kilowatt
KWh	Kilowatt Hours
Leq	Equivalent Energy Level
LID	Low Impact Development
LOS	Level of Service
LST	Localized Significance Thresholds
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons Per Day
MLD	Most Likely Descendent
MM	Mitigation Measure
MMT	Million Metric Tons
MPH	Miles Per Hour
MTCO _{2e}	Metric Tons of Carbon Dioxide Equivalent
MWh	Megawatt-Hour
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO ₂	Nitrogen Dioxide
NOA	Naturally Occurring Asbestos
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO _x	Oxides of Nitrogen
NPDES	National Pollution Discharge Elimination System
O ₃	Ozone
Pb	Lead
PM	Particulate Matter
PM _{2.5}	Fine Particulate Matter
PM ₁₀	Respirable Particulate Matter
PPV	Peak Particle Velocity
PRC	Public Resources Code
PVC	Polyvinyl Chloride
PV	Photovoltaic
ROG	Reactive Organic Gases
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCG	Southern California Gas Company
SF ₆	Sulfur Hexafluoride
SO ₂	Sulfur Dioxide
SO _x	Oxides of Sulfur
SO ₂	Sulphur Dioxide
SO _x	Sulphur Oxides
Sq. Ft.	Square Feet
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TCP	Traffic Control Plan
TCR	Tribal Cultural Resource

UBC	Uniform Building Code
U.S.	United States
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound



CITY OF MENIFEE

I. CEQA ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** "Villagio Apartment Building Addition" Major Plot Plan (PP) No. PLN21-0375, General Plan Amendment (GPA) PLN21-0376, and Change of Zone (CZ) PLN21-0377
2. **Lead Agency Name and Address:** City of Menifee, Community Development Department, 29844 Haun Road, Menifee, CA 92586
3. **Contact Person and Phone Number:** Russell Brown, Senior Planner (951) 723-3745
4. **Project Location:** The Project site is located south of McCall Boulevard and east of Interstate 215 at the southern terminus of Encanto Drive - 28377 Encanto Boulevard. The Project site is bordered on the west by the I-215 Freeway, on the north and east by the existing Villagio Villas Apartment project (General Plan 20.1-24 R and zoned High Density Residential or HDR), and on the south by the I-215 and a partially constructed multi-family residential neighborhood (General Plan 8.1-14 R and zoned MDR). The Project site is located between the I-215 Freeway on the west and the Villagio Villas Apartments on the east in the City of Menifee, County of Riverside, State of California. Reference **Figure 1, Regional Location Map** and **Figure 2, Vicinity Map**.

- A. **Total Project Area:** Approximately 0.82 acres
- B. **Assessor's Parcel Number:** 336-030-016
- C. **Section, Township & Range:** Section 27 NW, Township 5S, Range 3W
- D. **Latitude:** $\pm 33^{\circ} 42' 26.23''$ N
- E. **Longitude:** $\pm 117^{\circ} 11' 5.49''$ W
- F. **Elevation:** 1,502 feet above mean sea level (AMSL)

5.A. **Project Applicant/Owners:** Villagio Villas LP
17992 Cowan
Irvine, CA 92714

5.B. **Engineer/Representative:** Ali Fartash
17992 Cowan
Irvine, CA 92714

6. General Plan Land Use Designation(s):

- Existing: None (former Caltrans property)
- Proposed: 20.1-24 du/acre Residential (20.1-24 R)

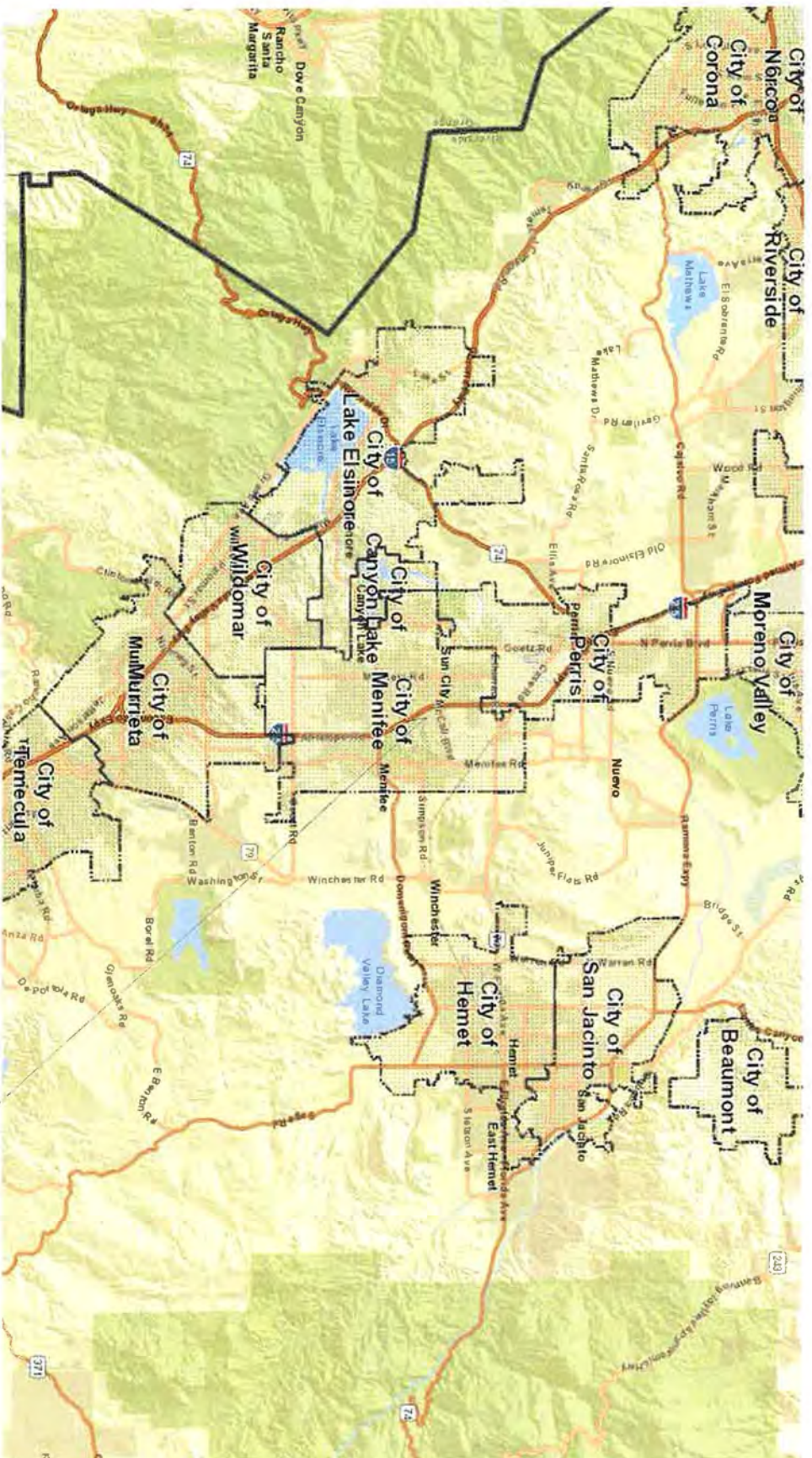
Reference **Figure 3, General Plan Land Use Designations**.

7. Zoning District(s):

- Existing: None (former Caltrans property)
- Proposed: High Density Residential (HDR)

Reference **Figure 4, *Zoning Classifications***.

FIGURE 1
REGIONAL LOCATION MAP

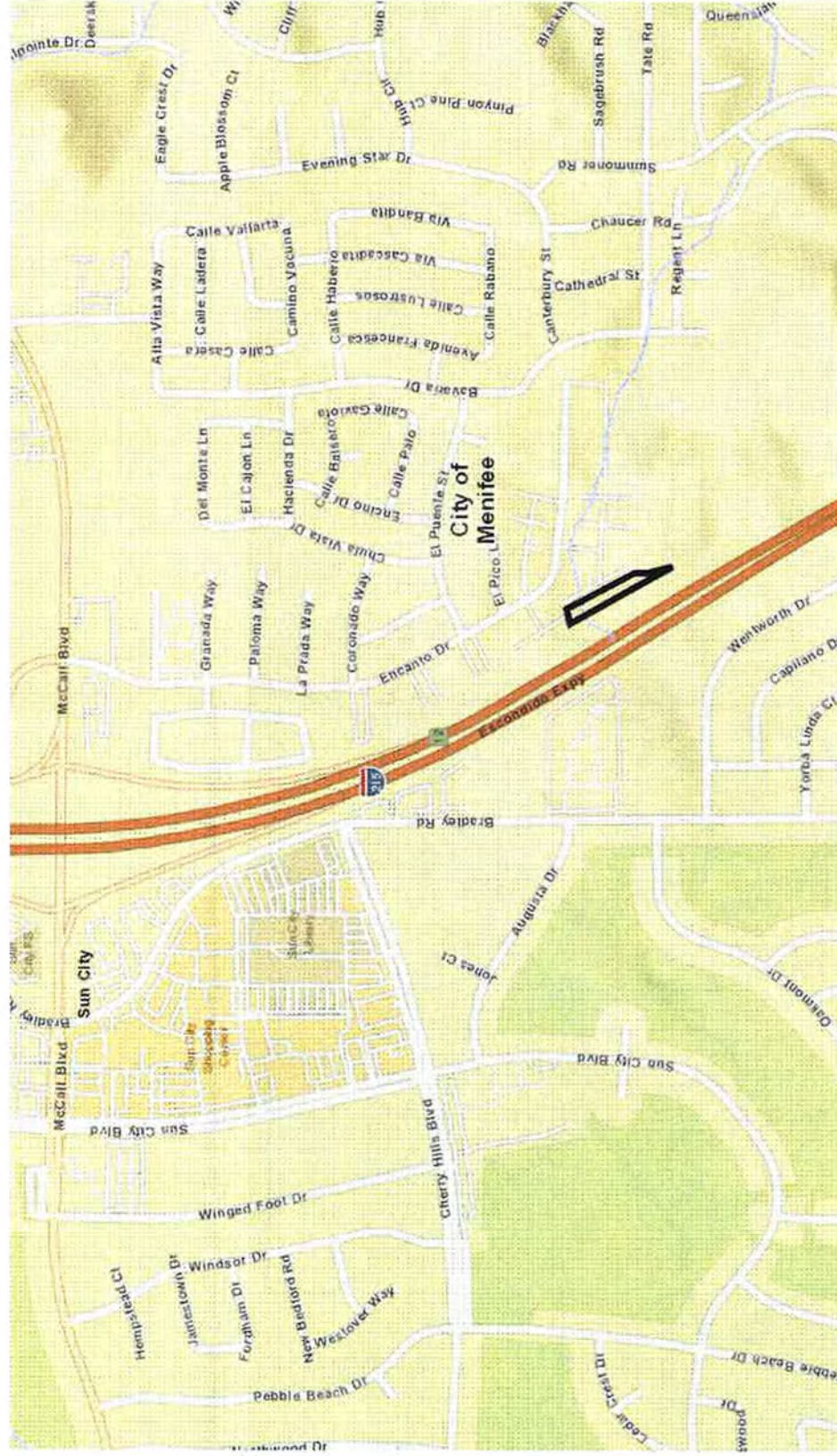


Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

SITE



**FIGURE 2
VICINITY MAP**



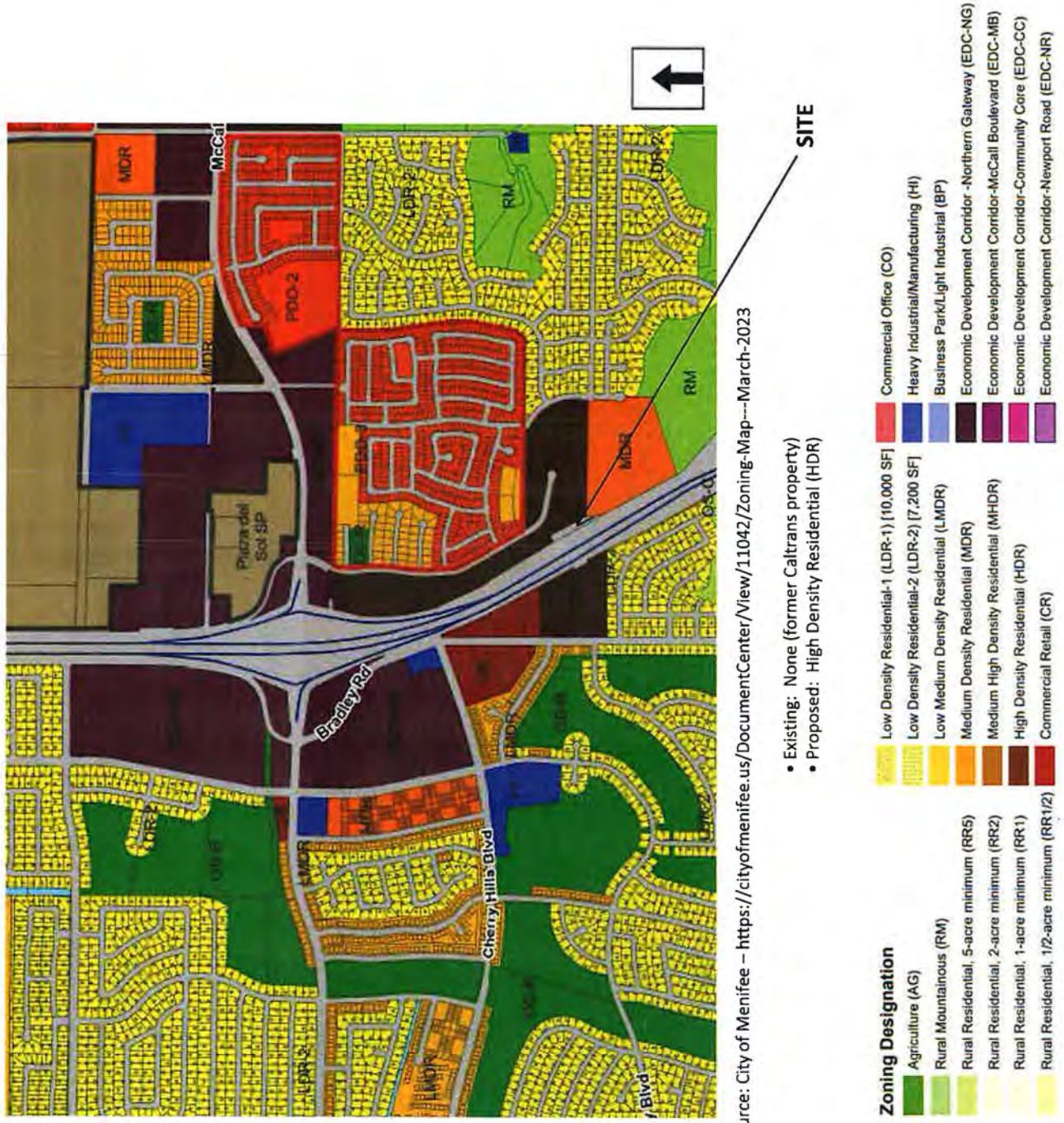
Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

SITE

- Existing: None (former Caltrans property)
- Proposed: 20.1-24 du/acre Residential (20.1-24 R)

GP Land Use Designation					
	Rural Residential 1/2 ac min (RR1/2)		20.1-24 du/ac Residential (20.1-24 R)		Business Park (BP) 0.25 - 0.60 FAR
	Rural Mountainous 10 ac min (RM)		2.1-5 du/ac Residential (2.1-5 R)		Commercial Retail (CR) 0.20 - 0.35 FAR
	Rural Residential 5 ac min (RR5)		5.1-8 du/ac Residential (5.1-8 R)		Commercial Office (CO) 0.25 - 1.0 FAR
	Rural Residential 2 ac min (RR2)		8.1-14 du/ac Residential (8.1-14 R)		Heavy Industrial (HI) 0.15 - 0.50 FAR
	Rural Residential 1 ac min (RR1)				Agriculture (AG) Conservation (OS-C)

FIGURE 4
ZONING CLASSIFICATIONS



8. Project Description

Overview

The Project proposes two new 2-story apartment buildings totaling 22,588 square feet as part of an existing 96-unit apartment complex (“Villagio Villas”). Each building includes 12 units for a total of 24 units, bringing the total unit count in the Villagio Villas to 120 units and a total density of 17.17 dwelling units per acre for the entire apartment development site (6.99 net acres). The applicant is proposing that 25% or 6 units be set aside as low to very low-income levels.

The subject parcel is 0.82 acres and the total apartment development site area is approximately 7.58 gross acres (6.99 net). The proposed location was previously owned by Caltrans and currently has no zoning or General Plan Land Use designations. Therefore, the proposed Project would zone the site HDR (High Density Residential) with a General Plan Land Use designation of 20.1-24 du/acre Residential (20.1-24 R). The Project proposes to add 12 (uncovered) parking stalls and remove 27 (covered/uncovered) parking stalls in various locations throughout the existing apartment complex site by modifying existing improvements/features. The Project also includes a 600 square foot maintenance building to the south of the proposed residential buildings, adjacent to the freeway right-of-way. The Project includes the following applications:

- Plot Plan (PP) No. PLN21-0375 for two new apartment buildings with 24 total units on 0.82-acre to be added to the existing Villagio Villas Apartments just east of the Project site. The Project also includes a 600 square foot maintenance building to the south of the proposed residential buildings.
- General Plan Amendment (GPA) PLN21-0376 to change the General Plan land use designation from “no designation” (former Caltrans property) to 20.1-24 du/acre Residential (20.1-24 R) on the 0.82-acre site.
- Change of Zone (CZ) PLN21-0377 to change the zoning on the 0.82-acre site from “no designation” (former Caltrans property) to High Density Residential (HDR).

These applications collectively comprise the “Project.” Reference: **Figure 5, Site Plan** and **Figure 6, Elevations**.

Architectural floor plan of the 9/11 World Trade Center site, showing the Twin Towers and surrounding structures. The plan includes various rooms, corridors, and structural elements. Key areas are labeled with letters A, B, and C. The plan is oriented with North at the top. The Twin Towers are the large, dark, rectangular structures in the center. The plan includes numerous labels for rooms, corridors, and structural elements. The plan is oriented with North at the top. The Twin Towers are the large, dark, rectangular structures in the center.



FIGURE 6
ELEVATIONS



Source: Project Plans – (Appendix K)

General Plan Amendment/Zone Change

Per the City's Pre-Application Review (Planning Application No. PR20-0331), the 0.82-acre Project site (APN 336-030-016) does not have a general plan land use or zoning designation. This document and supporting exhibits demonstrate the proposed land use and zoning designation and also provides supplemental detail regarding the site history. This Project (APN 336-030-016) proposes 24 new dwelling units on 6.99 acres (net), bringing the total to 120 dwelling units with a density of 17.17 du/ac. In order to bring the parcels closer to compliance with City of Menifee regulations, the Project site proposes a High Density Residential (HDR) zone at 20.1 to 24 du/ac and 20.1-24 du/ac Residential land use designation. The proposed zone and land use designation align with the existing adjacent Villagio Apartment Homes (APN 336-030-009) site zoning and land use designations. In addition, the proposed designations fit the intended use of multi-family dwellings, including apartments and condominiums identified in Title 9.130 of the Development Code and Exhibit LU-3 of the General Plan. Reference Existing General Plan Land Use, Existing Zoning, Proposed General Plan Land Use, and Proposed Zoning exhibits located in this Initial Study as part of **Appendix K, Project Plans**.

Site History

Based upon discussion with City staff, additional detail regarding the site history was requested to ensure there would not be any issues with moving forward on this Project. Per Riverside County Assessor Document #2017-0249811, Caltrans sold the 0.82-acre Project site (APN 336-030-016) to the Villagio Apartment Homes property owner, Villagio Villas, L.P., in 2017. It should be noted that this transaction resulted in creating the APN for this Project site (APN 336-030-016). Reference Riverside County Assessor Document (#2017-0249811) located in this Initial Study as part of **Appendix K, Project Plans**.

Access

The two new buildings will take access through the existing Villagio Villas Apartments neighborhood via two driveways with access to Encanto Drive which then connects north to McCall Boulevard.

Landscaping

All Project landscaping is subject to the requirements of the City of Menifee Municipal Code (MMC). According to the conceptual landscape plan (sheet L-01), the total area of the site is 1.05 acres and will have 21,063 square feet of privately maintained landscaping which represents 46% of the site versus a minimum of 20% required by the MMC. The landscaping will be consistent with the planting palette of the existing Villagio Villas Apartments to the east. All trees, shrubs, and ground cover are of low to moderate water demand per the California Water Efficient Landscape Worksheet calculations shown on the conceptual landscape plan. Reference **Figure 7, Landscape Plan**.

[illegible]

Grading

Grading for the Project will require approximately 2,079 cubic yards (cy) of export and 75 cy of import.

Drainage and Water Quality

In the existing condition, the site is vacant with low weedy vegetation on the 0.82-acre site. The site generally flows southwest toward the I-215 Freeway but will be re-graded to become part of the drainage system of the adjacent Villagio Villas Apartment neighborhood.

In the ultimate proposed condition, the Project site will be part of an existing residential apartment complex. The proposed drainage conditions will include a small underground infiltration vault due to the small size of the site. The installation of onsite storm drain facilities will drain through the existing apartment complex to the east. No increase in off-site flows is expected from the development of this Project.

Water/ Sewer

The Project site is located within the Eastern Municipal Water District (EMWD) water and sewer service boundary. EMWD has issued a Will Serve Letter to the Project applicant acknowledging they will provide service. There is an existing water main near the Project site within the existing apartment complex that will be extended to the two new proposed buildings. Sewer system improvements would need to be extended from the existing apartment neighborhood to the two new apartment buildings. All improvements will be constructed by the property owner/developer in accordance with EMWD's standards, specifications, and master plan.

9. Public Services, Utilities and Service Systems

All utilities and public services are currently available on, or adjacent to, the proposed Project site. Utility and Service System providers are as follows:

Electricity:	Southern California Edison
Water:	Eastern Municipal Water District
Sewer:	Eastern Municipal Water District
Cable:	AT&T / Frontier
Gas:	Southern California Gas
Telephone:	AT&T / Frontier
School:	Menifee Union and Perris Union High School District
Police:	City of Menifee Police Department
Fire:	Riverside County Fire Department

10. Surrounding Land Uses & Environmental Setting

The Project site is bordered on the west by the I-215 Freeway, on the north and east by the existing Villagio Villas Apartment project (General Plan 20.1-24 R and zoned High Density Residential or HDR), and on the south by the I-215 and a partially constructed multi-family residential neighborhood (General Plan 8.1-14 R and zoned MDR). The Project is located between the I-215 Freeway on the west and the Villagio Villas Apartments on the east. The Project site is located just east of the I-215 Freeway near

the southern terminus of Encanto Drive in the City of Menifee, County of Riverside, State of California. Reference **Figure 1, Regional Location Map** and **Figure 2, Vicinity Map**.

The elevation of the subject property varies from 1,486 to 1,500 feet AMSL with a gentle slope down to the south. Reference **Figure 8, Aerial Photo**.

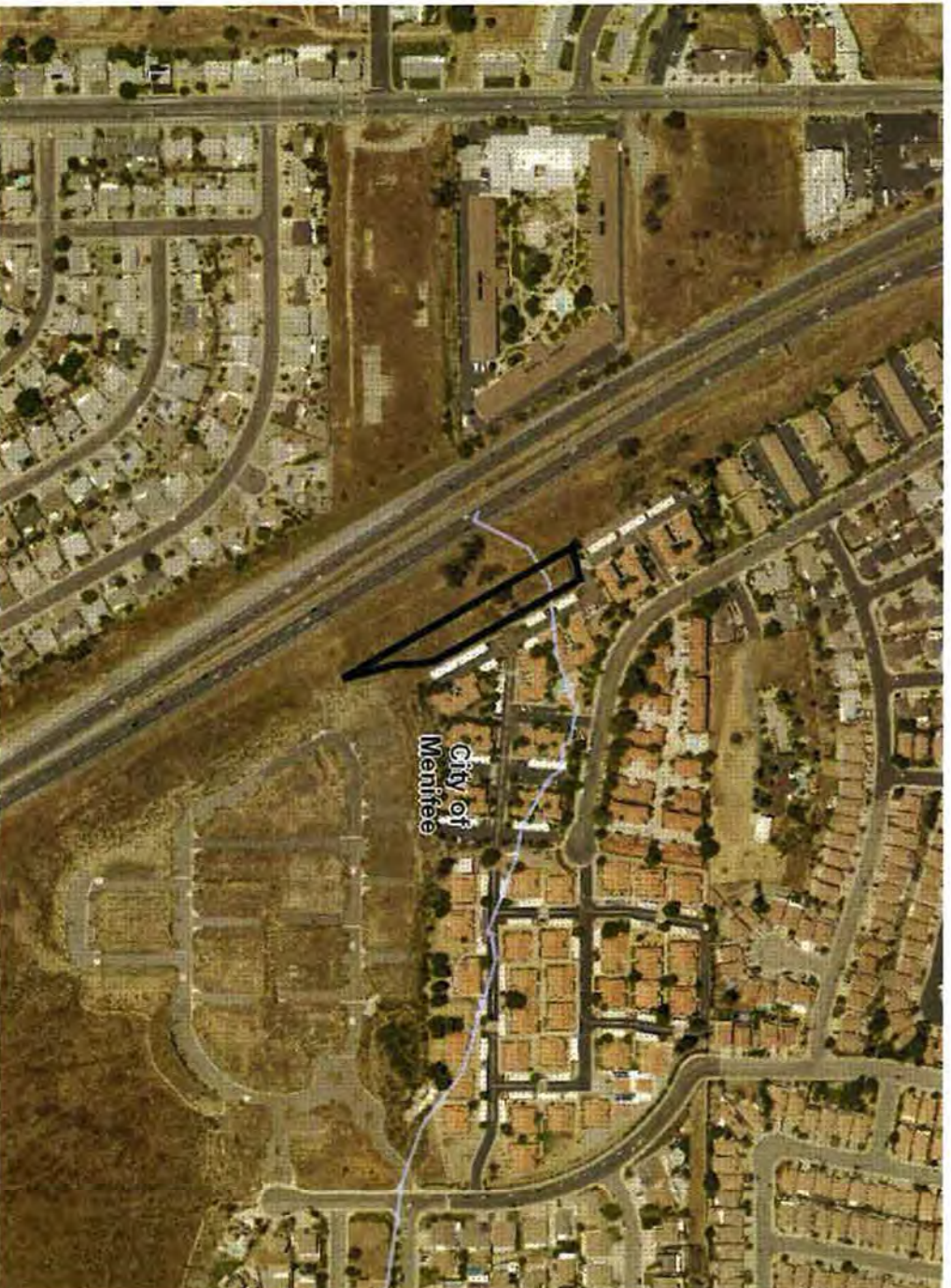
Table 1, Surrounding Land Uses, lists the different uses that are located immediately adjacent to the proposed Project site. Also, please reference **Figure 3, General Plan Land Use Designations** and **Figure 4, Zoning Classifications**.

**Table 1
Surrounding Land Uses**

Direction	General Plan Land Use Designation	Zoning Classification	Existing Land Use
<u>Project Site</u> Existing Proposed	None 20.1-24 R	None High Density Residential (HDR)	Vacant 2 apartment buildings
North	20.1-24 R	High Density Residential (HDR)	Villagio Villas Apartments
South	8.1-14 R	Medium Density Residential (MDR)	Vacant/Partially Constructed Multi-Family Residences
East	20.1-24 R	High Density Residential (HDR)	Villagio Villas Apartments
West	None (I-215 Fwy)	None (I-215 Fwy)	I-215 Freeway

Sources: City of Menifee General Plan – Land Use Map, City of Menifee Zoning Map, and Google Earth

FIGURE 8
AERIAL PHOTO



Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

11. Project Approvals

Implementation of the proposed project would require the following discretionary and ministerial project approvals from the City of Menifee.

Discretionary Approvals Requested

- General Plan Amendment
- Zoning Code Amendment
- Major Plot Plan
- Statewide General Construction Permit
- Grading Permit
- Building Permits

Other Agency Actions

- Caltrans – Encroachment Permit (construction)
- South Coast Air Quality Management District
- Eastern Municipal Water District (water/sewer connections)

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (X) would be potentially affected by this project, involving at least one impact that is either a “Potentially Significant Impact” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Energy | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Population and Housing | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

III. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED	
<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED	
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, NO NEW ENVIRONMENTAL DOCUMENTATION IS REQUIRED because (a) all potentially significant effects of the proposed project have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, (b) all potentially significant effects of the proposed project have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, (c) the proposed project will not result in any new significant environmental effects not identified in the earlier EIR or Negative Declaration, (d) the proposed project will not substantially increase the severity of the environmental effects identified in the earlier EIR or Negative Declaration, (e) no considerably different mitigation measures have been identified and (f) no mitigation measures found infeasible have become feasible.
<input type="checkbox"/>	I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An ADDENDUM to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.
<input type="checkbox"/>	I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the project in the changed situation; therefore a SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT is required that need only contain the information necessary to make the previous EIR adequate for the project as revised.
<input type="checkbox"/>	I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT is required: (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following:(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or,(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the project on the environment, but the project proponents decline to adopt the mitigation measures or alternatives.

Signature

Russell Brown, Senior Planner

Date

Printed Name

IV. EVALUATION OF ENVIRONMENTAL IMPACTS

1. AESTHETICS.

Source(s): Public Resources Code Section 21099; City of Menifee General Plan (*General Plan*); City of Menifee General Plan Environmental Impact (*GPEIR*) (Chapter 5.1, *Aesthetics*); *Map My County* (**Appendix A**); Project Plans (**Appendix K**); **Figure 1, Regional Location Map**; **Figure 2, Vicinity Map**; **Figure 3, General Plan Land Use Designations**; **Figure 4, Zoning Classifications**; **Table 1, Surrounding Land Uses**; and **Figure 8, Aerial Photo**, all provided in Section I. of this Initial Study.

Applicable General Plan Policies:

- **Goal CD-3:** Projects, developments, and public spaces that visually enhance the character of the community and are appropriately buffered from dissimilar land uses so that differences in type and intensity do not conflict.
- **Policy CD-3.1:** Preserve positive characteristics and unique features of a site during the design and development of a new project; the relationship to scale and character of adjacent uses should be considered.
- **Policy CD-3.2:** Maintain and incorporate the City's natural amenities, including its hillsides, indigenous vegetation, and rock outcroppings, within proposed projects.
- **Policy CD-3.3:** Minimize visual impacts of public and private facilities and support structures through sensitive site design and construction. This includes but is not limited to: appropriate placement of facilities; undergrounding, where possible; and aesthetic design (e.g., cell tower stealthing).
- **Policy CD-3.5:** Design parking lots and structures to be functionally and visually integrated and connected; off-street parking lots should not dominate the street scene.
- **Policy CD-3.6:** Locate site entries and storage bays to minimize conflicts with adjacent residential neighborhoods.
- **Policy CD-3.8:** Design retention/detention basins to be visually attractive and well-integrated with any associated project and with adjacent land uses.
- **Policy CD-3.9:** Utilize Crime Prevention through Environmental Design (CPTED) techniques and defensible space design concepts to enhance community safety.
- **Policy CD-3.10:** Employ design strategies and building materials that evoke a sense of quality and permanence.
- **Policy CD-3.11:** Provide special building-form elements, such as towers and archways, and other building massing elements to help distinguish activity nodes and establish landmarks within the community.
- **Policy CD-3.12:** Utilize differing but complementary forms of architectural styles and designs that incorporate representative characteristics of a given area.
- **Policy CD-3.13:** Utilize architectural design features (e.g., windows, columns, offset roof planes) to vertically and horizontally articulate elevations in the front and rear of residential buildings.
- **Policy CD-3.14:** Provide variations in color, texture, materials, articulation, and architectural treatments. Avoid long expanses of blank, monotonous walls or fences.
- **Policy CD-3.16:** Avoid use of long, blank walls in industrial developments by breaking them up with vertical and horizontal facade articulation achieved through stamping, colors, materials, modulation, and landscaping.
- **Policy CD-3.17:** Encourage the use of creative landscape design to create visual interest and reduce conflicts between different land uses.

- **Policy CD-3.18:** Require setbacks and other design elements to buffer residential units to the extent possible from the impacts of abutting roadway, commercial, agricultural, and industrial uses.
- **Policy CD-3.19:** Design walls and fences that are well integrated in style with adjacent structures and terrain and utilize landscaping and vegetation materials to soften their appearance.
- **Policy CD-3.20:** Avoid the blocking of public views by solid walls.
- **Policy CD-3.22:** Incorporate visual buffers, including landscaping, equipment and storage area screening, and roof treatments, on properties abutting either Interstate 215 or residentially designated property.
- **Goal CD-4:** Recognize, preserve, and enhance the aesthetic value of the City's enhanced landscape corridors and scenic corridors.
- **Policy CD-4.1:** Create unifying streetscape elements for enhanced landscape streets, including coordinated streetlights, landscaping, public signage, street furniture, and hardscaping.
- **Policy CD-4.2:** Design new and, when necessary, retrofit existing streets to improve walkability, bicycling, and transit integration; strengthen connectivity; and enhance community identity through improvements to the public right-of-way such as sidewalks, street trees, parkways, curbs, street lighting, and street furniture.
- **Policy CD-4.3:** Apply special paving at major intersections and crosswalks along enhanced corridors to create a visual focal point and slow traffic speeds.
- **Policy CD-4.4:** Frame views along streets through the use of wide parkways and median landscaping.
- **Policy CD-4.8:** Preserve and enhance view corridors by undergrounding and/or screening new or relocated electric or communication distribution lines, which would be visible from the City's scenic highway corridors.

Analysis of Project Effect and Determination of Significance:

Public Resources Code Section 21099 pertains to "Modernization of Transportation Analysis for Transit-Oriented Infill Projects." The Project does not meet any of the criteria of a transit-oriented development. Therefore, the provisions of Public Resources Code Section 21099 are not applicable.

Except as provided in Public Resources Code Section 21099, would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X

No Impact

Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (e.g., development on a scenic hillside). The natural mountainous setting of the Meniffee area is critical to its overall visual character and provides a variety of scenic vistas for the community.

Topography and a lack of dense vegetation or urban development offer scenic views throughout the City of Meniffee (City), including to and from hillside areas. Scenic features include gently sloping alluvial fans, rugged mountains and steep slopes, mountain peaks

and ridges, rounded hills with boulder outcrops, farmland and open space. Scenic vistas provide views of these features from public spaces.

Many of the scenic resources are outside the City limits. Scenic views from Menifee include the San Jacinto Mountains to the northeast and east; the San Bernardino Mountains to the north; on very clear days the San Gabriel Mountains to the northwest; and the Santa Ana Mountains to the west and southwest. The Project site is relatively small (0.82-acre) and is adjacent to the I-215 Freeway to the west. The site is relatively flat and will be graded to be at approximately the same elevation as the adjacent apartment complex to the east. In fact, the two new apartment buildings proposed by the Project will become an integral part of the existing Villagio Villas Apartment complex.

The Project site is located in the southern portion of the City of Menifee, County of Riverside, State of California. Reference **Figure 1, Regional Location Map**, **Figure 2, Vicinity Map**, **Table 1, Surrounding Land Uses**, and **Figure 8, Aerial Photo**, provided in Section I. of this Initial Study.

The Project site is currently vacant and was previously part of the Caltrans right-of-way for the adjacent freeway. The site was recently sold to a private developer to be incorporated into the existing apartment complex. The site is bordered on the north and east by the existing apartment complex, and by a multi-family housing development on the southeast. The existing apartment units are taller than the single family residential and commercial uses to the north, as well as the multi-family residential neighborhood to the southeast. This portion of the City is relatively urbanized although there is still vacant land scattered in the surrounding area. There are also low uplands further to the southeast, east, and northeast which provide local scenic views.

The proposed Project will incrementally change the visual character of the Project site by adding two new apartment buildings similar in size and height to the existing apartment buildings to the existing apartment complex to the north and east. The Project site and surrounding land uses have views of various mountains and foothills in all directions, although views to the northwest, west, and southwest have the I-215 Freeway in the foreground. The Project proposes two-story residential buildings (max. height approx. 25 feet) that will match the existing apartment buildings to the north and east and will not substantially block views of surrounding uplands and distant mountains. This Project site is not considered to be within or to comprise a portion of a scenic vista. Development of the vacant site with the proposed development, parking features, landscaping elements, and temporary drainage facility will have no effect on a scenic vista. Therefore, the proposed Project will not result in any impacts to a view of a scenic vista and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X

No Impact

There are no officially designated State or County scenic highways in or near the City. Interstate 215, which passes through the center of the City, is designated an "Eligible

County Scenic Highway” in the City General Plan. In addition, State Route 74 (SR-74), which passes through the northeastern part of the City, is considered an “Eligible State Scenic Highway” by the California Department of Transportation. Both of these roadways are shown in the City General Plan, Circulation Element, Exhibit C-8, Scenic Highways. The Project site is located in the southern portion of the City. The nearest designated state scenic highway to the City is a portion of SR-74 in the San Jacinto Mountains about 17 miles east of the City.

The Project site is currently vacant and contains a few trees within the former Caltrans right-of-way. The site is bordered by similar density housing to the north and east, and somewhat lower density multi-family housing to the southeast. The only prominent visual feature in the immediate area is a series of low hills that rise to the southeast, east, and northeast.

There are no rock outcroppings or other visual resources on the Project site. According to the *GPEIR*, implementation of the proposed General Plan would not result in damage to any significant rock outcroppings within a state Scenic highway. The same conclusions would apply to the Project site as well. In addition, there are no buildings onsite so there can be no historic buildings on the Project site.

Therefore, no impacts to scenic resources within view from a state scenic highway will occur and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?			X	

Less Than Significant Impact

According to Section 5.1.3 of the *GPEIR* (p. 5.1-10):

“Implementation of the proposed General Plan is not expected to degrade views of scenic resources in the City. At full General Plan buildout, development in many parts of the City would intensify urban development in currently undeveloped areas. Portions of the City that are currently vacant land or farmland would be developed with a mix of residential, commercial, industrial, and institutional uses.”

The Project area does have views of uplands outside of the City. Scenic views from Menifee include the San Jacinto Mountains to the northeast and east; the San Bernardino Mountains to the north; the San Gabriel Mountains to the northwest; and the Santa Ana Mountains to the west and southwest. The Project site is relatively flat although slopes gently down toward the freeway to the west.

The Project site is currently vacant except for a few trees. The site is bordered by similar density housing to the north and east and lower density housing to the southeast.

Construction of the proposed Project will result in short-term impacts to the existing visual character and quality of the area. Construction activities will require the use of equipment and storage of materials within the Project site. However, construction activities are temporary and will cease when construction is finished, so they will not result in any permanent visual impacts.

The proposed Project will incrementally change the visual character of the Project site by adding two new apartment buildings to an existing apartment complex. Views of the Project site are shown in **Figure 8, Aerial Photo**, provided in Section I. of this Initial Study. The proposed residential structures will be consistent with the existing apartment buildings to the north and east as well as the City's design guidelines for the 20.1-24 Residential land use designation and compatible with neighboring residences along the east side of the I-215 Freeway.

The Project is consistent with the General Plan which anticipated residential development of this scale and character in this area. The two new buildings will be consistent with the existing apartment complex and City design and building height requirements and limitations. The proposed Project does not appreciably change the visual character of the Project area as it will only add two buildings to the existing apartment complex with 10 buildings. The appearance of the buildings and landscaping will blend with the characteristics of the adjacent. With incorporation of the planned residential design features, the Project will have less than significant impacts on the visual character of the site and its surroundings, will not degrade public views, and will not conflict with applicable zoning and other regulations governing scenic quality. Impacts will be less than significant, and no mitigation is required.

Except as provided in Public Resources Code Section 21099, would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Less Than Significant Impact

Excessive or inappropriately directed lighting can adversely impact nighttime views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists).

Construction

Currently, the Project site is vacant and was formerly part of the Caltrans right-of-way for the adjacent I-215 Freeway. The site currently has no onsite lighting but is lit by fixtures along the freeway and in the adjacent apartment complex. A general glow from headlights of traffic along the I-215 Freeway is readily visible to the west. The residential neighborhoods to the north, east, and south have lighting typical of suburban communities.

The proposed residential use will require additional temporary sources of light and glare during construction activities. These additional artificial light sources are typically associated with security lighting since all exterior construction activities are limited to

daylight hours in the City. Workers either arriving to the site before dawn, or leaving the site after dusk, will generate additional construction light sources. These impacts will be temporary, of short-duration, and will cease when Project construction is completed. For these reasons, and because there are limited numbers of construction workers, these impacts are considered less than significant.

Occupancy

Once the new 24 apartment residences are constructed there will be lighting sources onsite including free-standing streetlights, security light fixtures on the buildings, vehicle headlights, building and streetlights in the existing apartments to the north and east.

The proposed Project will require additional outdoor lighting associated with the new apartment buildings, streets, and parking areas. The City Municipal Code requires that lighting associated with new development not be directed towards any surrounding uses.

Chapter 6.01 of the Menifee Municipal Code (Dark Sky; Light Pollution) indicates that low-pressure sodium lamps are the preferred illuminating source, and all non-exempt outdoor light fixtures shall be shielded. A maximum of 8,100 total lumens per acre or parcel if less than one acre shall be allowed. When lighting is “allowed,” it must be fully shielded if feasible and partially shielded in all other cases and must be focused to minimize spill light into the night sky and onto adjacent properties (Section 6.01.040). The Project will be conditioned that, prior to the issuance of building permits, all new construction which introduces light sources be required to have shielding or other light pollution-limiting characteristics such as hood or lumen restrictions. This is a standard condition and is not considered unique mitigation under CEQA.

The General Plan Community Design Element includes goals that encourage attractive landscaping, lighting, and signage that conveys a positive image of the community (Goal CD-6) and that limit light leakage and spillage that may interfere with the operations of the Palomar Observatory (Goal CD-6.5).

According to Section 5.1.3 of the *GPEIR* (p. 5.1-13):

“Additionally, all future development projects that would be accommodated by the proposed General Plan would be required to comply with California’s Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6, of the California Code of Regulations), which outlines mandatory provisions for lighting control devices and luminaires.

Adherence to County and City regulations and implementation of the policies of the proposed General Plan would ensure that light and glare from new development and redevelopment projects accommodated by the General Plan would be minimized and that significant impacts would not occur.”

The Project site is located approximately 22.5 miles from the Mt. Palomar Observatory. Lighting for the Project will be required to comply with Menifee Municipal Code Section 6.01 and General Plan goals. Accordingly, the Project will have a less than significant impact on interfering with the nighttime use of the Mt. Palomar Observatory.

The requirements of GP Goal CD-6.5 would apply to the Project, therefore, the same conclusions reached in the *GPEIR* would apply to the Project. The Project will not create

a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Any impacts will be less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

2. AGRICULTURE AND FORESTRY RESOURCES.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Source(s): *GPEIR* (Chapter 5.2, *Agriculture and Forestry Resources*); *Map My County (Appendix A)*; *General Plan*; Public Resources Code Section 12220(g); City of Menifee Zoning Map; and City of Menifee Municipal Code.

Applicable General Plan Policies:

N/A

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

No Impact

The California Department of Conservation's (CDC) Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land use and to help preserve areas of Important Farmland. It divides the state's land into eight categories based on soil quality and existing agricultural uses to produce maps and statistical data. These are used to help preserve productive farmland and to analyze impacts on farmland. Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are all Important Farmland and are collectively referred to as Important Farmland in this DEIR. The highest rated Important Farmland is Prime Farmland. Farmland maps are updated and released every two years. The Project site has the farmland designations of Urban-Built Up Land. Therefore, there are no lands designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance that would be affected by this Project.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

No Impact

No Williamson Act contracts are active for the proposed Project site.

There is no existing General Plan Land Use or zoning on the subject site since it was formerly right-of-way belonging to Caltrans. The proposed General Plan Land Use designation is 20.1-24.0 du/ac and the proposed zoning designation is High Density Residential (HDR).

Therefore, the Project will not conflict with a Williamson Act contract or zoning for agricultural use. No impacts will occur.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104(g))?				X

No Impact

Public Resources Code Section 12220(g) identifies forest land as *land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits*. The Project site and surrounding properties are not currently being defined, managed, or used as forest land as identified in Public Resources Code Section 12220(g). No impacts will occur.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

No Impact

As discussed in Threshold 2.b, there is no forest land on the Project site. Therefore, there will be no loss of forest land or conversion of forest land to non-forest use as a result of the Project. No impacts will occur.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

No Impact

The proposed Project is residential in nature, the Project site is proposed to be zoned for residential uses, and the site is bounded on the north by the north and east by developed residential land, on the south by a proposed residential development, and west by Interstate 215.

The Project site was formerly owned by Caltrans as right-of-way and has not been used for agricultural or forest purposes. There is no forest land on the Project site. Therefore, the Project will not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. No impact will occur.

Mitigation Measures

No mitigation measures are required.

3. AIR QUALITY.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Source(s): *General Plan; Villagio Apartments Air Quality and Greenhouse Gas Impact Study, City of Menifee, prepared by RK Engineering Group, Inc., 12-8-2023 (AQ/GHG Analysis, **Appendix B1**); and Villagio Apartments, Health Risk Assessment Report, prepared by RK Engineering Group, Inc., 5-18-2023 (HRA, **Appendix B2**).*

Applicable General Plan Policies:

- **Goal OSC-9:** Reduced impacts to air quality at the local level by minimizing pollution and particulate matter.
- **Policy OSC-9.1:** Meet state and federal clean air standards by minimizing particulate matter emissions from construction activities.
- **Policy OSC-9.2:** Buffer sensitive land uses, such as residences, schools, care facilities, and recreation areas from major air pollutant emission sources, including freeways, manufacturing, hazardous materials storage, wastewater treatment, and similar uses.
- **Policy OSC-9.3:** Comply with regional, state, and federal standards and programs for control of all airborne pollutants and noxious odors, regardless of source.
- **Policy OSC-9.5:** Comply with the mandatory requirements of Title 24 Part 11 of the California Building Standards Code (CALGreen) and Title 24 Part 6 Building and Energy Efficiency Standards.

Analysis of Project Effect and Determination of Significance:

Note: Any tables or figures in this section are from the *AQ/GHG Analysis*, unless otherwise noted.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	

Less Than Significant Impact

The Project site is within the South Coast Air Basin (Basin) and air quality within the Basin is monitored and managed by the South Coast Air Quality Management Agency (SCAQMD). The management of air quality in the Basin is outlined in the Air Quality Management Plan (AQMP) which describes air pollution control strategies to be taken by lead agencies located within region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with Federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the most current AQMP.

The SCAQMD CEQA Handbook states that “New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP.” Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with

the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and
- (2) Whether the project will exceed the assumptions in the AQMP in 2022 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in the *AQ/GHG Analysis*, the short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This analysis also found that long-term operations impacts will not result in significant impacts based on the SCAQMD regional thresholds of significance. Further documentation of these impacts is presented in Threshold 3.b below.

Therefore, the proposed Project does not contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed Project are based on the same forecasts as the AQMP. The 2020-2045 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2020, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City Land Use Plan defines the assumptions that are represented in the AQMP. The property was previously owned by Caltrans as part of the I-215 right-of-way, so it did not have a general plan land use designation or zoning classification. The Project is requesting General Plan land use and zoning designations consistent with those of the existing apartment complex adjacent to the north and east. The Project proposes to develop the 0.82-acre property with 24 new apartments in two buildings that will become part of the adjacent apartment complex. The existing apartment neighborhood was not built out to the maximum allowed under the General Plan or zoning, and the addition of 24 more units will not cause it to exceed those density limits as well. Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation (20.1-24 R and HDR respectively) and would not result in an inconsistency with the land use designation in the City's General Plan. Therefore, the proposed Project does not exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project would not conflict with the implementation of the SCAQMD AQMP. Therefore, impacts are considered to be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			X	

Less Than Significant Impact

The proposed Project is the development of 0.82-acre with 24 apartment units. The Project is anticipated to be built out in one phase with construction anticipated to begin in late 2023 and be completed before the end of 2024. As a “worst case” condition, the Project is anticipated to be completely occupied and operational in 2024. Even if construction was to occur any time after the respective dates, the analysis represents “worst-case” since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.

The Project will generate air pollutants during both construction (short-term impacts) and occupancy (long-term and cumulative impacts). The California Emissions Estimator Model Version 2020.4.0 (CalEEMod) was used to calculate criteria air pollutants from the Project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria air pollutant emissions. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also helps identify mitigation measures to reduce criteria pollutant emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

Regional Construction Impacts

Construction activities associated with the Project will result in emissions of carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur oxides (SO_x), large particulate matter – 10 micrometers or less (PM₁₀), and small particulate matter – 2.5 micrometers or less (PM_{2.5}). Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Construction Workers Commuting

The construction-related maximum criteria pollutant emissions for the construction of the proposed residential project are shown below in **Table 3-1, Regional Construction Impacts**, which demonstrates that none of the analyzed criteria pollutants would exceed the SCAQMD’s regional emissions thresholds. However, it should be noted the City will require the Project to comply with standard conditions of approval regarding applicable SCAQMD Rules such as Rule 403 which limits fugitive dust (e.g., watering the site twice a day) and

Rule 1113 which limits architectural coatings applied to buildings to 50g/L VOC content. These conditions are considered regulatory compliance and not unique mitigation under CEQA. Therefore, regional air quality impacts from Project construction would be less than significant and no mitigation is required.

**Table 3-1
Regional Construction Emissions**

Maximum Daily Emissions (lbs./day) ¹						
Construction Activity	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum ¹	28.84	26.87	14.83	0.10	6.37	2.72
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	No	No	No	No	No	No

¹ On-site emissions from equipment operated on-site that is not operated on public roads. On-site grading PM₁₀ and PM_{2.5} emissions include watering twice a day for compliance with SCAQMD Rule 403 fugitive dust. Paving and painting phase may overlap with construction phase.

Regional Operational Emissions

Occupancy or operational activities associated with the proposed Project will result in emissions of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. The operating emissions were based on the year 2024, which is the anticipated opening year for the proposed Project. Operational emissions would be expected from the following primary sources:

- Mobile Source Emissions
- Area Source Emissions
- Energy Source Emissions

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The trip generation rates are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition for single family residences. The program then applied the emission factors for each trip provided by the most current Emission Factor (EMFAC2021) model to determine the vehicular traffic pollutant emissions. Area sources include emissions from hearths, consumer products, landscape equipment and architectural coatings. Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

The worst-case summer or winter VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions generated by the proposed Project's long-term operations have been calculated and are summarized below in **Table 3-2, Regional Operational Emissions**, which shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, the long-term regional air quality impacts of proposed Project occupancy or operation would be less than significant, and no mitigation is required.

**Table 3-2
Regional Operational Emissions**

Maximum Daily Emissions (lbs./day)¹						
Activity	VOC	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Total	1.34	1.07	7.45	0.01	1.14	0.33
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	No	No	No	No	No	No

¹ Maximum daily emissions during either summer or winter were used; includes both on-site and off-site Project emissions.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?		X		

Less Than Significant with Mitigation Incorporated

Overview

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24-hours or longer, such as residences, hospitals, and schools (etc.).

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed Project has been analyzed for the potential local air quality impacts created from construction-related fugitive dust and construction equipment/vehicle emissions.

As part of the SCAQMD's environmental justice program, attention has been focused on the more localized effects of air quality on sensitive receptors instead of regional impacts on the Basin-wide population. To this end the SCAQMD developed localized significance thresholds (LSTs) methodology that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short- and long-term) to sensitive receptors. SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The Project is located in SRA 24 – Perris Valley.

Localized Construction Emissions

Localized air quality emissions are analyzed using the SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-up Tables which are used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum

emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. To be conservative a disturbance area of 1.3 acres per day was used for comparison to SCAQMD LSTs.

The nearest sensitive receptor is a single-family detached residential dwelling unit located adjacent to the southern property line of the proposed Project, therefore, the SCAQMD Look-up Tables for 25 meters were used. As shown in **Table 3-3, Localized Construction Emissions**, none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptor. Therefore, construction of the Project would have less than significant localized air quality impacts and no mitigation is required.

**Table 3-3
Localized Construction Emissions**

Maximum Daily Emissions (lbs./day) ¹				
Construction Activity	NO _x	CO	PM ₁₀	PM _{2.5}
Total ²	11.39	10.72	2.64	1.50
SCAQMD Construction Threshold ²	118.0	602.0	4.0	3.0
Exceeds Threshold (?)	No	No	No	No

¹ Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres at a distance of 25 meters in SRA 24 Perris Valley.

² The nearest sensitive receptors to the project include: a single-family detached residential dwelling unit located adjacent to the southern property line of the proposed project.

Localized Operational Emissions

According to SCAQMD LST methodology, LSTs could apply to the operational phase of a project if it included stationary sources (e.g., flares and turbines) and/or on-site mobile equipment or attracts mobile sources that may spend long periods of time idling at the site, such as warehouse/transfer facilities. However, the proposed Project is residential and does not include such uses. As shown in **Table 3-4, Localized Operational Emissions**, none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptor during Project occupancy. Due to its size and the lack of stationary source emissions or on-site heavy-duty mobile equipment, occupancy (operation) of the Project would have less than significant localized air quality impacts and no mitigation is required.

**Table 3-4
Localized Operational Emissions**

Maximum Daily Emissions (lbs./day) ¹				
Construction Activity	NO _x	CO	PM ₁₀	PM _{2.5}
Total ²	0.54	1.86	0.1	0.1
SCAQMD Construction Threshold ²	118.0	602.0	1.0	1.0
Exceeds Threshold (?)	No	No	No	No

¹ Maximum daily emissions in either summer or winter

² The nearest sensitive receptors to the project include: a single-family detached residential dwelling unit located adjacent to the southern property line of the proposed project.

Health Risks from Toxic Air Contaminants

Toxic Air Contaminants (TACs) are often associated with heavy industrial projects or projects that use a large number of diesel trucks (e.g., warehouses). The proposed Project is entirely residential and does not contain any uses or facilities that would generate TACs or represent any significant health risks to residents either on the Project site or in the surrounding area. However, a health risk assessment (*HRA*) was performed to determine if any new sensitive receptors created by the Project (i.e., new residents) could be subject to significant health risks from air pollution generated by the adjacent I-215 Freeway (i.e., 175 feet to the west). The Project will not be a significant source of toxic air contaminants (TACs) but would be exposed to significant DPM TAC emissions and cancer risk from nearby traffic along I-215. The HRA determined that operational health risk impacts for non-cancer related impacts to Project residents would be subject to less than 1.0 in a million additional cancer cases with implementation of **Mitigation Measure MM-AQ-1**. With implementation of this mitigation, impacts on Project residents would be less than significant.

Naturally Occurring Asbestos

The Project is located in Riverside County, CA, which is not among the California counties that are found to have serpentine and ultramafic rock in their soils. Therefore, the potential risk for naturally occurring asbestos during Project construction is small. However, in the event asbestos is found on the site, the Project will be required to comply with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) Asbestos Program. An Asbestos NESHAP Notification Form shall be completed and submitted to the California Air Resources Board immediately upon discovery of the contaminant. The Project will be required to follow NESHAP standards for emissions control during site renovation, waste transport and waste disposal. A person or firm certified in asbestos removal procedures will be required to supervise on-site activities. By following the required asbestos abatement protocols, the Project impact is less than significant. These regulatory compliance protocols are not considered unique mitigation under CEQA.

Carbon Monoxide "Hot Spots"

The significance of localized Carbon Monoxide (CO) impacts depends on whether ambient CO levels in the vicinity of the Project are above or below federal or state standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of the AAQS. If ambient levels already exceed State or federal standards, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

Current CO levels in the SCAB are in attainment of both federal and state standards, and local air quality monitoring data indicates there have not been any localized exceedances of CO over the past three years. Therefore, the Project must not contribute to an exceedance of a federal or state ambient air quality standard.

A CO hot spot is a localized concentration of carbon monoxide that is above the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. At the time of the publishing of the 1993 CEQA Air Quality Handbook, the SCAB was designated nonattainment, and projects were required to perform hot spot analyses to ensure they did not exacerbate an existing problem. Since that time, the SCAB has achieved attainment status and the potential for hot spots caused by vehicular traffic congestion has been greatly reduced. In fact, the SCAQMD AQMP found that peak CO concentrations were primarily the result of unusual

meteorological and topographical conditions and not traffic congestion and the 2003 SCAQMD AQMP found that, at four of the busiest intersections in Los Angeles, there were no CO hot spots concentrations.

Additionally, based on the results of the traffic study prepared for the City's General Plan Circulation Element, all nearby intersections were shown to operate at level of service D or better so traffic and has traffic levels far below those studied in Los Angeles by SCAQMD. Therefore, Project area intersections would not significantly contribute to the formation of CO Hot Spots in the project vicinity. A project of this size would not generate a significant amount of new traffic so the Project's contributions to CO Hot Spots impacts would be less than significant.

For the reasons outlined above, the Project will not expose sensitive receptors to substantial pollutant concentrations. The Project must follow all SCAQMD rules and requirements with regards to fugitive dust control and architectural coatings which are included in the City's standard conditions of approval. Implementation of these conditions is considered regulatory compliance and not unique mitigation under CEQA. Therefore, localized impacts on sensitive receptors will be less than significant and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) affecting a substantial number of people?			X	

Less Than Significant Impact

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed Project. Diesel exhaust and VOCs would be emitted during construction of the Project and their odors are objectionable to some; however, emissions would disperse rapidly from the Project site and therefore should not reach objectionable levels at the nearest sensitive receptors. Short-term impacts would be less than significant, and no mitigation is required.

Potential sources that may emit odors during the on-going operations or occupancy of the proposed Project would include odor emissions from the vehicular and equipment emissions, and trash storage areas. The Project will be required to comply with City regulations regarding odor control. Furthermore, due to the distance of the nearest receptors from the Project site and through compliance with SCAQMD's Rule 402, no significant impact related to odors are anticipated to occur during the on-going operations (i.e., occupancy) of the proposed Project.

Considering the low intensity of potential odor and other emissions and the distance to the nearest sensitive receptors, the Project's construction and occupancy/operational activities would not result in other emissions (such as those leading to odors) affecting a substantial number of people. No other short- or long-term sources of objectionable odors or other emissions have been identified for the proposed Project. Any impacts will be less than significant, and no mitigation is required.

Mitigation Measures

With adherence to SCAQMD regulations and standard City conditions, no mitigation measures are required for criteria air pollutant impacts from Project emissions. The HRA recommended the following measure to reduce potential health risks on future Project residents from nearby I-215 emissions to less than significant levels:

MM-AQ-1 Air Filtration Units. Prior to issuance of an occupancy permit, the applicant shall be required to install high efficiency MERV filters in the intake of residential ventilation systems. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur:

a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units.

b) For rental units, the owner/property manager shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open.

c) For any resident-owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.

4. BIOLOGICAL RESOURCES.

Source(s): *Habitat Assessment and MSHCP Consistency Analysis, Villagio Villas Project, City of Menifee*, prepared by ELMT Consulting, 2-15-23 (*Bio Report, Appendix C*); *GPEIR* (Chapter 5.4, *Biological Resources*); *General Plan*; *Map My County (Appendix A)*; **Figure 1, Regional Location Map, Figure 2, Vicinity Map, and Figure 8, Aerial Photo**, all provided in Section I. of this Initial Study; Section 9.200.030 of the Menifee Municipal Code (Tree Preservation Regulations); and Western Riverside County Multiple Species Habitat Conservation Plan Interactive Maps.

Applicable General Plan Policies:

- **Goal OSC-8:** Protected biological resources, especially sensitive and special status wildlife species and their natural habitats.
- **Policy OSC-8.1:** Work to implement the Western Riverside County Multiple Species Habitat Conservation Plan in coordination with the Regional Conservation Authority.
- **Policy OSC-8.2:** Support local and regional efforts to evaluate, acquire, and protect natural habitats for sensitive, threatened, and endangered species occurring in and around the City.
- **Policy OSC-8.4:** Identify and inventory existing natural resources in the City of Menifee.
- **Policy OSC-8.5:** Recognize the impacts new development will have on the City's natural resources and identify ways to reduce these impacts.
- **Policy OSC-8.8:** Implement and follow MSHCP goals and policies when making discretionary actions pursuant to Section 13 of the Implementing Agreement.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		

Less Than Significant Impact with Mitigation Incorporated

The Project site slopes gently down to the west toward the I-215 Freeway and the site has an average elevation of 1,502 feet above mean sea level (AMSL). The site is vacant and bounded by existing residential uses to the north and vacant lands to the south, east, and west.

The Project site is within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) adopted June 17, 2003. According to the *Bio Report*, the Project site is not located within a Cell, a Cell Group, or Sub-Unit of the MSHCP. In addition, the Project site is not located within or along the boundaries of Western Riverside County Regional Conservation Agency (RCA) Conserved Lands or MSHCP Public/Quasi-Public Conserved Lands of the MSHCP.

The Project site consists of approximately 0.82-acre of ruderal or weedy habitat. The *Bio Report* indicated the site contained no biological resources and there was no visible evidence of natural drainage features, vernal pools, or other wetland features on Project site now or in the recent past, based on site reconnaissance and a review of historical aerial photographs. No standing water or other sign of areas that pond water (e.g., depressions, mud cracks, tire ruts, drainages, etc.) were observed on the Project site and there are no features present that would support fairy shrimp or other plant or animal species typical of vernal pools.

The surrounding areas (except for the freeway to the west) were under agricultural use for many years and also do not support native vegetation or demonstrable biological resources. No perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act were also not found on the Project site (e.g., rivers, open waters, swamps, marshes, bogs, fens, etc.) or in the immediate surrounding area.

The *Bio Report* found a total of 17 special-status plant species, 51 special-status wildlife species, and 2 special-status plant communities as having potential to occur within the Romoland quadrangle (which includes the Project site).⁵³ sensitive species of plants and 61 sensitive wildlife species that have the potential to be present on, or in the vicinity, of the Project site. This assessment included those listed, or candidates for listing by the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), and the California Native Plant Society (CNPS). All habitats with the potential to be used by sensitive species were evaluated and a determination was made on the presence or probability of presence of each potential species. The following analysis includes those species listed as Candidate, Rare, Threatened, or Endangered under the state and federal endangered species laws.

Sensitive Plants. A total of 19 plant species that are listed as state and/or federally Threatened, Endangered, or Candidate species or are 1B.1 listed plants on the CNPS Rare Plant Inventory have a potential to inhabit the general Project area. After review, the *Bio Report* concluded only paniculate tarplant (*Deinandra paniculata*) has a moderate potential to occur. None of the other special-status plant species have potential to occur onsite due to the lack of suitable habitat and routine on-site disturbances and all are presumed absent.

Paniculate tarplant is not federally or state listed as threatened or endangered. It is designated as CNPS Rare Plant Rank 4.2. CNPS Rare Plant Rank 4 species are of limited distribution or infrequent throughout a broader area in California, with 4.2 species considered to be moderately threatened. The *Bio Report* concluded the Project would not have a significant impact on this species and no mitigation was recommended.

Sensitive Wildlife. A total of 51 animal species that are listed as Threatened, Endangered, or Candidate species under state and federal Endangered Species laws have a potential to inhabit the general Project area. This includes CDFW California Species of Special Concern. After review, the *Bio Report* concluded The only special-status wildlife species observed on the Project site during the field investigation was Cooper's hawk (*Accipiter cooperii*). Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a moderate potential to support California horned lark (*Eremophila alpestris actia*) and loggerhead shrike (*Lanius ludovicianus*), and a low potential to support sharp-shinned hawk (*Accipiter striatus*) and Costa's hummingbird (*Calypte costae*). It was further determined that the project site does not have potential to support any of the other

special-status wildlife species known to occur in the vicinity of the site and all are presumed absent. None of the aforementioned special-status wildlife species are state or federally listed as threatened or endangered. In order to ensure impacts to these avian species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey (**Mitigation Measure MM-BIO-1**), impacts to special status avian species will be less than significant and no mitigation will be required.

Sensitive Habitats. The *Bio Report* listed 2 special-status habitats as being identified within the Romoland quadrangle which includes the Project site - Southern Coast Live Oak Riparian Forest and Southern Cottonwood Willow Riparian Forest. Neither of these CDFW special-status plant communities occur within the boundaries of the Project site.

Only the following 3 listed or otherwise sensitive animals had the potential to be present on the site: Stephens' kangaroo rat (*Dipodomys stephensi*); Quino checkerspot butterfly (*Euphydryas Editha quino*); and Coastal California gnatcatcher (*Polioptila californica californica*). The *GBAR* determined that the remaining 12 species were not present and there was no suitable habitat for these species on the site, including several listed species of fairy shrimp and burrowing owl. However, the *GBAR* did indicate suitable habitat for burrowing owl did exist on adjacent properties.

The Stephens' kangaroo rat, Quino checkerspot butterfly, and Coastal California gnatcatcher are covered under the MSHCP so any impacts to these species will be reduced to less than significant levels by payment of the MSHCP impact fee. Payment of this fee is considered regulatory compliance rather than unique mitigation under CEQA.

Critical Habitat. The *Bio Report* also concluded the Project site was not within or adjacent to any federal critical habitat for endangered species. The closest critical habitat is for California gnatcatcher which is located approximately 2.2 miles to the west. There will be no impacts in this regard and no mitigation is required.

MSHCP Survey Species. The site is located within the MSHCP designated survey area for burrowing owl and Narrow Endemic Plant Species (NEPS) Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichoronis (*Trichocoronis wrightii* var. *wrightii*). The *Bio Report* concluded the Project site does not provide suitable habitat for any of the MSHCP-listed Narrow Endemic Plant Species. Therefore, there will be no impacts and no mitigation is required.

The *Bio Study* determined that burrowing owl could occupy the site so it recommended **Mitigation Measure MM-BIO-2** in addition to the nesting bird survey under **MM-BIO-1**.

Nesting Birds. Nesting bird species are protected by California Fish and Game Code Sections 3503 and 3503.5 and by the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711), which make it unlawful to take, possess, or needlessly destroy the nest or eggs of any migratory bird or bird of prey. The Project site contains shrubs and trees that can support nesting songbirds or raptors during the nesting bird season of February 1 through September 15. Potential impacts to nesting birds may occur if ground disturbing activities or vegetation removal occur during the bird nesting season. Raptors also may occasionally utilize nearby trees for perching as there is vacant land in the surrounding

area. Therefore, **Mitigation Measure MM-BIO-1** requires a nesting bird survey be conducted prior to any grading or disturbance of the site.

Although they were not found onsite at the time of survey, it is also possible that burrowing owl could be present by the time the site is graded since it can rapidly inhabit disturbed sites. The Project site is located within the MSHCP burrowing owl survey area, so a 30-day preconstruction survey is required prior to the commencement of project activities (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no owls have colonized the site in the days or weeks preceding these activities. Therefore, **Mitigation Measure MM-BIO-2** requires a burrowing owl survey be conducted prior to any grading or disturbance of the site and specifies what procedures to follow if the species is found onsite at that time. Lastly, the Project site does not contain vernal pools or riparian habitat and would not affect any resources under the jurisdiction of the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service so no mitigation is required, and no subsequent jurisdictional permitting is needed.

Based on available information, the Project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Impacts will be reduced to a less than significant level with the incorporation of the recommended mitigation measures.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				X

No Impact

There is no visible evidence of natural drainage features, vernal pools, or other wetland features on Project site now or in the recent past, based on site reconnaissance and a review of historical aerial photographs. There are no other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act present on the Project site (e.g., rivers, open waters, swamps, marshes, bogs, fens, etc.). As a result, there is no riparian vegetation or other sensitive habitat either on or adjacent to the site. In addition, the *Bio Report* did not identify any sensitive plant community, sensitive habitat type, or critical habitat on or adjacent to the Project site.

Therefore, implementation of the Project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife (CDFW) or U. S. Fish and Wildlife Service (USFWS). No impacts will occur, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

No Impact

The U.S. Army Corps of Engineers (USACE), under Section 404 of the Federal Clean Water Act (CWA), regulates discharges of dredged or fill material into “waters of the United States.” These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a connection to interstate or foreign commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or it may be indirect (through a connection identified in USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high-water mark. In order to be considered a jurisdictional wetland under Section 404, an area must possess hydrophytic vegetation, hydric soils, and wetland hydrology.

The CDFW, under Sections 1600 et seq. of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams. A stream is defined by the presence of a channel bed and banks, and at least an occasional flow of water. The CDFW also regulates habitat associated with the streambed, such as wetland, riparian shrub, and woodlands.

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to “waters of the State,” including wetlands, under the California Porter-Cologne Water Quality Control Act.

There is no visible evidence of natural drainage features, vernal pools, or other wetland features on Project site now or in the recent past, based on site reconnaissance and a review of historical aerial photographs. Other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act are also not present on the Project site (e.g., rivers, open waters, swamps, marshes, bogs, fens, etc.).

Therefore, implementation of the Project will not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No impacts will occur, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		

Less than Significant Impact with Mitigation Incorporated

As discussed previously, the Project site contains no drainage or water features, so it supports no fish species. According to the *Bio Report* and the MSHCP, the site also does not contain any wildlife movement corridors or nursery sites, nor does the immediate surrounding area.

Nesting bird species are protected by California Fish and Game Code Sections 3503 and 3503.5 and by the MBTA of 1918 (16 USC 703-711), which make it unlawful to take, possess, or needlessly destroy the nest or eggs of any migratory bird or bird of prey. The Project site, and areas in the immediate vicinity of the Project contains trees, shrubs, and grasslands that provide suitable nesting habitat for a number of migratory bird species known to nest in the general Project area.

Impacts to nesting bird species must be avoided at all times. The period from approximately February 15 to August 31 is the expected breeding season for bird species occurring in the Project area, including raptors. Under **Mitigation Measure MM-BIO-1**, if Project activity or vegetation removal must be initiated during the breeding season, a qualified biologist must check for nesting birds within three days prior to such activity. If active bird nests are found, avoidance buffers of 1,000 feet for large birds of prey, 500 feet for small birds of prey, and 250 feet for songbirds, decided by CDFW on a case-by-case basis, will need to be observed and implemented. In addition, **Mitigation Measure MM-BIO-2** is required to conduct a 30-day pre-construction survey for burrowing owls. With the implementation of the recommended mitigation, impacts to nesting birds will be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		

Less than Significant Impact with Mitigation Incorporated

The Project site contains no oak or native trees although there are a number of trees in the central and western portions of the Project site. To reduce any potential impacts from tree removal to less than significant, the Project shall comply with the Tree Preservation Regulations found in Section 9.200.030 of the Menifee Municipal Code which shall be provided as a project condition of approval.

Therefore, the proposed Project will comply with, and not conflict with, any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Impacts will be less than significant with implementation of the recommended mitigation.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		

Less than Significant Impact with Mitigation Incorporated

According to the final Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP adopted June 17, 2003), the Project site is not located within a Cell, a Cell Group, or Sub-Unit of the MSHCP. In addition, the Project site is not located within or along the boundaries of the Western Riverside County RCA Conserved Lands or MSHCP Public/Quasi-Public Conserved Lands. The discussion under sub-section 4.a above demonstrates that the proposed Project is consistent with all applicable requirements of the MSHCP and does not require any special studies.

The Project site is not located within an area that has been identified in the MSHCP where conservation potentially needs to occur. A Habitat Acquisition and Negotiation Strategy (HANS) Application will not be required by the City of Menifee Community Development Department pursuant to the MSHCP and the City's General Plan. Conservation has not been described for the Project site. The Project is consistent with Section 6.1.1 of the MSHCP. In addition, the Project site contains no drainage features, jurisdictional drainages, vernal pools, riparian/riverine areas, wetlands, ponds or other features that would fall under MSHCP Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools).

The site has been disturbed for many years and there is no potential for listed or otherwise sensitive or protected plant species to be present as discussed in Section 10.a. Therefore, the Project site is located within a Narrow Endemic Plant Species Survey Area but the *Bio Report* concluded the site did not support any of these species and no additional surveys were recommended. The Project site is also not located at an Urban/Wildlands Interface, so MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface) does not apply to this site.

The Project will implement standard City conditions of approval to reduce the potential of adverse effects from drainage, toxins, etc. with the implementation of the SWPPP, and WQMP. These standard conditions are applicable to all development; therefore, they are not considered mitigation for CEQA implementation purposes.

Section 10.a concluded pre-construction nesting bird and burrowing owl surveys were necessary to assure there would be no impacts to these species (**Mitigation Measures MM-BIO-1** and **MM-BIO-2**). Based on Figures 6-2 (Criteria Area Species Survey Areas), 6-3 (Amphibian Species Survey Areas), and 6-5 (Mammal Species Survey Areas) of the MSHCP, the Project site is not located in an area where any other additional surveys are needed for certain species in conjunction with MSHCP implementation in order to

achieve coverage for these species. Also, the Project site is not located in a Special Linkage Area.

As outlined in Section 6 of the MSHCP, "Payment of the mitigation fee and compliance with the requirements of Section 6.0 are intended to provide full mitigation under CEQA, the National Environmental Policy Act (NEPA), Federal Endangered Species Act, and California Endangered Species Act for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife and/or any other appropriate participating regulatory agencies and as set forth in the Implementing Agreement for the MSHCP."

The Western Riverside County Multiple Species Habitat Conservation Plan Mitigation Fee has been established to provide mitigation for biological impacts from projects within the MSHCP area. All building permit applicants may pay their Western Riverside County MSHCP mitigation fees at any time after having an approved land development permit for the City of Menifee Planning Division (ex: conditional use permit, public use permit, plot plan) and have also paid for building permit plan review or permit fees. Payment of this fee is a standard condition and considered regulatory compliance, so it is not considered unique mitigation under CEQA.

The proposed Project is located within the boundary of the adopted Habitat Conservation Plan (HCP) for the endangered Stephens' kangaroo rat (SKR) implemented by the Riverside County Habitat Conservation Agency (RCHCA). The SKR HCP mitigates impacts from development on the SKR by establishing a network of preserves and a system for managing and monitoring them. The proposed Project is located within the SKR HCP area and will be required to comply with applicable provisions of this plan, specifically, payment of fees. Payment of this fee is a standard condition and is not considered unique mitigation under CEQA.

In conclusion, the proposed Project is consistent with all applicable sections of the MSHCP. Adherence to standard conditions and implementation of **Mitigation Measures MM-BIO-1** and **MM-BIO-2**, ensure consistency with the MSHCP. Thus, the proposed Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, impacts are less than significant with adherence to standard conditions and mitigation measures.

Mitigation Measures

MM-BIO-1 Nesting Bird Survey. If grading or site disturbance including demolition of existing structures is to occur during the nesting season (February 1 – August 31), a nesting bird survey (including raptors) shall be conducted within ten (10) days prior to grading permit issuance or any site clearing or demolition. This survey shall be conducted by a qualified biologist holding a Memorandum of Understanding (MOU) with Riverside County. If active bird nests are found, avoidance buffers of 1,000 feet for large birds of prey, 500 feet for small birds of prey, and 250 feet for songbirds, decided by CDFW on a case-by-case basis, shall be established and observed. The biologist shall prepare a final letter report that shall be submitted to the City of Menifee Community Development Department for review and approval.

MM-BIO-2 Burrowing Owl Survey. A pre-construction survey for BUOW shall be conducted by a qualified biologist within 30-days of Project-related construction activities (i.e., grubbing, grading, etc.) following accepted protocols. If BUOW have colonized the Property prior to the initiation of Project-related construction activities, the Applicant should immediately inform the City and CDFW, and would need to coordinate further with the CDFW including the possibility of preparing a BUOW Protection and Relocation Plan, prior to initiating ground disturbance. This measure shall be implemented to ensure that BUOW will not be directly impacted (i.e., killed, burrow site removal, etc.) or indirectly impacted (i.e., disturbance altering regular behavior such as excessive noise, increased and regular human presence, etc.) by Project-related construction activities.

5. CULTURAL RESOURCES.

Source(s): *Phase I Cultural Resources Assessment, PPL21-0375, GPA PLN21-076, and CZ PLN21-0377, City of Menifee*, prepared by Jean Keller PhD, 1-2023 (CRA, **Appendix D**): *Map My County (Appendix A)*.

Applicable General Plan Policies:

- **Goal OSC-5:** Archaeological, historical, and cultural resources that are protected and integrated into the City's built environment.
- **Policy OSC-5.1:** Preserve and protect significant archaeological, historic, and cultural sites, places, districts, structures, landforms, objects and native burial sites, and other features, such as Ringing Rock and Grandmother Oak, consistent with state law.
- **Policy OSC-5.3:** Preserve sacred sites identified by the Pechanga Band of Indians and Soboba Band of Luiseño Indians, such as tribal burial grounds, by avoiding activities that would negatively impact the sites.
- **Policy OSC-5.5:** Establish clear and responsible practices to identify, evaluate, and protect previously unknown archaeological, historic, and cultural sites, following CEQA and NEPA procedure.

Please note that this Section primarily addresses historical, archaeological, and cultural resources not associated with tribal cultural resources. For a comprehensive discussion on tribal cultural resources, please refer to Section 18, Tribal Cultural Resources, of this Initial Study.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				X

No Impact

The “historic period” in California began in 1769 when a Spanish expedition from Mexico founded Mission San Diego. The first European explorers in the Project area were Pedro Fages and Juan Bautista de Anza who traveled through the Perris and San Jacinto Valleys as early as 1772-1774. Due to its isolation, Europeans did not settle in the Perris Valley until the beginning of the 19th century. The valley was under the control of Mission San Luis Rey which was established in 1798 near Oceanside. After secularization of the missions in the 1830s, the Mexican government failed to issue any large land grants in southwestern Riverside County and the area remained public land when the U.S. annexed California in 1848.

Around 1880, S. Menifee Wilson located a gold quartz mine about eight miles south of present-day Perris and named it the Menifee Quartz Lode. The area around the mine thus came to be known as the Menifee Valley. By the time Riverside County was created in 1893, Menifee had become an important grain- and hay-growing area. Menifee continued as a farming and mining community well into the 20th century. In recent

decades residential and commercial development has become the driving force in regional growth. In October 2008, Menifee was incorporated as the 26th city in Riverside County.

According to Eastern Information Center (EIC) records, the Project area had not been previously surveyed for cultural resources although three surveys have been conducted adjacent to the site over the years. EIC records found that no resources had been recorded on or adjacent to the property. Outside the Project boundaries but within a one-mile radius of the site, EIC records show 29 previous cultural resources studies on various tracts of land in the surrounding area. The EIC search identified 2 historical/archaeological sites including a basin grinding feature (P-33-005318) within a half mile of the site and a 1964 single story vernacular commercial building (P-33-026430) within three-quarters of a mile of the site.

One of the known sites is historic and the other of pre-historic origin. The *CRA* indicated that no known cultural resources were located in the immediate vicinity of the Project area and thus the two known sites do not require any specific treatment related to development of this site.

According to Public Resources Code (PRC) §5020.1(j), “historical resource” includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.”

More specifically, CEQA guidelines state that the term “historical resources” applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that “generally a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

According to the *CRA*, the site currently contains no buildings or facilities that would satisfy any of the criteria for a historic resource defined in Section 15064.5 of the State CEQA Guidelines. The Project site is also not listed with the State Office of Historic Preservation or the National Register of Historic Places.

Therefore, the proposed Project will not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. No impacts will occur, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			X	

Less Than Significant Impact

Human occupation in what is now the State of California began 8,000 to 12,000 years ago and long predated European contact, including in the Project area. The Perris Valley has long been a part of the homelands of the Luiseño Indians, a Takic-speaking people whose territory extended from present-day Riverside to Escondido and Oceanside. The name of the group derives from Mission San Luis Rey which held jurisdiction over most of the traditional Luiseño territory during the Spanish mission period. Luiseño history, as recorded in traditional songs, tells the creation story from the birth of the first people, the *kaamalam*, to the sickness, death, and cremation of *Wiyoot*, the most powerful and wise one, at Lake Elsinore. According to available research, each Luiseño lineage possessed a permanent base camp or village on the valley floor and another in the mountain regions for acorn collection. Luiseño villages were made up of family members and relatives, where chiefs of the village inherited their rank, and each village owned its own land. Villages were usually located in sheltered canyons or near year-round sources of freshwater, always near subsistence resources.

When Spanish colonization of Alta California began in 1769, the Luiseño had approximately 50 active villages with an average population of 200 each. Some of the villages were forcefully moved to the Spanish missions, while others were largely left intact. Ultimately, Luiseño population declined rapidly after European contact because of diseases and harsh living conditions at the missions. After the American annexation of Alta California, almost all of the remaining Luiseño villages were displaced and their occupants eventually removed to the various reservations. Today, the nearest Native American groups of Luiseño heritage live on the Soboba, Pechanga, and Pala Indian Reservations.

According to EIC records, the Project area had not been previously surveyed for cultural resources although three surveys have been conducted adjacent to the site over the years. EIC records found that no resources had been recorded on or adjacent to the property. Outside the Project boundaries but within a one-mile radius of the site, EIC records show 29 previous cultural resources studies on various tracts of land in the surrounding area. The EIC search identified 2 historical/archaeological sites including a basin grinding feature (P-33-005318) within a half mile of the site and a 1964 single story vernacular commercial building (P-33-026430) within three-quarters of a mile of the site.

One of the known sites is of prehistoric (i.e., Native American) origin and consists of a bedrock milling feature which is the most common type of prehistoric site in western Riverside County. This site is located within a half mile of the Project site.

The CRA concluded there is no evidence to suggest any potential “historical resources” (in the archaeological sense) or “tribal cultural resources” are located within or adjacent to the Project site. The ground surface in the entire Project area has been disturbed in the past by various human activities including farming, ranching, and vehicles. Some

modern refuse was observed on the property, but none of the items was of any cultural interest.

Although the *CRA* indicated no archaeological resources were observed onsite, there is evidence of prehistoric activities in the surrounding area. Local Native American tribal representatives have also indicated they consider the entire region to be sensitive for finding tribal resources or archaeological artifacts.

The following standard City Conditions of Approval (COAs) are usually applied to all projects to reduce potential impacts to previously undiscovered archaeological resources that may be accidentally encountered during Project clearing and grading. With their implementation, potential impacts are less than significant.

COA - Inadvertent Archaeological Finds. If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Native American Tribe(s).

i. All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the developer, the archaeologist, the tribal representative(s) and the Community Development Director to discuss the significance of the find.

ii. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representative(s) and the archaeologist, a decision shall be made, with the concurrence of the Community Development Director, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

iii. Grading of further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal monitors if needed.

iv. Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the appropriate tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition.

v. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the project archaeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

vi. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the landowner and the Tribe(s) cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Community Development Director for decision. The City Community Development Director shall make the determination based on the provisions of the California

Environmental Quality Act with respect to archaeological resources, recommendations of the project archaeologist and shall take into account the cultural and religious principles and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the City Community Development Director shall be appealable to the City Planning Commission and/or City Council.”

COA - Cultural Resources Disposition. In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Menifee Community Development Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

ii. Reburial of the resources on the Project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

iii. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

COA - Archaeologist Retained. Prior to issuance of a grading permit, the project applicant shall retain a Riverside County qualified archaeologist to monitor all ground disturbing activities in an effort to identify any unknown archaeological resources.

The Project Archaeologist and the Tribal monitor(s) shall manage and oversee monitoring for all initial ground disturbing activities and excavation of each portion of the project site including clearing, grubbing, tree removals, mass or rough grading, trenching, stockpiling of materials, rock crushing, structure demolition and etc. The Project Archaeologist and the Tribal monitor(s), shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources in coordination with any required special interest or tribal monitors.

The developer/permit holder shall submit a fully executed copy of the contract to the Community Development Department to ensure compliance with this condition of

approval. Upon verification, the Community Development Department shall clear this condition.

In addition, the Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

- a. Project grading and development scheduling;
- b. The Project archaeologist and the Consulting Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;
- c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

COA - Native American Monitoring (Soboba). Tribal monitor(s) shall be required on-site during all ground-disturbing activities, including grading, stockpiling of materials, engineered fill, rock crushing, etc. The land divider/permit holder shall retain a qualified tribal monitor(s) from the Soboba Band of Luiseño Indians. Prior to issuance of a grading permit, the developer shall submit a copy of a signed contract between the above-mentioned Tribe and the land divider/permit holder for the monitoring of the project to the Community Development Department and to the Engineering Department. The Tribal Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archaeologist.

COA - Native American Monitoring (Pechanga). Tribal monitor(s) shall be required on-site during all ground-disturbing activities, including grading, stockpiling of materials, engineered fill, rock crushing, etc. The land divider/permit holder shall retain a qualified tribal monitor(s) from the Pechanga Band of Indians. Prior to issuance of a grading permit, the developer shall submit a copy of a signed contract between the above-mentioned Tribe and the land divider/permit holder for the monitoring of the project to the Community Development Department and to the Engineering Department. The Tribal Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archaeologist.

COA - Archaeology Report - Phase III and IV. Prior to final inspection, the developer/permit holder shall prompt the Project Archaeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

Furthermore, General Plan policies are in place to preserve and protect archaeological and historic resources and cultural sites, places, districts, structures, landforms, objects and native burial sites, traditional cultural landscapes and other features, consistent with state law and any laws, regulations or policies which may be adopted by the City (OCS-5.1).

For these reasons, the Project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. With implementation of the standard City COAs, impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Less Than Significant Impact

Because the Project site has been previously disturbed, no human remains, or cemeteries, are anticipated to be disturbed by the proposed Project. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed Project. It is also possible to encounter buried human remains during construction given the proven prehistoric occupation of the region, the identification of multiple surface archaeological resources within one mile of the Project site, and the favorable natural conditions that would have attracted prehistoric inhabitants to the area.

The following City Standard COAs are applied to all projects to reduce potential impacts to previously unknown human remains that may be unexpectedly discovered during Project implementation to a less than significant level:

COA - Human Remains. If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from

disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

COA - Non-Disclosure of Reburials Location. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code section 7927.000, 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 section 7927.000.

These COAs are supported by Health and Safety Code § 7050.5. These COAs are considered regulatory compliance and not project-specific mitigation under CEQA. With compliance with the above-referenced state law and standard conditions, potential impacts related to the discovery of human remains will be less than significant and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

6. ENERGY.

Source(s): *General Plan; GPEIR (Chapter 5.17, Utilities and Service Systems); and Villagio Apartments Air Quality and Greenhouse Gas Impact Study, City of Menifee*, prepared by RK Engineering Group, Inc., 12-8-0223 (AQ/GHG Analysis, **Appendix B1**).

Applicable General Plan Policies:

- **Goal OSC-4:** Efficient and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future generations.
- **Policy OSC-4.1:** Apply energy efficiency and conservation practices in land use, transportation demand management, and subdivision and building design.
- **Policy OSC-4.2:** Evaluate public and private efforts to develop and operate alternative systems of energy production, including solar, wind, and fuel cell.
- **Policy OSC-4.3:** Advocate for cost-effective and reliable production and delivery of electrical power to residents and businesses throughout the community.
- **Goal LU-3:** A full range of public utilities and related services that provide for the immediate and long-term needs of the community.
- **Policy LU-3.1:** Work with utility providers in the planning, designing, and siting of distribution and support facilities to comply with the standards of the General Plan and Development Code.
- **Policy LU-3.2:** Work with utility provides to increase service capacity as demand increases.
- **Policy LU-3.3:** Coordinate public infrastructure improvements through the City's Capital Improvement Program.
- **Policy LU-3.4:** Require that approval of new development be contingent upon the project's ability to secure appropriate infrastructure services.
- **Policy LU-3.5:** Facilitate the shared use of right-of-way, transmission corridors, and other appropriate measures to minimize the visual impact of utilities infrastructure throughout Menifee.

Analysis of Project Effect and Determination of Significance:

Note: Any tables or figures in this section are from the *AQ/GHG Analysis*, unless otherwise noted.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	

Less Than Significant Impact

Overview

There are many different types and sources of energy produced and consumed in the United States. The U.S. Energy Information Administration (EIA) categorizes energy by primary and

secondary sources, renewable and nonrenewable sources, and by the different types of fossil fuels. Primary energy is captured directly from natural resources and includes fossil fuels, nuclear energy, and renewable sources of energy. Electricity is a secondary energy source that results from the transformation of primary energy sources. A renewable energy source includes solar energy from the sun, geothermal energy from heat inside the earth, wind energy, biomass from plants, and hydropower from flowing water. Nonrenewable energy sources include petroleum products, hydrocarbon gas liquids, natural gas, coal, and nuclear energy. Fossil fuels are non-renewable resources formed by organic matter over millions of years and include oil, coal and natural gas.

The EIA defines the five energy consuming sectors within the United States as follows:

- **Industrial Sector:** Includes facilities and equipment used for manufacturing, agriculture, mining, and construction.
- **Transportation Sector:** Includes vehicles that transport people or goods, such as cars, trucks, buses, motorcycles, trains, aircraft, boats, barges, and ships.
- **Residential Sector:** Includes homes and apartments.
- **Commercial Sector:** Includes offices, malls, stores, schools, hospitals, hotels, warehouses, restaurants, and places of worship and public assembly.
- **Electric Power Sector:** Consumes primary energy to generate most of the electricity the other four sectors consume.

Energy sources are measured in different physical units: liquid fuels are measured in barrels or gallons, natural gas in cubic feet, coal in short tons, and electricity in kilowatts and kilowatt-hours. In the United States, British thermal units (Btu), a measure of heat energy, is commonly used for comparing different types of energy to each other.

According to the EIA, the three (3) main types of energy expected to be consumed by the Project include electricity, natural gas, and petroleum products in the form of gasoline and diesel fuel. Energy usage for the proposed Project was calculated as part of the *AQ/GHG Analysis*. The California Emissions Estimator Model Version 2022.1.1 (CalEEMod) was used to calculate energy usage from Project construction and operational activities.

Electricity Consumption

The Project will use electricity for many different operational activities including, but not limited to, building heating and cooling, lighting, appliances, electronics, mechanical equipment, electric vehicle charging, and parking lot lighting. Indirect electricity usage is also required to supply, distribute, and treat water and wastewater for the Project. Electricity will be provided through Southern California Edison. According to Table 13 in the *AQ/GHG Analysis*, the Project's estimated annual operational electricity consumption will be 170,734.5 kilowatt-hours per year (kWh/year). In 2020, the non-residential sector of the County of Riverside consumed approximately 8,015 million kWh of electricity.

Temporary electricity usage for construction activities may include lighting, electric equipment and mobile office uses. According to the *AQ/GHG Analysis*, the Project's estimated electricity consumption during construction would be 4,541 kilowatt-hours per year (kWh/year).

Natural Gas Consumption

The Project will use natural gas for building heating and cooling, cooking and kitchen appliances and water heating. Natural gas is not expected to be used during construction in

any significant quantities and is not included in the overall calculation of the Project's natural gas consumption. According to Table 13 in the *AQ/GHG Analysis*, the Project's estimated annual operational natural gas consumption would be 407,285.4 thousand British Thermal Units per year (kBtu/year). In 2020, the residential sector of the County of Riverside consumed approximately 135 million therms of gas, so the increase in natural gas demand from the proposed Project is insignificant compared to the County's 2020 residential sector demand.

Petroleum Consumption

The Project's energy consumption from petroleum products is primarily associated with transportation-related activities. This includes gasoline and diesel fuel used for auto and truck trips and off-road equipment during construction and operation and off-road equipment usage during construction.

1. Construction

Construction of the Project is estimated to last approximately 12 months and includes site preparation, grading, building construction, paving, and application of architectural coatings. Construction activities will consume energy in the form of motor vehicle fuel (gasoline and diesel) for off-road construction equipment and on-road vehicle trips. Vehicle trips include workers and vendors traveling to and from the job site. Onsite grading is expected to be balanced onsite so no hauling of soil on or off the site is anticipated. The Project's energy consumption for all off-road equipment during construction is estimated to be 10,926 gallons of diesel fuel while worker trips to and from the site during construction would consume an additional 822 gallons of fuel (mainly gasoline). The worker travel estimate is based on a total of 20,916 vehicle miles travelled (VMT). Finally, fuel consumption estimated for vendor and hauling during building construction and application of architectural coatings would be 387 gallons of fuel based on an estimated 2,700 VMT.

2. Operation

The Project is expected to consume energy from the generation of operational auto and truck trips based on the proposed residential land use. Vehicle trips are associated with workers, customers and vendors/non-workers (i.e., delivery, service and maintenance vehicles, etc.) traveling to and from the site. Table 11 in the *AQ/GHG Analysis* indicates the Project will generate a total of 506,389 annual or 1,387 daily vehicle miles traveled (VMT). Based on an overall average fleet fuel consumption rate of 18.5 miles per gallon, the Project would consume a total of 27,372 gallons of vehicle fuel per year (both gasoline and diesel). This amount of vehicular fuel represents a total of 9,653.1 million Btu per year consumed during Project operation. This estimate assumes the Project "fleet" would be comprised of 10 % vehicles that consume diesel fuel and 90 % vehicles that consume gasoline fuel. It also assumes one gallon of gasoline fuel equals 120,429 Btu and one gallon of diesel fuel equals 137,381 Btu.

Total Project Energy Consumption

The Project's total energy consumption is calculated at approximately 2,481.8 MBtu and shown in **Table 6-1, Total Project Energy Consumption**. Total Project energy consumption includes electricity, natural gas and petroleum usage during both construction and operation.

**Table 6-1
Total Project Energy Consumption**

Activity	Initial Energy Estimate	Total Annual Energy Consumption (MBtu)¹
Construction²		
Off-Road Equipment	10,926 gal diesel	1,501.03
On-Road Vehicle Trips	822 gal gasoline	99.02
Vender Hauling Trips	387 gal gasoline	46.61
Electricity Use	4,541 kWh	15.50
TOTAL	--	1,615.55
Operational		
Electricity	170,734.5 kWh/year	582,5
Natural Gas	407,235.4 kBtu/year	407,24
Petroleum	19,170 gal diesel and gasoline	2,492,1
TOTAL	--	3,481.80

¹ MBtu = Millions of Btu kWh = kilo-Watt hours k = thousand gal = gallons

Gasoline = 120,429 Btu/gal

Diesel = 137,381 Btu/gal

Electricity = 3,412 Btu/kWh

² Assumes all construction activity will occur within a one-year timespan.

The *AQ/GHG Analysis* observed that trip generation and VMT generated by the proposed Project are consistent with other similar residential uses of similar scale and configuration as reflected respectively in the ITE Trip Generation Manual 11th Edition, 2021). That demonstrates the proposed Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the State of California consumed approximately 4.2 billion gallons of diesel and 15.1 billion gallons of gasoline in 2020. Therefore, the increase in fuel consumption from the proposed Project is insignificant in comparison to the State's overall energy demand. Therefore, the Project's transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

The Project will be required to comply with the mandatory requirements of California's Building Energy Efficiency Standards (Title 24, Part 6) and Green Building Standards (CALGreen, Title 24, Part 11). California's building energy efficiency standards are some of the strictest in the nation and the Project's compliance with California's building code will ensure that wasteful, inefficient or unnecessary consumption of energy is minimized. The building standards code is designed to reduce the amount of energy needed to heat or cool a building, reduce energy usage for lighting and appliances and promote usage of energy from renewable sources. In addition, the Project will be required to comply with standard conditions and will not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Less Than Significant Impact

Regarding federal transportation regulations, the Project site is located in an already developed area and access to/from the Project site is from existing roads. These roads are already in place so the Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed in the Project area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the Project developer will be required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by Southern California Edison and Southern California Gas Company.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources. However, the vehicles associated with the proposed Project would be required to comply with federal and state fuel efficiency standards.

Regarding the State's Renewable Energy Portfolio Standards, the Project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CALGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. Additionally, the 2022 solar mandate requires installation of solar panels on new single-family homes and multi-family homes up to three stories high.

The Project will purchase electricity through Southern California Edison which is subject to the requirements of California Senate Bill 100 (SB 100) which is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045.

Therefore, the Project will not conflict with or obstruct a State or Local plan for renewable energy or energy efficiency. Any impacts are considered less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

7. GEOLOGY AND SOILS.

Source(s): *Map My County (Appendix A); Soil and Foundation Evaluation Report for Proposed Apartment Building Addition*, written by Soil Pacific Inc. dated 4-18-2021, (*Soil Report, Appendix E*); *General Plan*; and *GPEIR* (Chapter 5.6, *Geology and Soils*).

Applicable General Plan Policies:

- **Goal S-1:** A community that is minimally impacted by seismic shaking and earthquake-induced or other geologic hazards.
- **Policy S-1.1:** Require all new habitable buildings and structures to be designed and built to be seismically resistant in accordance with the most recent California Building Code adopted by the City.
- **Goal S-2:** A community that has used engineering solutions to reduce or eliminate the potential for injury, loss of life, property damage, and economic and social disruption caused by geologic hazards such as slope instability; compressible, collapsible, expansive or corrosive soils; and subsidence due to groundwater withdrawal.
- **Policy S-2.1:** Require all new developments to mitigate the geologic hazards that have the potential to impact habitable structures and other improvements.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.i) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	

Less Than Significant Impact

Although the Project site is located in seismically active Southern California, the site is not located within an Alquist-Priolo Earthquake Fault Zone. *Map My County* indicates the nearest active faults are the Temecula Branch of the Elsinore Fault (approximately 6.8 miles southwest) and the San Jacinto fault (approximately 11.9 miles northeast) of the Project site.

Based on this information, implementation of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Any impacts associated with rupture of a fault would be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.ii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?			X	

Less Than Significant Impact

The proposed Project would be subject to ground shaking impacts should a major earthquake in the area occur. Potential impacts include injury or loss of life and property damage. The Project site is subject to strong seismic ground shaking as are virtually all properties in Southern California. The Project shall be subject to the seismic design criteria of the most recent edition of the California Building Code (CBC) as adopted by the City of Menifee. This is a standard condition and is not considered unique mitigation under CEQA. The current CBC (California Code of Regulations, Title 24, Volume 2) contains seismic safety provisions with the aim of preventing building collapse during a design earthquake, so that occupants would be able to evacuate after the earthquake. Adherence to these requirements would reduce the potential of the structure from collapsing during an earthquake, thereby minimizing injury and loss of life. Although structures may be damaged during earthquakes, adherence to seismic design requirements would minimize damage to property within the structure because the structure is designed not to collapse. The CBC is intended to provide minimum requirements to prevent major structural failure and loss of life. The Project shall comply with the CBC requirements to address strong seismic ground shaking. This is a standard condition and is not considered unique mitigation under CEQA.

With adherence to standard conditions, implementation of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Impacts related to ground shaking would be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.iii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?			X	

Less Than Significant Impact

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The current standard of practice, as outlined in the "Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating

Liquefaction in California” and “Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California” requires liquefaction analysis to a depth of 50 feet below the lowest portion of the proposed structure. Based upon information in the *Soil Report*, groundwater in the Project vicinity is estimated to be in excess of 40 feet, thus the potential for liquefaction is considered minimal or unlikely. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

According to *Map My County*, the Project site is in a “low” liquefaction hazard zone. This indicates that the area has not been subject to historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions do not indicate potential for permanent ground displacement such that mitigation as defined in Public Resources Code § 2693(c) would be required. As such, the potential for earthquake-induced liquefaction and lateral spreading beneath the proposed structures is considered very low to remote due to the underlying geologic conditions, recommended compacted fill, lack of underlying groundwater, and the dense nature of the onsite earth materials.

Based on the above, implementation of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic-related ground failure, including liquefaction. Any impacts would be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.iv) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?			X	

Less Than Significant Impact

The Project site is located east of Interstate 215, and southwesterly of the southernmost extension of Encanto Road in the central portion of the City of Menifee, California. The Project site slopes down to the north with a minimum elevation of approximately 1,482 feet above mean sea level (AMSL) and a maximum elevation of approximately 1,492 feet AMSL. Therefore, landslides are not a design consideration. As depicted on **Figure 7-1, Surrounding Topography**, there are no other steep slopes within a one-quarter mile radius of the Project site.

Therefore, implementation the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Based on the proposed design of the Project, impacts related to landslides would be less than significant and no mitigation is required.

**FIGURE 7-1
ENDING TOPIC**



Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?			X	

Less Than Significant Impact

The Project site is within the Peninsular Ranges Geomorphic Province (Province). Geologic units within the Province consist of granitic and metamorphic bedrock highlands and deep and broad alluvium filled valleys. Specifically, the site is located on an old alluvial fan emanating from the surrounding Lakeview Mountains.

In particular, the *Soil Report* associated with this Project indicated that the site mostly consists of imported fill material, which will be removed or will be used and recompact to be suitable for construction.

The Project has the potential to expose surficial soils to wind and water erosion during construction activities. Wind erosion will be minimized through mandated soil stabilization measures by South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust), such as daily watering. Water erosion will be prevented through the City's standard, mandated, erosion control practices required pursuant to the CBC and the National Pollution Discharge Elimination System (NPDES), such as silt fencing, fiber rolls, or sandbags. Following the proposed Project construction phase, the Project site would be covered completely by paving, structures, and landscaping. These requirements are standard conditions and are not considered unique mitigation under CEQA.

Impacts related to soil erosion would be less than significant with implementation of existing regulations and standard conditions.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	

Less Than Significant Impact

Impacts related to liquefaction and landslides are discussed in Thresholds 7.a.iii, and 7.a.iv. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e., retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope.

It should be noted that *Map My County* indicates the site is susceptible to subsidence. However, given the topography of the size and its surroundings are relatively flat, onsite geologic and soil limitations can be accommodated by standard construction techniques recommended by the CBC.

Based upon information in the *Soil Report*, groundwater in the Project vicinity is estimated to be in excess of 40 feet, thus the potential for liquefaction is considered minimal or unlikely. Additionally, the Report concluded that the soils within the Project Site are not expansive, and that the removal and/or recompaction of the existing fill materials that make up the topsoil will make construction of the Project feasible.

Therefore, implementation of the proposed Project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Any impacts would be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial direct or indirect risks to life or property?			X	

Less Than Significant Impact

The Project site is located on an area that has been previously graded to accommodate the Interstate 215, its predecessor, and their expansions over the years.

The *Soil Report* made the following recommendations for the preparation of the site for construction:

1. The areas to receive compacted fill should be stripped of all vegetation, construction debris and trashes, non-engineered fill stockpiled at the mid center of the vacant parcel, left in place incompetent material up to approved soils. If soft spots are encountered, project soil engineer will evaluate the site conditions and will provide necessary recommendations.
2. The exposed grade should then be overexcavated to approved earth materials (estimated to -3 to 3 .5 feet below the existing grade). The excavated area should be scarified to a minimum of 8 inches, adjusted to optimum moisture content, and reworked to achieve a minimum of 90 % relative compaction. The proposed fill will cover the entire building pads area and will be measured from the lowest elevation (a minimum of 1.5 feet thickness below the foundation elevation).
3. Compacted fill should have a minimum of 1.5 feet depth below proposed footing and extend at least 5 feet beyond all perimeter footings or to a distance equal to the depth of the certified compacted fill, whichever is the greatest.
4. Compacted fill, consisting of on-site soil shall be placed in lifts not exceeding 6 inches in uncompacted thickness. The excavated onsite materials are considered satisfactory for reuse in the fill if the moisture content is near optimum. All organic material and construction debris should be removed and shall be segregated. Any imported fill should be observed, tested, and approved by the

soils engineer prior to use as fill. Rocks larger than 6 inches in diameter should not be used in the fill.

5. The fill should be compacted to at least 90 % of the maximum dry density for the material. The maximum density should be determined by ASTM Test Designation D 557-00.

6. Field observation, and compaction testing should be performed by a representative of Soil Pacific Inc. during the grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compaction effort should be made with adjustment of the moisture content, as necessary, until a minimum of 90 % relative compaction is obtained.

The site preparation methods recommended in the *Soil Report* adequately address potential impacts related to expansive soils and the City incorporates standard conditions of approval requiring adherence to these recommendations. These are standard conditions and are not considered unique mitigation under CEQA. With adherence to these recommendations, any impacts in this regard would be less than significant, and no mitigation measures are required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

No Impact

The Project proposes to connect to the existing Eastern Municipal Water District sewer system and will not require the use of septic tanks or leach fields. This threshold is not applicable to the proposed Project. There would be no impact.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Less Than Significant Impact

The Project site is mapped as a “High B” sensitivity area which means it has a high sensitivity for paleontological resources. *Map My County* states the site’s “sensitivity is equivalent to High A but is based on the occurrence of fossils at a specified depth below the surface. The Category High B indicates that fossils are likely to be encountered at or below four feet of depth and may be impacted during excavation by construction activities”.

Areas classified as high sensitivity may contain buried paleontological deposits at or below 4 feet of depth and may be impacted during construction. It is possible that potentially significant prehistoric remains could be found, since buried fossils often go undetected during a walkover survey. Prehistoric remains may have been buried by erosional sediments accumulating in this area and masked by existing pavement.

A Project-specific Paleontological Resources Assessment Report (*PRAP*) has not been submitted for review as of the date of this Initial Study.

Since the Project site is mapped in the County's General Plan as having a high potential for paleontological resources (fossils), the proposed Project site grading/earthmoving activities would need to be monitored for potential impacts to this resource and, therefore, the Project will include a standard condition to prepare a Paleontological Resource Impact Mitigation Program (PRIMP) prior to grading permit issuance and a monitoring program prior to issuance of the final grading permit.

The Project shall be required to retain a qualified paleontologist approved by the City. The paleontologist will participate in a pre-construction Project meeting and monitor earthmoving activities as well as provide guidance for instances where fossil remains are found and requires that the paleontologist prepare a report of findings during all site grading activity with an appended itemized list of fossil specimens recovered during grading (if any). This is a standard condition and is not considered unique mitigation under CEQA.

With implementation of standard conditions including preparation and implementation of a PRIMP, impacts to paleontological resources would be less than significant.

Mitigation Measures

No mitigation measures are required.

8. GREENHOUSE GAS EMISSIONS.

Source(s): *General Plan*; and *Villagio Apartments Air Quality and Greenhouse Gas Impact Study*, prepared by RK Engineering Group Inc., 12-8-2023 (AQ/GHG Analysis, **Appendix B1**).

Applicable General Plan Policies:

- **Goal OSC-4:** Efficient and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future generations.
- **Policy OSC-4.1:** Apply energy efficiency and conservation practices in land use, transportation demand management, and subdivision and building design.
- **Policy OSC-4.2:** Evaluate public and private efforts to develop and operate alternative systems of energy production, including solar, wind, and fuel cell.
- **Goal OSC-10:** An environmentally aware community that is responsive to changing climate conditions and actively seeks to reduce local greenhouse gas emissions.
- **Policy OSC-10.1:** Align the City's local GHG reduction targets to be consistent with the statewide GHG reduction target of AB 32.
- **Policy OSC-10.2:** Align the City's long-term GHG reduction goal consistent with the statewide GHG reduction goal of Executive Order S-03-05.
- **Policy OSC-10.3:** Participate in regional greenhouse gas emission reduction initiatives.
- **Policy OSC-10.4:** Consider impacts to climate change as a factor in evaluation of policies, strategies, and projects.

Analysis of Project Effect and Determination of Significance:

Note: Any tables or figures in this section are from the *AQ/GHG Analysis*, unless otherwise noted.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	

Less Than Significant Impact

Overview and Thresholds

Greenhouse Gas (GHG) emissions for the Project were analyzed in the *AQ/GHG Analysis* to determine if the Project could have an impact related to GHG emissions. These impacts are analyzed on a cumulative basis, utilizing Carbon Dioxide Equivalent (CO₂e), measured in metric tons (MT) or MTCO₂e. They were analyzed for both the construction and operational phases of the Project. The California Emissions Estimator Model Version 2020.1.1 (CalEEMod) was used to calculate GHG pollutants from the Project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria and GHG air pollutant emissions. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as emissions from off-site energy generation, solid waste disposal, vegetation planting

and/or removal, and water use. The model also helps identify mitigation measures to reduce criteria and GHG pollutant emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

The South Coast Air Quality Management District (SCAQMD) describes a five-tiered approach for determining GHG Significance Thresholds. The City of Menifee utilizes the Tier 3 Thresholds which consist of screening values that are intended to capture 90 % of the GHG emissions from projects. If a project's emissions are under the screening thresholds, then the project is less than significant. SCAQMD has presented two options that lead agencies could choose for screening values. Option #1 sets the thresholds for residential projects to 3,500 MTCO₂e/year, commercial projects to 1,400 MTCO₂e/year, and the mixed use to 3,000 MTCO₂e/year. Option #2 sets a single numerical threshold for all non-industrial projects of 3,000 MTCO₂e/year. The current staff recommendation is to use option #2 but allows lead agencies to choose option #1 if they prefer. Regardless of which option a lead agency chooses to follow, it is recommended that the same option is consistently used for all projects. **Table 8-1, SCAQMD Tier 3 GHG Screening Values**, shows the screening levels described in option #2, which has been used previously in the City of Menifee. The City of Menifee uses Option #2 (3,000 MTCO₂/year for all non-industrial projects).

**Table 8-1
SCAQMD Tier 3 GHG Screening Values**

Land Use	Screening Value
Industrial Projects	10,000 MTCO ₂ e/Year
Residential/Commercial Projects	3,000 MTCO ₂ e/Year

If its GHG emissions are less than the SCAQMD GHG thresholds of significance, a project is considered to have less than significant GHG emissions under CEQA and is in compliance with the applicable State GHG legislation.

The City of Menifee has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. A screening threshold of 3,000 MT CO₂e per year to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the City of Menifee and numerous cities in the South Coast Air Basin and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. The SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate.

Construction GHG Emissions

Greenhouse gas emissions are estimated for on-site and off-site construction activity using the most current version of the California Emissions Estimator Model® (CalEEMod 2020.4.1). **Table 8-2, Construction Greenhouse Gas Emissions**, shows the construction greenhouse gas emissions, including equipment and worker vehicle emissions for all phases of construction. Construction emissions are averaged over 30 years and added to the long-term operational emissions, pursuant to SCAQMD recommendations.

**Table 8-2
Construction Greenhouse Gas Emissions**

GHG Emissions (MTCO ₂ e) ¹			
Activity	Onsite	Offsite	Total
Site Preparation	0.39	0.03	0.42
Grading	1.56	12.56	14.12
Building Construction	59.39	14.43	73.82
Paving	1.87	0.54	2.41
Architectural Coating	0.30	0.11	0.41
Total	63.51	27.67	91.18
Amortized over 30 Years ²	2.12	0.92	3.04

¹ MTCO₂e=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbons). The emissions are averaged over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

² The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

Evaluation of the table above indicates that an estimated 67.66 MTCO₂E will occur from Project construction equipment over the course of the estimated construction period. The SCAQMD GHG Threshold Guidance document recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. Therefore, the total GHG emissions from Project construction were amortized (2.26 MTCO₂e) and are included in **Table 8-3, Operational Greenhouse Gas Emissions**.

Operational GHG Emissions

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Operational emissions associated with the Project would include GHG emissions from the following sources:

- Mobile sources (transportation)
- Energy (electricity and natural gas)
- Water use and treatment
- Solid Waste disposal

Mobile sources include emissions from the additional vehicle miles generated from the proposed Project. The vehicle trips associated with the proposed project have been analyzed based on CalEEMod defaults. The CalEEMod program then applies the emission factors for each trip which is provided by the EMFAC2021 model to determine the vehicular traffic pollutant emissions.

Energy usage includes emissions from the generation of electricity and natural gas used on-site. Water use and treatment includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. Solid waste disposal includes the GHG emissions generated from the processing of waste from the proposed Project as well as the GHG emissions from the waste once it is interred into a landfill.

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in **Table 8-3, Operational Greenhouse Gas Emissions**.

**Table 8-3
Operational Greenhouse Gas Emissions**

Emission Source	GHG Emissions (MTCO₂e)¹
Mobile Source	179.46
Energy Source	63.03
Area Source	6.15
Water	3.20
Waste	5.57
Refrigerant	0.03
Construction (amortized over 30 years)	3.04
Total Annual Emissions	260.48
SCAQMD Tier 3 Screening Threshold ²	3,000.00
Exceed Tier 3 Threshold?	No

¹ MTCO₂e = metric tons of carbon dioxide equivalents

² Per South Coast Air Quality Management District (SCAQMD) Draft Guidance Document - Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008

The analysis compares the Project's GHG emissions to the SCAQMD's Tier 3 approach, which limits GHG emissions to 3,000 MTCO₂e. As shown in **Table 8-3**, Project GHG emissions are expected to 260.48 MTCO₂e which is well below the 3,000 MTCO₂e SCAQMD threshold.

In addition, the Project must follow all standard SCAQMD rules and requirements which are standard conditions. Compliance with these conditions is considered a standard requirement and included as part of the Project's design features, not unique mitigation under CEQA.

Therefore, the Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Less Than Significant Impact

The Project is consistent with the land use designation and zoning requirements for this site. Additionally, the Project will comply with the mandatory requirements of Title 24 Part 1 of the California Building Standards Code and Title 24 Part 6 Building and Energy Efficiency Standards. The Project will be consistent with all the applicable plans, policies and regulations for the purpose of reducing GHG gases.

In addition, the SCAQMD's Tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening levels outlined in Threshold 8.a above. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 % below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which was phased in starting in 2012.

Therefore, as the Project's emissions meet the threshold for compliance with Executive Order S-3-05, the project's emissions also comply with the goals of AB 32. Additionally, as the project meets the current interim emissions targets/thresholds established by SCAQMD, the Project would also be on track to meet the reduction target of 40 % below 1990 levels by 2030 mandated by SB 32. Furthermore, the majority of post 2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the Project will be required to comply with these regulations as they come into effect. Therefore, the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Impacts are less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

9. HAZARDS AND HAZARDOUS MATERIALS.

Source(s): *Map My County (Appendix A); Figure 3, General Plan Land Use Designations, and Figure 8, Aerial Photo, provided in Section I of this Initial Study; Phase I Environmental Site Assessment, RSP Project No. 2308347, prepared by RSB Environmental, 9-7-2023 (Phase I ESA, Appendix J); General Plan; GPEIR (Chapter 5.8, Hazards and Hazardous Materials); Menifee Union School District website; Perris Union High School District website; Riverside County Airport Land Use Commission (RCALUC) Development Review – Director’s Determination, prepared by RCALUC, 8-2-2023 (ALUC Letter, Appendix I); March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan, November 13, 2014, Map MA-1; and Google Earth.*

Applicable General Plan Policies:

- **Goal S-4:** A community that has effective fire mitigation and response measures in place, and as a result is minimally impacted by wildland and structure fires.
- **Policy S-4.1:** Require fire-resistant building construction materials, the use of vegetation control methods, and other construction and fire prevention features to reduce the hazard of wildland fire.
- **Policy S-4.2:** Ensure to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure, and response times, are adequate for all sections of the city.
- **Policy S-4.4:** Review development proposals for impacts to fire facilities and compatibility with fire areas or mitigate.
- **Goal S-5:** A community that has reduced the potential for hazardous materials contamination.
- **Policy S-5.2:** Ensure that the fire department can continue to respond safely and effectively to a hazardous materials incident in the City, whether it is a spill at a permitted facility, or the result of an accident along a section of the freeway or railroads that extend across the City.
- **Policy S-5.4:** Ensure that all facilities that handle hazardous materials comply with federal and state laws pertaining to the management of hazardous wastes and materials.
- **Policy S-5.5:** Require facilities that handle hazardous materials to implement mitigation measures that reduce the risks associated with hazardous material production, storage, and disposal.
- **Goal S-6:** A City that responds and recovers in an effective and timely manner from natural disasters such as flooding, fire, and earthquakes, and as a result is not impacted by civil unrest that may occur following a natural disaster.
- **Policy S-6.1:** Continuously review, update, and implement emergency preparedness, response, and recovery plans that make the best use of the City- and county-specific emergency management resources available.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	

Less Than Significant Impact

The proposed Project could result in a significant hazard to the public if it includes the routine transport, use, or disposal of hazardous materials or places housing near a facility which routinely transports, uses, or disposes of hazardous materials. The Project consists of the development of 24 new apartment units adjacent to and to be integrated into an older existing apartment complex. The operation of such residential uses would not involve the use of substantial amounts of hazardous materials. Household cleaning supplies would be used in small quantities to support the apartments. Compliance with all Federal, State, and local regulations governing the storage and use of hazardous materials is required and will ensure that the Project operates in a manner that poses no substantial hazards to the public or the environment.

The Project site is situated approximately 175 feet east of Interstate-215 (I-215). The Project site is located in the southwest portion of the existing Villagio Villas Apartment neighborhood and a half-mile south of McCall Boulevard in the south-central portion of the City of Menifee. Within the Project area I-215 is regularly used to transport hazardous materials via trucks that are required by various industrial uses mainly in western Riverside County. The transport of such materials is regulated by various federal and state laws and regulations.

The Project site consists of 0.82-acre of land that was previously owned by Caltrans within the 215 rights-of-way. Caltrans recently sold the property to a developer to construct 2 apartment buildings that would become part of the existing adjacent apartment complex. The site is bounded on the north and east by the existing apartment complex (General Plan land use 20.1-24 R and zoned High Density Residential or HDR), and on the west and south by the I-215 and a multi-family residential neighborhood (General Plan land use 8.1-14 R and zoned Medium Density Residential or MDR). The Project is located between the I-215 Freeway on the west and the Villagio Villas Apartments on the east.

The proposed Project would not place housing near any hazardous materials facilities. The routine use, transport, or disposal of hazardous materials is primarily associated with industrial uses that require such materials for manufacturing operations or produce hazardous wastes as by-products of production applications. The Project does not propose or facilitate any activity involving significant use, routine transport, or disposal of hazardous substances as part of the planned residential units or small Caltrans maintenance shed proposed in the southern portion of the site.

During construction, there would be the transport, use, and disposal of hazardous materials and wastes that are typical of construction projects. This would include fuels and lubricants for construction machinery, coating materials, etc. Routine construction control measures and best management practices for hazardous materials storage, application, waste disposal, accident prevention and clean-up, etc. would be sufficient to reduce potential impacts to less than significant levels.

Therefore, based on the above, because the transport, use, storage, and disposal of hazardous materials pertaining to the proposed Project would be relatively minor and subject to extensive regulatory oversight, the impact would be less than significant. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. Impacts associated with the routine transport and use of hazardous materials or wastes would be less than significant and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	

Less Than Significant Impact

The proposed Project is not located on a site listed on the state Cortese List, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses.

The Project site is currently undeveloped. There would be no impacts related to the demolition of structures with asbestos containing materials or lead-based paint. Therefore, the potential for the Project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be relatively low.

According to the *Phase I ESA*, the surrounding area was historically used for agricultural (dry-farming) from the late-1930's to the mid 2010's. However, there is no evidence the Project site was dry farmed as it was associated first with railroad right-of-way and then with Caltrans right-of-way for the 215 Freeway beginning in the 1960's and never supported any buildings or development. Beginning in the late 1990's the site was bounded in the southeast, east, and northeast by the "Villa La Paz" apartments but were later renamed to the "Villaggio Villas" apartments. There is no evidence that the Project site or adjacent apartments have experienced any spills or incidents involving hazardous materials.

Currently, the property is vacant and regularly maintained through weed abatement. Environmentally persistent pesticides commonly applied prior to the 1980s can linger in the soil for many years. It is not known if environmentally persistent pesticides were applied in the Project vicinity. However, dry farming activities typically use the least amount and variety of agricultural chemicals compared to more intensive farming (e.g., row crops, orchards). Based upon the length of time that has elapsed since agricultural usage has occurred (i.e., circa 1980), it is unlikely the potential former usage of pesticides has significantly contaminated soils in the Project area that would require remedial actions. As such, any impacts would be less than significant, and no mitigation is required.

Despite the lack of historical use of the site, the potential still exists for an unanticipated leak or other hazmat event to occur during construction. With adherence to existing local, state and federal regulations, as they pertain to the treatment of hazardous materials, construction of the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of

hazardous materials into the environment. Any impacts would be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

Less Than Significant Impact

The Project site is located within the boundaries of the Menifee Union School District (MUSD) for elementary and middle school, and Perris Unified High School District (PUHSD) for high school. There are no schools within a quarter mile of the Project site, and the existing school closest to the Project site is Hans Middle School located 0.75-mile north-northeast of the Project site. In addition, the serving school districts' websites indicate that no elementary, middle, or high schools are proposed within one-quarter mile of the Project site.

As discussed in Thresholds 9.a and Threshold 9.b, construction or operation of the proposed Project may result in the routine transport, use, or disposal of hazardous materials which may result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, routine construction control measures and best management practices for hazardous materials storage, application, waste disposal, accident prevention and clean-up, etc. would be employed in conjunction with implementation of the proposed residential Project.

With adherence to existing local, state and federal regulations, as they pertain to the treatment of hazardous materials, the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Any impacts would be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X

No Impact

The proposed Project is not located on a site listed on the state Cortese List, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses. According to information compiled from governmental databases, the Project site is not:

- Listed as a hazardous waste and substance site by the Department of Toxic Substances Control (DTSC)
- Listed as a leaking underground storage tank (LUST) site by the State Water Resources Control Board (SWRCB)
- Listed as a hazardous solid waste disposal site by the SWRCB
- Currently subject to a Cease-and-Desist Order or a Cleanup and Abatement Order as issued by the SWRCB
- Developed with a hazardous waste facility subject to corrective action by the DTSC

Reference **Figure 9-1, GeoTracker** and **Figure 9-2, EnviroStor**.

It should be noted there are five (5) facilities listed on both the Geotracker and EnviroStor database websites that involve hazardous materials. They all involve Leaking Underground Storage Tanks as outlined in **Table 9-1, Local Hazmat Sites**. An evaluation of the types of hazardous materials (hazmat) involved, the date of the involvement, any remediation, and distance from the Project site were evaluated and it was determined that none of these sites represent a significant environmental risk or human health hazard to the Project site or its residents.

Based on the above information, there would be no impact related to hazmat sites caused by the Project or that would affect the Project and no mitigation is required.

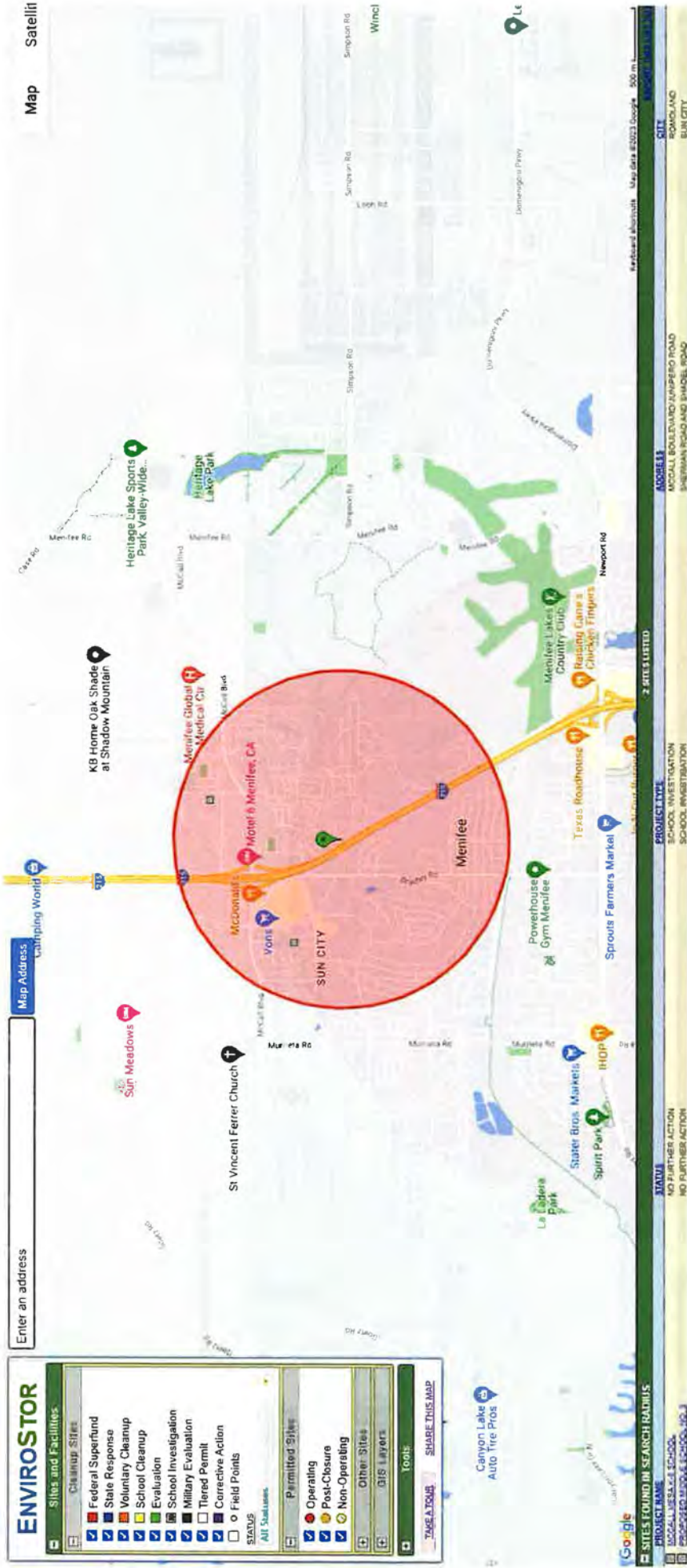
**Table 9-1
Local Hazmat Sites**

Facility	Distance/Direction from Project Site	Hazmat Issue	Status
Bradley Auto Center 28200 Bradley Rd.	0.25-mile northwest (across I-215)	LUST Cleanup – groundwater contamination from gasoline and diesel	Case still open but being remediated
Unocal Station #500 26980 Cherry Hills Blvd.	0.32-mile northwest (across I-215)	LUST Cleanup - groundwater contamination from gasoline and diesel	Remediated and Case Closed 8/2013
Texaco Sun City 27181 McCall Blvd.	0.50-mile north	LUST Cleanup - groundwater contamination from gasoline and diesel	Case still open and latest regulatory action 1/2016
Unocal Station #5597 27180 McCall Blvd.	0.53-mile north	LUST Cleanup – soil contamination from gasoline fuel	Remediated and Case Closed 8/1993
Cherry Hills Golf Club 26600 Sun City Blvd.	0.40-mile west (across I-215)	LUST Cleanup – soil contamination from gasoline fuel	Remediated and Case Closed 4/1989

FIGURE 9-1



FIGURE 9-2
ENVIROSTOR - 1 MILE RADIUS



Source: <https://www.envirostor.dtsc.ca.gov/public/>



Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?				X

No Impact

The closest airports to the Project site are the March Air Reserve Base/Inland Port 10.6 miles to the northwest and the French Valley Airport 9.8 miles to the southeast. The Project site is located within the March Air Reserve Base / Inland Port Airport Land Use Influence Boundary Area and Compatibility Zone “E”. As described in the March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan, Compatibility Zone E is beyond the 55-CNEL contour. The City of Menifee General Plan EIR classifies noise environments of 55 CNEL as “Normally Acceptable” for all residential uses based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

After evaluating potential airport-related impacts of the proposed Project, the Riverside County Airport Land Use Commission (RCALUC) issued a letter on August 2, 2023, indicating the Project was consistent with the March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan with implementation of four (4) Conditions of Approval regarding noticing, landscaping restrictions, and lighting limitations/prohibitions. Implementation of these conditions is considered regulatory compliance and no unique mitigation under CEQA. With implementation of these required RCALUC conditions, the Project will have no impacts regarding airport hazards or noise.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

Less Than Significant Impact

The Project proposes to add two apartment buildings with 24 new apartment units to an existing apartment complex. develop a residential community. Primary and secondary access to the Project site would be provided via an existing loop internal street connecting via Encanto Drive to McCall Boulevard a half-mile to the north.

A limited potential exists for the Project to interfere with an emergency response or evacuation plan during construction. However, given the size of the Project and its site, this potential risk will be extremely low. Construction work on the site and in the street adjacent to the site within the existing apartment complex would be minimal. It is noted that utility lateral connections are already in place. The minimal impact is associated with construction activities and material movement along internal streets of the apartment complex which could result in some traffic

diversion and/or delays. Control of access will ensure emergency access to the site and Project area during construction through the submittal and approval of a traffic control plan.

The traffic control plan (TCP) is designed to alleviate any construction circulation impacts. The TCP is a standard condition and is not considered unique mitigation under CEQA. Following construction, emergency access to the Project site and area will remain as was prior to the proposed Project.

All Project elements, including landscaping, will be located with sufficient clearance from the proposed buildings so as not to interfere with emergency access to and evacuation from the site. The proposed Project is required to comply with the California Fire Code as adopted by the Menifee Municipal Code.

The proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan, because no permanent public street or lane closures are proposed.

Project impacts would be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Less Than Significant Impact

There is a series of low hills in the general Project area to the south trending around to the northeast approximately one mile distant from the site. However, the proposed Project site is not located within an isolated Very High Fire Hazard Safety Zone or a State or Local Responsibility Area mainly due to the developed nature of the surrounding area. The proposed Project has been reviewed, and conditions of approval have been issued to address any potential impacts to Fire Resources, consistent with the Fire Hazards section of the Safety Element of the General Plan. As part of the Project approval(s), standard conditions are assessed on the proposed Project to reduce impacts to fire services. Prior to final map recordation, prior to grading permit issuance, prior to building permit issuance, and prior to building final inspection, the Project will need to demonstrate compliance with the General Plan as well as with the current building code. Adherence to the other fire protection regulatory compliance are typically standard conditions of approval and are not considered unique mitigation pursuant to CEQA. With application of the appropriate sections of the Building Code, potential impacts from fire hazards are less than significant and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

10. HYDROLOGY AND WATER QUALITY.

Source(s): *Preliminary Drainage Study for Villaggio Apartments*, prepared by Rick Engineering Company, 10-27-2023 (*Drainage Report*, **Appendix F1**); *Project Specific Water Quality Management Plan, Villaggio Apartments*, prepared by Rick Engineering Company, 10-27-2023 (*WQMP*, **Appendix F2**); *Soil and Foundation Evaluation Report for Proposed Apartment Building Addition*, , prepared by Soil Pacific Inc., 4-18-2021 (*Soils Report*, **Appendix E**); *2020 Urban Water Management Plan (UWMP)*, Eastern Municipal Water District; *Metropolitan Water District 2020 Regional Urban Water Management Plan (RUWMP)*; *2019 Sewer System Management Plan*, EMWD; *Project Plans* (**Appendix K**); and *Will Serve Letters*, prepared by EMWD (3-6-2024) and Waste Management (2-27-2024) (**Appendix L**).

Applicable General Plan Policies:

Safety Element

- **Goal S-3:** A community that is minimally disrupted by flooding and inundation hazards.

Open Space and Conservation (OSC) Element

- **Policy OSC-7.9:** Ensure that high quality potable water resources continue to be available by managing stormwater runoff, wellhead protection, and other sources of pollutants.
- **Policy OSC-7.10:** Preserve natural floodplains, including Salt Creek, Ethanac Wash, Paloma Wash, and Warm Springs Creek, to facilitate water percolation, replenishment of the natural aquifer, proper drainage, and prevention of flood damage.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	

Less Than Significant Impact

The federal Clean Water Act (CWA) establishes the framework for regulating municipal storm water discharges (construction and operational impacts) via the National Pollutant Discharge Elimination System (NPDES) program. A project would have an impact on surface water quality if discharges associated with the Project would create pollution, contamination, or nuisance as defined in Water Code Section 13050, or that cause regulatory standards to be violated as defined in the applicable NPDES storm water permit or Water Quality Control Plan for a receiving water body. Relative to this specific issue, a significant impact could occur if the Project would discharge water that does not meet the quality standards of the agencies that regulate surface water quality and water discharge into storm water drainage systems. Significant impacts could also occur if the Project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include preparation of a Water Quality

Management Plan (WQMP) to reduce potential post-construction water quality impacts. A WQMP and a *Drainage Report* were prepared for the proposed Project.

On January 29, 2010, the Santa Ana Regional Water Quality Control Board (SARWQCB) issued the 4th-term area wide NPDES and Municipal Separate Storm Sewer System Permit (MS4 Permit) to the City of Menifee and other applicable Permittees. All new development in the City is required to comply with provisions of the NPDES program, including Waste Discharge Requirements (WDR), and the City's Municipal Separate Sewer Permit (MS4), Order No. R8-2010-0036, NPDES Permit No. CAS618036, as enforced by the SARWQCB. All design submittals and construction projects are required to conform to the permit requirements. Furthermore, all projects are required to install Best Management Practices (BMPs) in compliance with the 2010 SARWQCB permit.

According to the WQMP, the Project site and the City of Menifee is located in the Santa Ana River Watershed. The watershed covers approximately 2,800 square miles with about 700 miles of rivers and major tributaries. More specifically, the Project site is located within Reach 4 of the Santa Ana River Watershed and the San Jacinto Valley Sub-Watershed. Runoff from the Project site would flow into Salt Creek, Canyon Lake (Railroad Canyon Reservoir), San Jacinto Creek (Reach 1), then into Lake Elsinore far downstream of the site. During flooding and heavy storms, Lake Elsinore drainage overflows into the Temescal Wash via Temescal Creek (portion of the Elsinore Sub-Watershed) which extends north/northwest to its confluence with the Santa Ana River at the Prado Dam. **Table 10-1, Downstream Receiving Bodies**, shows the four closest water bodies downstream of the Project site and their water quality restrictions under the Clean Water Act (CWA) Section 303 (d) – Impaired Receiving Waters. The designated beneficial uses of these waterways are part of the Santa Ana River Basin Plan which protects regional water quality. It should be noted the table only shows those water bodies to Lake Elsinore which does not drain further under normal flow conditions – other downstream bodies can include Temescal Creek, the Santa Ana River, and the Pacific Ocean under extreme runoff conditions.

**Table 10-1
Downstream Receiving Bodies**

Receiving Waters	U.S. EPA Approved CWA 303(d) List Impairments	Designated ¹ Beneficial Uses
Salt Creek	None	REC1-REC2-WARM-WILD
Canyon Lake (Railroad Canyon Reservoir)	Pathogens, Nutrients	MUN-AGR-GWR-REC1-REC2-WARM-WILD
San Jacinto River Reach 1		MUN-AGR-GWR-REC1-REC2-WARM-WILD-RARE
Lake Elsinore	Nutrients, PCB's, Organic Enrichment/ Dissolved Oxygen, Sediment Toxicity, Unknown Toxicity	REC-1-REC2-WARM-WILD

¹ AGR=agriculture, GWR=groundwater recharge, MUN=municipal water supply, REC-1=contact recreation, REC-2=non-contact recreation, WARM=warm freshwater habitat, WILD=wildlife

The Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), last updated in June 2019, establishes water quality standards for groundwater and surface water in the basin, and standards for both beneficial uses of specific water bodies and the water quality levels that must be maintained to protect those uses. The Basin Plan includes an implementation plan describing actions by the Santa Ana RWQCB and others needed to achieve and maintain the water quality standards. The Santa Ana RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's groundwater and surface waters. The Basin Plan lists water quality problems for the region along with their causes where they are known. Plans for improving water quality are included for water

bodies with quality below the levels needed to enable all the beneficial uses of the water.

At present, the 0.82-acre Project site is vacant and possesses a 100 % pervious earthen surface. There are no on-site drainage improvements, the site is relatively flat, but the existing site drainage pattern is to the north. The Project *Drainage Plan* identifies one Drainage Management Area (DMA-1) that covers the entire site.

The proposed Project is the development of 0.82-acre with 24 apartment units. The site is located at the southern end of Encanto Drive a half-mile south of McCall Boulevard. The Project is anticipated to be built out in one phase and to be completely occupied in 2024.

The site has been designed to drain to the east into the existing apartment complex after first flowing into an underground infiltration vault in the northwest corner of the site that will provide water quality and storm water management for the development. The vault has been designed based on site-specific drainage information to accommodate surface runoff within the Project site under post-development conditions as outlined in the Project *Drainage Report* and *WQMP*.

Construction Impacts

The Project site is relatively small but clearing and grading phases would disturb surface soils along with a small amount of low-lying vegetation, potentially resulting in erosion and sedimentation. If left exposed and with no vegetative cover, the Project site's bare soil would be subject to wind and water erosion. Three general sources of potential short-term, construction-related stormwater pollution associated with the proposed Project include: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth-moving activities which, when not controlled, may generate soil erosion via storm runoff or disturbance by mechanical equipment.

Since the Project involves less than one acre of ground disturbance, it may not be subject to the typical NPDES permit requirements for the preparation and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP). Adherence to NPDES permit requirements and the measures established in the SWPPP are routine actions conditioned by the City and would ensure applicable water quality standards are appropriately maintained during construction of the proposed Project. A SWPPP is considered regulatory compliance and not unique mitigation under CEQA. The *WQMP* also indicates the Project will be covered by the Statewide Construction General Permit. Based on Project design and regulatory compliance, construction-related water quality impacts are less than significant, and no mitigation is required.

Operational Impacts

Development of the proposed residential Project would substantially increase the impervious area of the 0.82-acre site by replacing vacant land with two apartment buildings, paved streets, driveways, landscaping, and an underground infiltration vault with a design capture volume of 1,272.5 cubic feet (cf) and a design capacity of 1.700 cf as the primary Best Management Practice (BMP-1) recommended in the *WQMP*. Landscaping of front and back yards will contain various trees, shrubs, and ground covers. The site currently has 98% pervious surfaces and the *WQMP* indicates the site will have approximately 25% pervious (0.2-acre) and 75% impervious (0.6-acre) surfaces when completed. Based on Project design and regulatory compliance, water quality impacts related to Project operation are less than significant and no mitigation is required.

Conclusion

The proposed Project development plan has been reviewed and conditioned by the City of Menifee Engineering Department and Building & Safety Department, among others, to reduce any potential impacts as listed above through site design. Since the Project involves more than one acre of ground disturbance, it is subject to NPDES permit requirements for the preparation and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP). Adherence to NPDES permit requirements and the measures established in the SWPPP are routine actions conditioned by the City and will ensure applicable water quality standards are appropriately maintained during construction of the proposed Project.

In addition, the Project has prepared a *WQMP* pursuant to the requirements of the NPDES. The SWPPP and *WQMP* are standard conditions of the City and are not considered mitigation for CEQA implementation purposes.

At Project completion, the Project site will be covered mainly by apartment buildings, driveways, and landscaping. The *Drainage Report* and *WQMP* demonstrate that the Project will not contribute to erosion, siltation, or other water pollutants to downstream drainages. Therefore, the proposed Project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Any impacts will be less than significant, and no mitigation is required

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?			X	

Less Than Significant Impact

The Project site is within the service area of the Eastern Municipal Water District (EMWD) which has indicated it can provide water to the proposed Project (see Will Serve Letter, **Appendix L**).

EMWD is a public water agency formed in 1950 and annexed into the service area of the Metropolitan Water District of Southern California (MWD) in 1951. It is currently one of MWD's 26 member agencies and presently operates its water supply system under a system permit issued by the California Department of Public Health. Presently, EMWD has four sources of water supply: 1) Potable groundwater; 2) Desalinated groundwater; 3) Recycled water; and 4) Imported water from MWD. According to 2020 figures, imported water accounts for approximately 46% of the total water supply, while local potable groundwater accounts for approximately 12%, desalted groundwater was approximately 6%, and recycled water is approximately 36%.

There is no direct evidence of depth to groundwater on the site or in the surrounding area, although the *Soils Report* indicates that groundwater was believed to be at a depth of 40 feet or more beneath the site.

The Project would be supplied with water by EMWD which uses imported water from MWD,

local groundwater, and recycled water to meet its customer demands. Using imported surface water helps prevent overdraft of local groundwater basins. The proposed Project is consistent with the General Plan and zoning designations for the site (medium density residential). The EMWD's 2020 *UWMP* was based on the land uses of the City's General Plan, so the *UWMP* accounts for future growth like the proposed Project. The anticipated available water supply within EMWD's retail service area is anticipated to be greater than the demand for water in the future, which indicates that EMWD has available capacity to serve the proposed Project without significant adverse impacts on area groundwater basins.

A groundwater recharge/storage program within the San Jacinto Basin has been developed by EMWD. It was concluded that the average percolation rate in these basins is 6.30 feet/day and it was determined that imported water can be successfully stored seasonally.

As stated above, local potable groundwater accounted for approximately 12% of the EMWD water supply in 2020, desalted groundwater was approximately 6%, and recycled water was approximately 36%. Most of the remaining water demands are met with imported water purchased from MWD. According to the 2020 *RUWMP*, over 90% of the groundwater used in Metropolitan's service area is produced from adjudicated or managed groundwater basins.

The Project proposes to change the runoff characteristics of the site from 98% pervious to 25% pervious surfaces so less natural runoff would percolate back into the ground. However, the Project includes an underground infiltration vault which will allow onsite runoff to percolate back into the ground. Thus, no component of the proposed Project will deplete groundwater supplies beyond identified and planned capacities. The Project design, as depicted on the Project plans and Project-specific *WQMP*, will allow for water to percolate back into the ground and allow for continued local groundwater recharge and no increase in offsite runoff. This will offset any impacts from the other non-pervious elements contained in the proposed Project.

Therefore, implementation of the proposed Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. Any impacts are less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.i) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?			X	

Less Than Significant Impact

Please reference the discussion set forth in Threshold 10.b, relative to the Project design which will not substantially alter the existing drainage pattern of the site or the area. The existing onsite drainage is via sheetflow from the southeast to the northwest and the Project will install an underground detention and infiltration vault in the northwest corner of the site to collect runoff and provide passive water quality treatment and detention/infiltration. There

are no natural streams, rivers or discernable drainage features within, contiguous to, or adjacent to, the Project site.

Development of the proposed residential Project would substantially increase the impervious area of the site although the area of the site is very small (0.82-acre) by replacing vacant land with two apartment buildings and associated improvements. Landscaping will contain various trees, shrubs, and ground covers. The site currently has 98% pervious surfaces and the *WQMP* indicates the site will have approximately 25% pervious (0.2-acre) and 75% impervious (0.6-acre) surfaces when completed.

As set forth in Table 2.1 of the Project *Drainage Report*, the 100-year storm runoff (Q_{100}) for the existing site is estimated to be 2.8 cubic feet per second (cfs) while the post-development Q_{100} runoff would be 4.7 cfs (+1.9 cfs). The increased runoff in the post-development condition will be accommodated in the underground retention and infiltration vault in the northwest corner of the site so there will be no net increase in offsite downstream runoff as a result of the proposed Project. The SWPPP and the *WQMP* will address and control potential erosion both in the short-term during construction and over the long-term during Project occupancy.

The proposed Project is not anticipated to significantly change the volume of flows downstream of the Project site and would not be anticipated to change the amount of surface water in any water body in an amount that could initiate a new cycle of erosion or sedimentation downstream of the Project site.

Surface runoff will be discharged in conformance with Riverside County and City of Menifee requirements. The downstream drainage system will not need to be altered given the control of future surface runoff from the Project site. Implementation of the SWPPP and *WQMP* will ensure that the post-Project development of the site will not cause or result in substantial on- or off-site erosion or siltation. Any impacts will be less than significant, and with regulatory compliance, no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.ii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	

Less Than Significant Impact

Table 2.1 of the Project *Drainage Report* shows that the 100-year storm runoff (Q_{100}) for the existing site is estimated to be 2.8 cubic feet per second (cfs) while the post-development Q_{100} runoff would be 4.7 cfs (+1.9 cfs). The increased runoff in the post-development condition will be accommodated in the underground retention and infiltration vault in the northwest corner of the site so there will be no net increase in offsite downstream runoff as a result of the proposed Project. The SWPPP and the *WQMP* will address and control potential erosion both in the short-term during construction and over the long-term during Project occupancy. The *Drainage Report* and the *WQMP* state the post development

runoff will be accommodated in the onsite underground infiltration vault (design capture volume of 1,272.5 cf and a design volume of 1,700 cf) so there will be no net increase in offsite downstream runoff as a result of the proposed Project.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) program and FIRMETTE¹ website, the Project site and immediate surrounding area are designated as FEMA Flood Zone X (FIRM Map Panel 06065C2060H dated 8/18/2014. This zone is defined as “Areas of 0.2%-annual-chance floodplain, areas of 1%-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile or areas protected from the base flood by levees.” This zone is considered to have a low to moderate risk of flooding.

The proposed Project will not alter the existing drainage pattern onsite (i.e., southeast to northwest) but will maintain the existing offsite downstream drainage system through control of future discharges from the site through the underground infiltration vault which would prevent flooding onsite or offsite from occurring. The onsite drainage system will capture the incremental increase in runoff from the Project site associated with Project development.

Surface runoff will be discharged in conformance with Riverside County and City of Menifee requirements and as described in the *WQMP*. Thus, the implementation of onsite drainage improvements and applicable requirements included in the *WQMP*, and the *Drainage Report* will ensure that stormwater runoff will not substantially increase the rate or volume of runoff in a manner that would result in substantial flooding on- or off-site. Impacts under this issue are considered less than significant with no mitigation required.

With implementation of the infiltration basin as part of the Project design, impacts related to the alteration of the existing drainage pattern in a manner that would result in on- or off-site flooding would be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.iii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	

Less Than Significant Impact

The proposed Project will alter the site such that stormwater runoff will be increased but will not impact the existing off-site downstream drainage system through control of future discharges from the site. The planned system of drainage improvements and the underground retention and infiltration vault will prevent runoff from the site from exceeding the capacity of existing or planned stormwater drainage systems and from providing substantial additional sources of polluted runoff. The *Drainage Report* and *WQMP*

¹ <https://msc.fema.gov/portal/search?AddressQuery=city%20of%20menifee%2C%20CA>

determined the planned infiltration vault will effectively capture and pre-treat all runoff from the site.

This system is designed to capture flows up to the peak 100-year flow runoff from the Project site to be detained on site and discharged in conformance with Riverside County requirements. Without improvements, Project runoff may contain varying amounts of urban pollutants such as motor oil, antifreeze, gasoline, pesticides, detergents, trash, animal wastes, and fertilizers, could be introduced into downstream stormwater. However, the proposed Project is not anticipated to generate discharges that would require pollution controls beyond those already designed into the Project and/or required by the City as a standard operating procedure to meet water quality management requirements from the RWQCB.

The City and County have adopted stringent best management practices designed to control discharge of non-point source pollution that could result in a significant adverse impact to surface water quality. The City has identified BMPs that when implemented, can ensure that neither significant erosion and sedimentation, nor other water quality degrading impacts will occur as a result of developing the Project.

Compliance will also be ensured through fulfilling the requirements of a SWPPP and WQMP monitored by the City and the RWQCB. The SWPPP and WQMP must incorporate the BMPs that meet the City's performance standards for both construction and occupancy stages of the Project. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that that drainage and stormwater will not create or contribute runoff that would exceed the capacity of existing or planned offsite stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts under this issue are considered less than significant and no mitigation is required.

The proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Any impacts would be less than significant.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.iv) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?			X	

Less Than Significant Impact

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) program and FIRMETTE website, the Project site and immediate surrounding area are designated as FEMA Flood Zone X (FIRM Map Panel 06065C2060H dated 8/18/2014. This zone is defined as "Areas of 0.2%-annual-chance floodplain, areas of 1%-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile or

areas protected from the base flood by levees.” This zone is considered to have a low to moderate risk of flooding.

Due to the small size of the site (0.82-acre) and scale of the planned improvements (24 apartments in two 2-story buildings), development of this site is not anticipated to redirect or impede flood flows across the Project site, particularly given that surface flows on site will be directed to the onsite drainage features which will be capable of intercepting the peak 100-year flow rate from the Project site or otherwise be detained on site and discharged in conformance with City and Riverside County requirements.

With adherence to the *Drainage Report* and the *WQMP*, the Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	

No Impact

As discussed above, the Project site is located within Zone X which represents an area not subject to flooding under 100-year project storm conditions. The Project site is located over 40 miles from the nearest coastline (Pacific Ocean) and at an elevation of approximately 1,500 feet above sea level. Therefore, the risk to the site associated with tsunamis is minimal. Similarly, the Project site not located adjacent to or downstream of an impounded body of water that could fail and result in flooding of the Project site. Therefore, the site would not be subject to impacts by dam failure or seiches (standing waves in enclosed water bodies), therefore, the risk of seiche impacting the proposed Project is minimal. Based on the above, the risk of pollutant release, due to Project inundation caused by a flood, tsunami, or seiche is minimal and less than significant impacts are anticipated.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Less Than Significant Impact

The Project *WQMP* has been prepared specifically to comply with the requirements of the City of Menifee and the County of Riverside for Ordinance No. 754.2 which includes the requirement for the preparation and implementation of a project specific WQMP to address long-term water quality impacts. The Project must also provide a SWPPP to address potential surface water impacts during construction. The Project site is located in the Santa Ana River Watershed, within the jurisdiction of the Santa Ana Regional Water Quality Control

Board, where discharges from Riverside County's Phase I MS4s are regulated through the Riverside County MS4 Permit (Order No. R8-2010-0033 NPDES No. CAS618033, as amended by Order No. R8-2013-0024) pursuant to section 402(p) of the Federal Clean Water Act.

The proposed residential Project site overlies the San Jacinto Groundwater Basin² which is considered high priority by the Sustainable Groundwater Management Act (SGMA) and Department of Water Resources (DWR). However, the basin is not considered to be in a critical overdraft condition and is currently being managed by the Hemet-San Jacinto Watermaster which was formed in 2013. A Groundwater Sustainability Plan (GSP) is required to be developed for this basin by 2022 and be implemented by 2042. The GSP will document basin conditions and basin management will be based on measurable objectives and minimum thresholds defined to prevent significant and unreasonable impacts to the sustainability indicators defined in the GSP. Water consumption and effects in nearby basins indicate that the proposed Project's water demand is considered to be less than significant. By controlling water quality during construction and operations through implementation of both short- (SWPPP) and long- (WQMP) term best management practices at the site, no potential for conflict or obstruction of the Regional Board's water quality control plan has been identified.

The Project *WQMP* has been prepared specifically to comply with the requirements of the City and the NPDES Areawide Stormwater Program requiring the preparation of a WQMP. Implementation of the provisions of the *WQMP* will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with Riverside County's Municipal Storm Water Management Program and the intent of the NPDES Permit for Riverside County and the incorporated cities of Riverside County within the Santa Ana Region.

The Project site is located in the Santa Ana Region Watershed, within the jurisdiction of the Santa Ana Regional Board, where discharges from the City of Menifee/Riverside County's Phase I MS4s are regulated through the MS4 Permit (Order No. R8-2010-0036 NPDES Permit No. CAS618036), pursuant to Section 402(p) of the Federal Clean Water Act.

With adherence to, and implementation of the conclusions and recommendations set forth in the *WQMP*, the Project site development plan will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Any impacts will be less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

² <https://gis.water.ca.gov/app/bbat/>

11. LAND USE AND PLANNING.

Source(s): *Map My County, (Appendix A); Project Plans (Appendix K); Table 1, Surrounding Land Uses, and Figure 8, Aerial Photo; Figure 3, General Plan Land Use Designations, and Figure 4, Zoning Classifications, provided in Section I. of this Initial Study; and General Plan.*

Applicable General Plan Policies:

- **Goal LU-1:** Land uses and building types that result in a community where residents at all stages of life, employers, workers, and visitors have a diversity of options of where they can live, work, shop, and recreate within Menifee.
- **Policy LU-1.1:** Concentrate growth in strategic locations to help preserve rural areas, create place and identity, provide infrastructure efficiently, and foster the use of transit options.
- **Policy LU-1.4:** Preserve, protect, and enhance established rural, estate, and residential neighborhoods by providing sensitive and well-designed transitions (building design, landscape, etc.) between these neighborhoods and adjoining areas.
- **Policy LU-1.5:** Support development and land use patterns, where appropriate, that reduce reliance on the automobile and capitalize on multimodal transportation opportunities.
- **Policy LU-1.9:** Allow for flexible development standards provided that the potential benefits and merit of projects can be balanced with potential impacts.
- **Policy LU-2.1:** Promote infill development that complements existing neighborhoods and surrounding areas. Infill development and future growth in Menifee is strongly encouraged to locate within EDC areas to preserve the rural character of rural, estate, and small estate residential uses.
- **Goal ED-3:** A mix of land uses that generates a fiscal balance to support and enhance the community's quality of life.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X

No Impact

The Project site is relatively flat and is adjacent to the existing Villagio Villas apartment complex to the east. The Project proposes to add 24 new apartments in two buildings to the existing apartment complex. The surrounding land is relatively flat, and the I-215 Freeway right-of-way is just west of the site.

The Project property was previously owned by Caltrans as part of the I-215 right-of-way, so it did not have a general plan land use designation or zoning classification. The Project is requesting a General Plan Amendment to designate the site's land use as 20.1-24 R and a zoning designation of High Density Residential (HDR). The Project site would then be consistent with land use and zoning designations of the existing apartment complex adjacent to the north and east. The new apartments would be in the southwest corner and become part of the existing complex. The Project will also tie into the circulation and

utility systems of the existing apartments. Therefore, the Project does not propose construction of any roadway, permanent flood control channel, or other structure that will physically divide any portion of the community. No impacts will occur, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Less Than Significant Impact

As stated in 11.a above, the Project property was previously owned by Caltrans as part of the I-215 right-of-way, so it did not have a general plan land use designation or zoning classification. The Project is requesting a General Plan Amendment to designate the site's land use as 20.1-24 R and a zoning designation of High Density Residential (HDR). The Project site would then be consistent with land use and zoning designations of the existing apartment complex adjacent to the north and east. The new apartments would be in the southwest corner and become part of the existing complex. The Project site would then be consistent with the City's General Plan and due to its size would not represent any environmental impacts that had not already been evaluated in the General Plan EIR. It should be noted that the existing apartment neighborhood was not built out to its maximum density allowed under the General Plan or zoning, so the addition of 24 more units will not cause it to exceed the overall density limits of the General Plan or zoning category. Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation and zoning (20.1-24 R and HDR respectively) and would not result in an inconsistency with the land use designation in the City's General Plan.

Other elements of the City's General Plan also contain goals and policies that are applicable to the proposed Project which are evaluated in the individual sections of this Initial Study where applicable. The City, through exercising its independent review, has determined that the proposed Project would be consistent with these applicable policies in the City's General Plan.

Due to its size, the Project would also not exceed the housing and population growth projections of the City that were used to prepare a number of regional plans that prevent environmental impacts, including the Air Quality Management Plan (AQMP) of the South Coast Air Quality Management District (SCAQMD), the Urban Water Management Plan (UWMP) of the Eastern Municipal Water District (EMWD), and the "Connect SoCal" regional plan of the Southern California Association of Governments (SCAG).

Therefore, the Project will not result in a land use significant environmental and use impact due to a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction adopted for the purpose of avoiding or mitigating an environmental effect. No impacts will occur.

Mitigation Measures

No mitigation measures are required.

12. MINERAL RESOURCES.

Source(s): *General Plan; GPEIR (Chapter 5.11, Mineral Resources); and Map My County (Appendix A).*

Applicable General Plan Policies:

- **Goal OSC-4:** Efficient and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future generations.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X

No Impact

The California Geological Survey Mineral Resources Project provides information about California's non-fuel mineral resources. The Mineral Resources Project classifies lands throughout the state that contain regionally significant mineral resources, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975. Non-fuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt and dimension stone, and construction aggregate, including sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. Urban preemption of prime deposits and conflicts between mining and other uses throughout California led to passage of the SMARA, which requires all cities and counties to incorporate in their general plans the mapped designations approved by the State Mining and Geology Board.

The classification process involves the determination of Production-Consumption (P-C) Region boundaries, based on identification of active aggregate operations (Production) and the market area served (Consumption). The P-C regional boundaries are modified to include only those portions of the region that are urbanized or urbanizing and are classified for their aggregate content. An aggregate appraisal further evaluates the presence or absence of significant sand, gravel, or stone deposits that are suitable sources of aggregate. The classification of these mineral resources is a joint effort of the state and the local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four Mineral Resource Zones (MRZs), Scientific Resource Zones (SZ), or Identified Resource Areas (IRAs), described below:

- **MRZ-1:** A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ-2:** A Mineral Resource Zone where adequate information indicates that significant mineral deposits are present, or a likelihood of their presence and development should be controlled.

- **MRZ-3:** A Mineral Resource Zone where the significance of mineral deposits cannot be determined from the available data.
- **MRZ-4:** A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.
- **SZ Areas:** Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.
- **IRA Areas:** County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

As part of the classification process, an analysis of site-specific conditions is utilized to calculate the total volume of aggregates within individually identified Resource Sectors. Resource Sectors are those MRZ-2 areas identified as having regional or statewide significance. Anticipated aggregate demand in the P-C Regions for the next 50 years is then estimated and compared to the total volume of aggregate reserves identified within the P-C Region.

The City of Menifee is in the San Bernardino P-C Region, in which aggregate mineral resource zones were last mapped by the California Geological Survey in 2008. The following MRZs are mapped in the City of Menifee (reference Figure 5.11-1, Mineral Resource Zones of the *GPEIR*).

- MRZ-1: 308 acres in northwest part of City near the northwest corner of Sun City.
- MRZ-3: 22,017 acres, almost three-quarters of the City. Most of the eastern, southern, and northwestern parts of the City are designated MRZ-3.
- Urban Area: 7,488 acres consisting of most of the central and north-central and parts of the western portion of the City. Urban areas are not defined as mineral resource zones because mining in these areas is already precluded by urban development.

As stated in the *GPEIR*, no known significant mineral resources have been designated in the City of Menifee. The Project site is located in Mineral Resource Zone 3.

The Project site is located on the east side of Interstate 215, and southwest of Encanto Drive in the City of Menifee, County of Riverside, State of California. The Project site is an expansion of an existing apartment complex located to the north and east of the site.

There are no mineral extraction or process facilities on or near the site. No mineral resources are known to exist within the vicinity. No impacts will occur.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

No Impact

Please reference the discussion in Threshold 12.a. There are no mineral extraction or process facilities on or near the site. No mineral resources are known to exist within the vicinity. No impacts will occur.

Mitigation Measures

No mitigation measures are required.

13. NOISE.

Source(s): *Villagio Apartments, Noise Impact Study, City of Menifee*, prepared by RK Engineering Group, Inc., 10-25-2022 (*Noise Study, Appendix G*); *General Plan*; City of Menifee Municipal Code; and *Map My County, (Appendix A)*.

Applicable General Plan Policies:

- **Goal N-1:** Noise-sensitive land uses are protected from excessive noise and vibration exposure.
- **Policy N-1.1:** Assess the compatibility of proposed land uses with the noise environment when preparing, revising, or reviewing development project applications.
- **Policy N-1.2:** Require new projects to comply with the noise standards of local, regional, and state building code regulations, including but not limited to the City's Municipal Code, Title 24 of the California Code of Regulations, the California Green Building Code, and subdivision and development codes.
- **Policy N-1.3:** Require noise abatement measures to enforce compliance with any applicable regulatory mechanisms, including building codes and subdivision and zoning regulations, and ensure that the recommended mitigation measures are implemented.
- **Policy N-1.7:** Mitigate exterior and interior noises to the levels listed in the table below to the extent feasible, for stationary sources adjacent to sensitive receptors:

Stationary Noise Standards		
Land Use	Interior Standards	Exterior Standards
Residential		
10:00 p.m. to 7:00 a.m.	40 Leq (10 minute)	45 Leq (10 minute)
7:00 a.m. to 10:00 p.m.	55 Leq (10 minute)	65 Leq (10 minute)

- **Policy N-1.8:** Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state, and City noise standards and guidelines as a part of new development review.
- **Policy N-1.9:** Limit the development of new noise-producing uses adjacent to noise-sensitive receptors and require that new noise-producing land be are designed with adequate noise abatement measures.
- **Policy N-1.11:** Discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation.
- **Policy N-1.13:** Require new development to minimize vibration impacts to adjacent uses during demolition and construction.
- **Goal N-2:** Minimal Noise Spillover. Minimal noise spillover from noise-generating uses, such as agriculture, commercial, and industrial uses into adjoining noise-sensitive uses.

City of Menifee Municipal Code Section 9.09.050:

The Project site is within the City of Menifee and bounded by future residential properties to the east, north, and south. The City of Menifee Municipal Code Section 9.09.050 (Noise Control Regulations) establishes the permissible noise level that may intrude into a neighbor's property. The Municipal Code establishes the exterior noise level criteria for residential properties affected by stationary noise sources. For residential properties, the exterior noise level shall not exceed 65 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 45 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.). In addition, the City's General Plan references the state *Land Use Compatibility for Community Noise Environments* that indicates noise levels at residential uses are *normally acceptable* up to 60 dBA CNEL and *conditionally acceptable* up to 70 dBA CNEL.

Fundamentals of Sound and Environmental Noise:

Sound consists of energy waves that people receive and interpret while noise can be defined as unwanted sound. Sound pressure levels are described in logarithmic units of ratios of sound pressures to a reference pressure, squared. These units are called bels. In order to provide a finer description of sound, a bel is subdivided into ten decibels, abbreviated dB. To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA. In fact, they would combine to produce 73 dBA. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3 dBA. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3 dBA change in sound is the beginning at which humans generally notice a barely perceptible change in sound and a 5 dBA change is generally readily perceptible.

Noise consists of pitch, loudness, and duration; therefore, a variety of methods for measuring noise have been developed. According to the California General Plan Guidelines for Noise Elements, the following are common metrics for measuring noise:

- **L_{eq} (Equivalent Energy Noise Level):** The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over given sample periods. LEQ is typically computed over 1-, 8-, and 24-hour sample periods.
- **CNEL (Community Noise Equivalent Level):** The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of ten decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.
- **L_{DN} (Day-Night Average Level):** The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of ten decibels to sound levels in the night after 10:00pm and before 7:00 a.m.

CNEL and L_{DN} are utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night. L_{eq} is better utilized for describing specific and consistent sources because of the shorter reference period.

Existing Noise Conditions

The State of California defines “sensitive receptors” as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, single and multiple-family residential, including transient lodging, motels and hotel uses make up the majority of these areas.

The Project site is bounded by the I-215 Freeway on the west which is the primary noise generator in the Project area. The site is bounded on the north and east by the existing Villagio Villas Apartment complex, to the southwest by I-215, adjacent parcels to the north and east support residential development, and parcels to the south and east are partially developed, with undeveloped vacant land beyond. The *Noise Study* found the dominant source of noise in the Project area was from traffic on the I-215 Freeway and was typical of

urban areas. Table 12 in the *Nosie Study* indicates Leq noise levels on the Project site ranged from 64.7 to 72.7 dBA while Lmax levels ranged from 67.0 to 71.2 dBA. The 24-hour CNEL for the site was 75.9 dBA which characterizes a relatively urban setting in terms of noise.

Analysis of Project Effect and Determination of Significance:

Note: Any tables or figures in this section are from the *Noise Study*, unless otherwise noted.

Would the Project result in?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		

Less Than Significant with Mitigation Incorporated

Construction Noise

A detailed *Noise Study* was prepared for the Project. The degree of construction noise may vary based on location and type of equipment involved. Noise levels associated with the construction will vary with the different phases of construction. Site grading and preparation is expected to produce the highest sustained construction noise levels. The US Environmental Protection Agency (EPA) has compiled data regarding the noise generated characteristics of typical construction activities. The data is presented in **Table 13-1, Typical Construction Noise Levels**. Existing apartment units located north and east of the Project site may be affected by short-term noise impacts associated with the transport of workers, the movement of construction materials to and from the site, ground clearing, excavation, grading, and building activities.

Table 13-1
Typical Construction Noise Levels¹

Equipment Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Other Equipment	
Saws	71 - 82
Vibrators	68 - 82

¹ Referenced Noise Levels from Environmental Protection Agency (EPA) for equipment with internal combustion engines.

**Table 13-2
Estimated Project Construction Noise Levels**

Phase	Equipment	Quantity	Equipment Noise Level at 50 feet (dBA Leq)	Combined Noise Level (dBA Leq)
Site Preparation	Graders	1	81.0	83.6
	Tractors/Loaders/Backhoes	1	80.0	
Grading	Graders	1	81.0	84.6
	Rubber Tired Dozers	1	77.7	
	Tractors/Loaders/Backhoes	1	80.0	
Building Construction	Cranes	1	72.6	83.9
	Forklifts	2	71.0	
	Tractors/Loaders/Backhoes	2	80.0	
Paving	Cement and Mortar Mixers	4	74.8	84.3
	Pavers	1	74.2	
	Rollers	1	73.0	
	Tractors/Loaders/Backhoes	1	80.0	
Architectural Coating	Air Compressors	1	73.7	73.7
Worst Case Construction Phase Noise Level - Leq (dBA)				86.4

As shown in **Table 13-2, Estimated Project Construction Noise Levels**, the highest estimated noise level at the property line is 86.4 dBA, so some construction noise will exceed the FTA 8-hour criteria of 85 dBA Leq. It should be noted that Section 9.0215.060(C) of the City's Municipal Code allows a property developer to apply for a construction exemption to the City's Stationary Noise Standards. If approved, Project generated noise that complies with the following would be exempt from the Municipal Code noise level standards:

Site preparation for Monday through Saturday, except nationally recognized holidays, 6:30 AM to 7:00 PM. There shall be no construction permitted on Sunday or nationally recognized holidays unless approval is obtained from the City Building Official or City Engineer.

However, even with an exemption, Project construction will still generate substantial noise levels on adjacent residents. To help reduce construction noise impacts on existing neighbors to the extent practical, the six (6) "design features" for construction that were identified in the *Noise Study* are recommended as mandatory **Mitigation Measures MM-NOI-1** through **MM-NOI-6** in this CEQA document to assure their implementation.

With regulatory compliance and implementation of the recommended mitigation, Project-related construction noise impacts would be less than significant.

Operational Noise

Project operational noise will result from stationary onsite sources, onsite and offsite traffic, airport activities, and land uses surrounding the Project.

Stationary Sources

The Project will add two new apartment buildings to the existing Villagio Villas apartment complex, located north and east of the project site. Residential projects are not typically considered a significant source of stationary noise, and operation or occupancy of the Project is not expected to cause significant amounts of noise that would disturb public welfare or degrade the quality of life for nearby residents. Examples of stationary noise would include common area activities, HVAC equipment, and parking lot activities.

All noise generated by future residents and guests of the Project will be subject to the City of Menifee Municipal Code residential noise standards (Chapter 11.22, et al.). The City of Menifee exempts noise generated by heating and air conditioning equipment in proper repair from the provisions and noise generated by standard operation of factory equipped motor vehicles.

Given the size and type of project and its existing setting (adjacent to a freeway), the occupancy or operation of the proposed Project would not be expected to cause a substantial permanent increase in ambient noise levels in the vicinity of the site that would be in excess of standards established in the City General Plan or noise ordinance. Therefore, operational noise from stationary sources in the Project would be less than significant and no mitigation is required.

Mobile Sources

The *Noise Study* indicates the Project is not expected to cause a substantial increase in ambient noise levels in the vicinity of the site from increased traffic volume along adjacent roadways. Typically, it takes a doubling of traffic volume along a roadway to cause a significant increase in ambient noise levels of more than 3 dBA. The Project is expected to generate approximately 162 average daily trips (ADT). Encanto Drive, adjacent to the project site, has an estimated ADT of 7,800 (reference Table 10 in the *Noise Study*). **Table 13-3, Roadway Noise Impact Analysis (dBA CNEL)** shows the Project's impact on roadway noise levels in the vicinity of the site. Therefore, the amount of traffic generated by the Project will not double the amount of traffic along Encanto Drive, either directly or cumulatively, so the increase in roadway noise levels as a result of the Project is less than significant and no mitigation is required.

**Table 13-3
Roadway Noise Impact Analysis (dBA CNEL)**

Roadway	Segment	Existing CNEL (dBA)	Existing Plus Project CNEL (dBA)	Change in Noise Level as a Result of Project (dBA)	Significant Impact? ¹
Encanto Drive	South of McCall Boulevard	60.9	61.0	0.1	No

¹ Per the City of Menifee General Plan EIR, a significant impact would occur if project-related traffic would increase the CNEL at any noise-sensitive receptor by an audible amount of 5 dBA. In community noise, an immediate 5 dB change in noise levels is considered readily perceptible.

Land Use Compatibility

The Project will site new residential homes within approximately 170 feet of the edge of the nearest travel lane of I-215. Traffic noise from I-215 will be the primary source of noise impacting the project site and may expose future residents to noise levels above the State of California and City of Menifee recommended limits for residential uses. The *Noise Study* included a noise/land use compatibility assessment to help determine future exterior and interior traffic noise levels at the project site. Future traffic noise levels are modeled using a version of the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). **Table 13-4, Residential Noise/Land Use Compatibility (dBA CNEL)** shows the results of the traffic noise/land use compatibility assessment. Based on the projected noise levels, the project's proposed land use falls within the Normally Unacceptable to *Clearly Unacceptable* range, per the City of Menifee General Plan Environmental Impact Report (EIR), Table 5.12-3. The EIR states that new construction or development generally should not be undertaken under these circumstances.

**Table 13-4
Residential Noise/Land Use Compatibility (dBA CNEL)**

Roadway ¹	Segment	Receptor Location ²	Exterior Noise Levels (dBA CNEL) ³	Land Use Compatibility
I-215 Freeway	McCall Boulevard to Newport Road	1st Floor Façade	73.5	Normally Unacceptable
		2nd Floor Façade	79.1	Clearly Unacceptable

NOTES:

¹ See Tables 8 and 9 in the Noise Study for roadway parameters.

² Receptor locations are placed at the exterior of the nearest building façade facing the subject roadway, 5 feet above floor level.

³ Noise levels include the attenuation effects of the proposed 6-foot-high property line wall along the Caltrans frontage.

The *Noise Study* also included a preliminary interior noise analysis for the Project's worst-case onsite receptor locations (i.e., first rows of residential dwelling units) using a typical "windows open" and "windows closed" condition. A "windows open" condition assumes a minimum of 12 dBA of noise attenuation from the exterior noise level. A "windows closed" condition assumes a minimum of 20 dBA of noise attenuation from the exterior noise level.

Table 13-5, *Preliminary Interior Noise Analysis* indicates the interior noise levels for the residential uses on the Project site.

**Table 13-5
Preliminary Interior Noise Analysis**

Receptor Location	Exterior Noise Level at Building Façade (CNEL)	Interior Noise Standard ¹ (CNEL)	Required Building Shell Noise Reduction (CNEL)	Interior Noise Level with Standard California Construction Windows (STC ~25)		STC Rating for Windows Facing Subject Roadway
				"Windows Open" ²	"Windows Closed" ³	
1st Floor Façade	73.5	45	28.5	61.5	53.5	32
2nd Floor Façade	79.1		34.1	67.1	59.1	38

¹. State of California 2019 Residential Building Standards, Section 1206.4. Allowable Interior Noise Levels.

The *Noise Study* indicated the Project should require a "windows closed" condition, upgraded building construction, and upgraded STC-rated windows to meet the California Building Standards Code requirements for residential interior noise. To accommodate windows closed conditions, all units shall be equipped with adequate fresh air ventilation. Exterior walls, designed per the latest California Building Standards are typically rated between STC 35-40. In order to ensure adequate noise attenuation is provided from the building shell, exterior walls should be designed to meet the required sound attenuation targets. Attic vents and other openings should be baffled and oriented away from facing the freeway. Prior to issuance of building permits, the project proponent should demonstrate to the City Building Department that the proposed building shell and window assemblies will achieve exterior to interior noise reduction necessary to meet the State of California and City of Menifee requirements. Furthermore, the project shall comply with California Title 24 insulation building requirements for multi-family dwelling units for common separating assemblies (e.g., floor/ceiling assemblies and demising walls). These design features are incorporated into **Mitigation Measures MM-NOI-7** through **MM-NOI-12** to assure the new units are constructed and operate in ways that protect future residents from noise levels in excess of established standards.

In summary, the preceding analyses have demonstrated the Project will not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or other applicable standards. With implementation of **Mitigation Measures MM-NOI-1** through **MM-NOI-12**, noise impacts related to Project construction and operation will be reduced to less than significant levels.

Would the Project result in?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?		X		

Less Than Significant with Mitigation Incorporated

A detailed *Noise Study* was prepared for the Project that included vibration impacts. The

most vibratory pieces of equipment expected to be utilized on the Project site include a vibratory roller and a large bulldozer. The use of a vibratory roller and/or a large bulldozer may be used as close as 25 feet to the nearest existing structure to the north and. Groundborne vibration levels associated with the use of a vibratory roller could reach up to 0.21 peak particle velocity (PPV) at the existing structures north of the Project site (25 feet) and up to 0.127 PPV at the nearest existing structure located south of the Project site.

Groundborne vibration levels associated with the use of a large bulldozer could reach up to 0.089 PPV at the closest structures to the Project site (25 feet) and up to 0.21 PPV at the nearest existing structure (25 feet) to the Project site from a vibratory roller.

The threshold at which there is a risk to “architectural” damage to historic and some older buildings is a PPV of 0.25 in/sec, at older residential structures a PPV of 0.3 in/sec, and at new residential structures and modern commercial/industrial buildings a PPV of 0.5 in/sec. A vibratory roller generates a PPV of approximately 0.21 at a distance of 25 feet, which is the more conservative criteria for possible structural damage, as shown in **Table 13-6, Project Construction Vibration Levels**.

Table 13-6
Project Construction Vibration Levels

Construction Activity	Distance to Nearest Structure (feet)	Duration	Calculated Vibration Level - PPV (in/sec)	Damage Potential Level	Annoyance Criteria Level
Large Bulldozer	25	Continuous/Frequent	0.089	Extremely fragile historic buildings, ruins, ancient monuments	Distinctly Perceptible
Vibratory Roller	25	Continuous/Frequent	0.210	Historic and old buildings	Strongly Perceptible
Loaded Trucks	25	Continuous/Frequent	0.076	No Impact	Distinctly Perceptible

Vibration is considered to be distinctly perceptible at a PPV of 0.04 in/second and strongly perceptible at 0.10 PV). Use of a vibratory roller may result in annoyance to persons inside or in the vicinity of existing structures north or east of the Project site. However, construction activities will be limited to daytime hours and the use of vibratory rollers would be limited to several hours per day at most. The *Noise Study* concluded that implementation of **Mitigation Measures MM-NOI-1** through **MM-NOI-6** would also reduce potential vibration impacts to less than significant levels.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?				X

No Impact

The closest airports to the Project site are the March Air Reserve Base/Inland Port 10.6 miles to the northwest and the French Valley Airport 9.8 miles to the southeast. Per the *Noise Study*, the Project site is located within the March Air Reserve Base / Inland Port Airport Land Use Influence Boundary Area and Compatibility Zone “E”. As described in the March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan, Compatibility Zone E is beyond the 55-CNEL contour. The City of Menifee General Plan EIR classifies noise environments of 55 CNEL as “Normally Acceptable” for all residential uses based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Therefore, the Project would not expose people residing or working in the project area to excessive noise levels associated with an airport. Impacts will be less than significant, and no mitigation is required.

Mitigation Measures

Construction

- MM-NOI-1 Construction Hours.** All construction and construction-related activity shall take place between the hours of 6:30 a.m. to 7:00 p.m. Monday through Saturday. Construction shall not take place on Sundays or nationally recognized holidays unless prior approval is obtained from the City Building Official or City Engineer.
- MM-NOI-2 Public Notice.** The developer shall provide public notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.
- MM-NOI-3 Equipment Mufflers.** All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices (e.g., engine shields).
- MM-NOI-4 Electrical Service.** The developer shall establish an electric connection to the site to avoid the use of diesel- and gas-powered generators.
- MM-NOI-5 Staging Limits.** The developer shall locate staging area, generators, and stationary construction equipment as far from adjacent residential units as

feasible.

- MM-NOI-6 Construction Idling Limits.** Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

Operation

- MM-NOI-7 Noise Insulation.** All construction shall comply with California Title 24 building insulation requirements for exterior walls, roofs, and common separating assemblies (e.g., floor/ceiling assemblies and demising walls), which shall be reviewed by the City prior to issuance of a building permit.

- Interior noise levels due to exterior sources must not exceed a community noise equivalent level (CNEL) or a day-night level (LDN) of 45 dBA, in any habitable room.
- Party wall and floor-ceiling assembly designs must provide a minimum STC of 50, based on lab tests. Field-tested assemblies must provide a minimum noise isolation class (NIC) of 45.
- Floor-ceiling assembly designs must provide for a minimum impact insulation class (IIC) of 50, based on lab tests. Field-tested assemblies must provide a minimum FIIC of 45.
- Penetrations or openings in sound-rated assemblies must be treated to maintain required ratings.

- MM-NOI-8 Unit Ventilation.** A “windows closed” condition is expected to be required for all residential units within the project site to meet the interior noise standard. To accommodate windows closed conditions, all units shall be equipped with adequate fresh air ventilation, per the requirements of the California Building Standards.

- MM-NOI-9 Final Noise Study.** Prior to issuing building permits, a final interior noise study shall be prepared to determine the necessary STC rating for windows, sliding glass doors, and building shell assemblies and design requirements to ensure that the interior noise standard of 45 dBA CNEL is met for all units.

- MM-NOI-10 Delivery Limits.** The developer shall ensure that all deliveries, loading and unloading activities, and trash pick-up shall be limited to daytime hours only (8:00 a.m. – 10:00 p.m.).

- MM-NOI-11 Vehicle Idling.** Engine idling time for all delivery vehicles and moving trucks shall be limited to 5 minutes or less.

- MM-NOI-12 Boundary Wall.** The developer shall install a CMU block wall along the boundary of the site fronting I-215. The noise barrier wall must be a minimum of 6 feet tall to help shield ground floor areas on the project site from roadway noise along I-215.

14. POPULATION AND HOUSING.

Source(s): *General Plan*; *GPEIR* (Chapter 5.13, *Population and Housing*); Google Maps; *Map My County (Appendix A)*; Department of Finance Population Estimates; Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); **Figure 8, Aerial Photo** in Section I. of this Initial Study; and *U.S. Census Bureau (USCB) QuickFacts, Menifee City, CA, 2022 US Census data.*

Applicable General Plan Policies:

N/A

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	

Less Than Significant Impact

The Project is proposing to construct 24 new apartment units as part of a larger earlier apartment development adjacent to the site. The U.S. Census Bureau indicates the City has an average unit occupancy of 3.16 persons per household. Therefore, the Project would generate 76 City residents at buildout.

According to the Department of Finance Population Estimates, the City of Menifee had a population of 97,093 as of January 1, 2020. The Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Adopted Growth Forecast projects an estimated population of 132,101 persons by the year 2040. The projected new residents from the Project represents 0.3 % of this anticipated growth³. According to the SCAG RTP/SCS, Menifee had an employment base of 13,840 workers in 2016 and is projected to increase to 21,160 persons by the year 2040. The Project is consistent with the General Plan Land Use designation and zoning classification for the site. Any direct increases in population as a result of the Project are insignificant as they are within the growth assumptions estimated by the City in its General Plan and by SCAG for the City of Menifee. No new expanded infrastructure is proposed that could accommodate additional growth in the area that is not already possible with existing infrastructure. Impacts will be less than significant.

³ 132,101 – 97,093 = 35,008 persons added from 2020 to 2040 and 104 new residents is 0.3 percent of that growth.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

No Impact

The Project site is currently vacant and there is no existing housing (or residents) present. The Project will add 24 new apartment units to the City's housing stock but will not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impacts will occur.

Mitigation Measures

No mitigation measures are required.

15. PUBLIC SERVICES.

Source(s): GPEIR (Chapter 5.14, *Public Services*); *General Plan*; *Map My County (Appendix A)*; Google Earth; Menifee Ordinance No. 17-232 (Development Impact Fees); Menifee Municipal Code Chapter 8.20 (Fire Code); Menifee Union School District website; and Perris Union High School District website.

Applicable General Plan Policies:

- **Goal S-4:** A community that has effective fire mitigation and response measures in place, and as a result is minimally impacted by wildland and structure fires.
- **Policy S-4.1:** Require fire-resistant building construction materials, the use of vegetation control methods, and other construction and fire prevention features to reduce the hazard of wildland fire.
- **Policy S-4.2:** Ensure, to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure, and response times, are adequate for all sections of the City.
- **Policy S-4.4:** Review development proposals for impacts to fire facilities and compatibility with fire areas or mitigate.
- **Goal OSC-1:** A comprehensive system of high quality parks and recreation programs that meets the diverse needs of the community.
- **Policy OSC-1.7:** Ensure that parks and recreational facilities are well-maintained by the responsible agency.

Analysis of Project Effect and Determination of Significance:

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?			X	

Less Than Significant Impact

The City of Menifee contracts for fire services with the Riverside County Fire Department (RCFD)/CAL FIRE, providing a full range of fire protection services including fires, rescues, traffic accidents, medical emergencies, and requests for general public assistance.

The RCFD Sun City Station #7 is the closest station to the Project site. Station 7 is located at 28349 Bradley Road in Sun City approximately 1.4 driving miles (via McCall Boulevard) west of the Project site, on the other side of Interstate 215. At an average response speed of 35 miles per hour, the response time from Station 7 to the Project site would be approximately 7 minutes.

The proposed Project is anticipated to require incremental additional fire protection. The Project is proposing a General Plan Amendment and Zone Change to make its

designations the same as the adjacent apartment complex to the north and east. Given the relatively small size of the Project, impacts to fire services are considered to be less than significant.

Prior to the issuance of building permits all construction documents will be reviewed and approved by the City of Menifee's Fire Department as contracted through CalFire for consistency with the California Fire Code. The development will be required to provide fully operational fire suppression equipment, including hydrants, prior to the arrival of any building material being delivered to the Project site. The proposed structures will have fire sprinklers throughout the buildings as well as a dedicated fire protection water line.

The Project site is subject to Resolution No. 22-1264, Development Impact Fees (DIF). DIF shall be paid at the time a certificate of occupancy is issued for the Development Project or upon final inspection, whichever occurs first. However, the fees may be paid at the time application is made for a building permit. DIF is used to pay for Fire protection services. Payment of the DIF is a standard condition and is not considered unique mitigation under CEQA. Additional commercial development into this area will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection. Any impacts are considered less than significant, and no mitigation is required.

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Police protection?			X	

Less Than Significant Impact

On July 1, 2020, the Menifee Police Department (MPD) officially entered service with over 60 officers and 17 professional staff. Accordingly, the MPD is headquartered at 29714 Haun Road. The City of Menifee is divided into 4 "beats" for purposes of patrols, and this Project is in Beat 1. At an average response speed of 35 miles per hour, the response time from the headquarters station to the Project site would be just under 7 minutes and the City Police Department has a goal of emergency calls averaging 5 minutes or less. The proposed Project will require incremental additional police services for the new 76 residents from the 24 new apartment units. In terms of overall police service needs, the existing apartment neighborhood was not built out to its maximum density allowed under the General Plan or zoning, and the addition of 24 more units will still not cause it to exceed the overall density limits of the General Plan land use designation (20.1-24 R) or the zoning category (High Density Residential). Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation and zoning and would not result in an inconsistency with the land use designation in the City's General Plan. Due to its size, the Project itself

is not expected to adversely affect police services as it is generally consistent with the growth projections represented by the General Plan.

The City development review process and building permit plan check process include review by the MPD to ensure incorporation of defensible space concepts in site design and construction. All developments are required to incorporate defensible space concepts, and that the design of each site be reviewed with the MPD prior to approval of conditional use permits or other entitlements.

The Project site is subject to Resolution No. 22-1264, DIF. DIF shall be paid at the time a certificate of occupancy is issued for the development Project or upon final inspection, whichever occurs first. However, the fees may be paid at the time application is made for a building permit. DIF is used to pay for police protection services.

Per Menifee Municipal Code Chapter 8.02 (DIF), new development is required to pay impact fees that can go toward purchasing land and construction of new police service facilities. Payment of the DIF is a standard condition and is not considered unique mitigation under CEQA. Additional residential development into this area will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection. Any impacts are considered less than significant, and no mitigation is required.

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Schools?			X	

Less Than Significant Impact

The proposed Project is located within the Menifee Union School District (MUSD) and Perris Union High School District (PUHSD). The Project is proposing to construct 24 new apartment units as part of a larger earlier apartment development adjacent to the site. The U.S. Census Bureau indicates the City has an average unit occupancy of 3.16 persons per household (USCB 2022). Therefore, the Project would generate 76 City residents at buildout.

The proposed Project is subject to development impact fees for school facilities pursuant to Senate Bill 50. The fee will be based on the number of units times the legally established fee per unit of each of the serving school districts. Payment of these fees is a City standard condition of approval and are not considered unique mitigation under CEQA. However, in this case the Project is proposing a General Plan Amendment and Zone Change to match the designations of the existing adjacent apartment complex. Even though the Project site is less than one acre, approving a GPA and ZC may require the developer to enter into a Project-specific School Impact Mitigation Agreement (SIMA)

to offset any unanticipated student housing impacts to the Districts as a result of the Project. With the payment of either standard school impact fees or a SIMA, potential impacts to schools from new Project residents would be less than significant.

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Parks?			X	

Less Than Significant Impact

Demand for park and recreational facilities are generally the direct result of residential development because it generates new residents or population. Goal OCS-1.2 of the City of Menifee General Plan states that it is the City's requirement to achieve 5 acres of parkland for every 1,000 city residents. According to the U.S. Census, the household size in the City of Menifee is 3.16 persons per household which translates to approximately 76 persons⁴ for this Project. Some of the residents of the Project may already live within the City and are simply relocating within the City. However, as a worst-case condition, it is assumed all Project residents will be new residents to the City. These additional residents will use existing local and regional recreational facilities and programs. However, this increased use is considered incremental due to the small number of units and residents, and their impact on existing parks are considered to be less than significant. It should be noted that the Project is also an expansion of an existing apartment complex with its own recreational facilities that these additional residents may use.

The Project proposes residential uses that are consistent with the proposed General Plan land use designation and zoning classification for the site (20.1-24 R and High Density Residential, respectively). It should be noted that there is currently no General Plan land use or zoning designation on the site since this was formerly right-of-way belonging to Caltrans as part of I-215 maintenance area. Therefore, the Project will introduce a total of 24 new residential units to the site that were not anticipated under the General Plan Environmental Impact Report. However, the existing apartment neighborhood was not built out to its maximum density allowed under the General Plan or zoning, and the addition of 24 more units will still not cause it to exceed the overall density limits of the General Plan land use designation (20.1-24 R) or the zoning category (High Density Residential). Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation and zoning and would not result in an inconsistency with the land use designation in the City's General Plan.

The addition of 76 new residents would generate a conceptual requirement for 0.38 acres of parkland⁵ or the need to pay the equivalent value to the City in developer park impact fees. The Project does not propose onsite recreational facilities but will pay

⁴ 24 units times 3.16 persons/household = 76 persons

⁵ 76 residents divided by 1000 persons times 5 acres/1000 residents required by General Plan Goal OCS-1.2

appropriate Quimby fees in lieu of the construction of new recreation facilities. Quimby fees are used by the City for the acquisition of new parkland. The construction of new parks in the future would require separate CEQA compliance processes and documentation. In addition, the payment of Quimby fees to the City is considered regulatory compliance and not unique mitigation under CEQA. It should be noted that this Project is part of a larger apartment complex that already has recreational facilities in place.

The proposed Project does not include parkland, but the existing apartment complex (which the proposed Project will be a part of) does have its own facilities, and the Project's payment of Quimby fees will facilitate the development of new parkland and facilities in the future at the discretion of the City.

With payment of Quimby fees, the Project will not increase the use of existing neighborhood and regional parks or other recreational facilities to the degree that substantial physical deterioration of the facility would occur or be accelerated. Impacts will be less than significant.

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Other public facilities?			X	

Less Than Significant Impact

The expansion of public services such as libraries or hospitals will not be required to serve the proposed Project. The proposed development will result in an incremental yet not a significant increase the demand of such services.

As the City's population grows, new library and medical facilities will be required to provide educational and medical services for an expanded population.

The site currently has no General Plan land use or zoning designations because it was formerly I-215 right-of-way belonging to Caltrans. The Project will introduce a total of 24 new residential units to the site that were not anticipated under the General Plan Environmental Impact Report. However, it should be noted that the existing apartment neighborhood was not built out to its maximum density allowed under the General Plan or zoning, and the addition of 24 more units will still not cause it to exceed the overall density limits of the General Plan land use designation (20.1-24 R) or the zoning category (High Density Residential). Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation and zoning and would not result in an inconsistency with the land use designation in the City's General Plan.

As the City's population grows, new library and medical facilities will be required to provide services for an expanded population. Due to its size and unique history (i.e., no previous land use or zoning designations), the proposed Project would not result impacts

to library or medical facilities to a significantly greater degree than were anticipated in the General Plan EIR.

Therefore, a less than significant impact will occur to libraries and health services will result from the Project and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

16. RECREATION.

Source(s): *General Plan; GPEIR (Chapter 5.16, Recreation); Municipal Code Sections 9.55 and 9.56; and Development Impact Fees per Ordinance No. 17-232.*

Applicable General Plan Policies:

N/A.

Analysis of Project Effect and Determination of Significance:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	

Less Than Significant Impact

Demand for park and recreational facilities are generally the direct result of residential development because it generates new residents or population. Goal OCS-1.2 of the City of Menifee General Plan states that it is the City's requirement to achieve 5 acres of parkland for every 1,000 city residents. According to the U.S. Census, the household size in the City of Menifee is 3.16 persons per household which translates to approximately 76 persons⁶ for this Project. Some of the residents of the Project may already live within the City and are simply relocating within the City. However, as a worst-case condition, it is assumed all Project residents will be new residents to the City. These additional residents will use existing local and regional recreational facilities and programs. However, this increased use is considered incremental due to the small number of residents, and their impacts on existing parks are considered to be less than significant.

The Project proposes residential uses that are consistent with the proposed General Plan land use designation and zoning classification for the site. It should be noted that there is no General Plan land use designation or zoning classification on the site since this was formerly right-of-way belonging to Caltrans as part of I-215 maintenance area. Therefore, the Project will introduce a total of 24 new residential units to the site that were not anticipated under the General Plan Environmental Impact Report. However, this increased use is considered incremental due to the small number of residents (76), and their impact on existing parks is considered to be less than significant.

The addition of 76 new residents would generate a conceptual requirement for 0.38 acres of parkland⁷ or the need to pay the equivalent value to the City in developer park impact fees. The Project does not propose new onsite recreational facilities but will pay appropriate Quimby fees in lieu of the construction of new recreation facilities. Quimby fees are used by the City for the acquisition of new parkland. The construction of new parks in the future would require separate CEQA compliance processes and

⁶ 24 units times 3.16 persons/household = 76 persons

⁷ 76 residents divided by 1000 persons times 5 acres/1000 residents required by General Plan Goal OCS-1.2

documentation. In addition, the payment of Quimby fees to the City is considered regulatory compliance and not unique mitigation under CEQA. It should be noted that this Project is part of a larger apartment complex that already has recreational facilities in place which these new residents will have access to.

The proposed Project does not include additional recreational facilities but the payment of Quimby fees will facilitate the development of new parkland and facilities in the future at the discretion of the City.

With payment of Quimby fees, the Project will not increase the use of existing neighborhood and regional parks or other recreational facilities to the degree that substantial physical deterioration of the facility would occur or be accelerated. Impacts will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Less Than Significant Impact

As discussed in Threshold 12.a above, demand for park and recreational facilities are generally the direct result of residential development because it generates new residents or population. Based on data from the U.S. Census, the Project would generate approximately 76 persons for this Project which would generate a conceptual requirement for 0.38 acres of parkland. Since the Project is not providing additional onsite recreational land or facilities, it will need to pay an appropriate park impact fee to the City. With payment of Quimby fees, impacts of the Project related to the need for construction or expansion of recreational facilities will be less than significant.

Mitigation Measures

No mitigation measures are required.

17. TRANSPORTATION.

Source(s): *Open Space and Conservation Element, Meniffee General Plan, Exhibit OSC-B2, Proposed Recreational Trails and Class I, II, and III Bike Routes; GPEIR (Chapter 7.17 – Transportation and Traffic); General Plan; Development Impact Fees per Ordinance No. 17-232; Ordinance No. 2009-62 “Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance of 2009”; Villagio Apartment Homes Project Trip Generation and Vehicle Miles Traveled Screening Study, City of Meniffee, prepared by RK Engineering Group, Inc. 10-4-2022 (VMT Memo, **Appendix H**); City of Meniffee Citywide Trails Map; **Table 1, Surrounding Land Uses** in Section I. of this Initial Study; **Figure 3, General Plan Land Use Designations**, **Figure 4, Zoning Classifications**, and **Figure 8, Aerial Photo**, in Section I. of this Initial Study; and Riverside Transit Agency website.*

Applicable General Plan Policies:

- **Goal C-1:** A roadway network that meets the circulation needs of all residents, employees, and visitors to the City of Meniffee.
- **Policy C-1.1:** Require roadways to:
 - Comply with federal, state and local design and safety standards.
 - Meet the needs of multiple transportation modes and users.
 - Be compatible with the streetscape and surrounding land uses.
 - Be maintained in accordance with best practices.
- **Policy C-1.2:** Require development to mitigate its traffic impacts and achieve a peak hour Level of Service (LOS) D or better at intersections, except at constrained intersections at close proximity to the I-215 where LOS E may be permitted.
- **Policy C-1.5:** Minimize idling times and vehicle miles traveled to conserve resources, protect air quality, and limit greenhouse gas emissions.
- **Goal C-2:** A bikeway and community pedestrian network that facilitates and encourages nonmotorized travel throughout the City of Meniffee.
- **Policy C-2.1:** Require on- and off-street pathways to:
 - Comply with federal, state and local design and safety standards.
 - Meet the needs of multiple types of users (families, commuters, recreational beginners, exercise experts) and meet ADA standards and guidelines.
 - Be compatible with the streetscape and surrounding land uses.
 - Be maintained in accordance with best practices.
- **Policy C-2.2:** Provide off-street multipurpose trails and on-street bike lanes as our primary paths of citywide travel, and explore the shared use of low speed roadways for connectivity wherever it is safe to do so.
- **Policy C-2.3:** Require walkways that promote safe and convenient travel between residential areas, businesses, schools, parks, recreation areas, transit facilities, and other key destination points.
- **Policy C-2.4:** Explore opportunities to expand the pedestrian and bicycle networks; this includes consideration of utility easements, drainage corridors, road rights-of-way and other potential options.
- **Goal C-3:** A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit dependent.
- **Policy C-3.2:** Require new development to provide transit facilities, such as bus shelters, transit bays, and turnouts, as necessary.
- **Goal C-5:** An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts.

- **Policy C-5.3:** Support efforts to reduce/eliminate the negative environmental impacts of goods movement.

Note: Any tables or figures in this section are from the *VMT Memo*, unless otherwise noted.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	

Less Than Significant Impact

Overview. Pursuant to the City of Menifee Traffic Impact Analysis Guidelines, a comprehensive traffic study was not required for this Project due to its small size and consistency with the General Plan land use and zoning designations. This section evaluates the Project relative to established circulation plans and programs, the primary one being the City of Menifee General Plan Circulation Element. As required by the Circulation Element, new projects must meet the Level of Service (LOS) requirements of the County of Riverside, California Department of Transportation (Caltrans), and the City of Menifee will be maintained within the Project study area, and if not, determine the improvements needed to maintain the required LOS. In addition, this analysis must determine if safety and/or operational improvements are necessary to area intersections or roadways due to increased traffic from the proposed Project.

Although traditional traffic analyses focused on LOS changes at local intersections and on local roadways as a result of project-generated traffic under a number of time-based scenarios (e.g., existing conditions, opening year, buildout, etc.). However, the CEQA thresholds of significance for transportation and traffic impacts have changed in recent years. In the past, the CEQA analysis focused on LOS which measures congestion at local intersections and roadway segments. The emphasis of these past studies was to ensure the street grid network functioned well and allowed for efficient movement of vehicles. The current focus is to encourage active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit increases in Vehicle Miles Travelled (VMT). An important part of this analysis is to determine if a proposed action is consistent with both the vehicular and non-vehicular aspects of the Circulation Element of the General Plan.

Transit. Bus service in western Riverside County is provided by the Riverside Transit Authority (RTA). The closest RTA route to the Project area is Route 61 which has a pickup look to the south end of Encanto Drive (i.e., the entrance to the Villagio Villas Apartment complex) so there is a bus stop within reasonable walking distance of the Project site (i.e., a half mile or less). Route 61 also connects with Route 74 just west of the I-215 Freeway at McCall Boulevard.

Bicycle and Pedestrian Trails. There are currently sidewalks along both sides of Encanto Drive from the Villagio Villas Apartment complex north up to McCall Boulevard. There are also sidewalks on the south side of McCall Boulevard both east and west of Encanto Drive. There are currently no trails or bike lane improvements along Encanto

Drive or McCall Boulevard in the Project area.

General Plan Exhibit OSC-1, Proposed Recreational Trails, shows proposed recreational trail routes in the City. However, it indicates there are no regional trails presently planned in the immediate surrounding area, including along McCall Boulevard. In contrast, Exhibit C-4 in the General Plan Circulation Element shows a future Community On-Street NEV/Bike Lane (Class II) planned along McCall Boulevard a half-mile north of the Project site, as well as a Class III Bike Route (lane) coming south on Encanto Drive south of McCall Boulevard, then turning east along El Puente Street and connecting to a future network of Class II bike lanes to the east. These bike lanes will eventually connect to other community and regional multi-use trails in the surrounding area.

The construction of future sidewalks, trails, and bicycle lanes will be governed by the pace of local development and as shown in the City's standard street cross sections for the involved roadways. Therefore, the Project will have less than significant impacts related to non-vehicular access.

The Project will also be required to pay the County's Transportation Uniform Mitigation Fee (TUMF), the City's Development Impact Fees (DIF), and Traffic Signal Mitigation Fee assessed on all new development which collectively help reduce overall impacts to the transportation system (i.e., roads and intersections).

Table 2 of the *VMT Memo* estimates the Project will generate 10 AM peak hour trips, 12 PM peak hour trips, and 162 total daily trips or average daily traffic (ADT). The *TGM* demonstrates that the Project would meet the County's General Plan LOS standards with implementation of planned improvements, payment of TUMF, DIF and Traffic Signal Mitigation Fees, and fair share contributions to offsite incremental increased costs for area-wide road and intersection improvements.

Consistency with Circulation Plans. The following **Table 17-1, Circulation Element Consistency Analysis**, provides an analysis of the Project relative to the City's Circulation Element goals and policies. The proposed Project is residential in nature so it will directly generate approximately 76 new residents⁸ who will be able to take advantage of these non-vehicular transportation options (i.e., sidewalks, bicycle lanes, or transit) as they are available in the future if they so choose. These options can help reduce or be a replacement for commuting. Based on available information, the proposed Project will not conflict with applicable program, plan, or ordinance on the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the Project will have less than significant impacts in this regard and no mitigation is required.

⁸ 24 units X 3.16 persons/household from U.S. Census Bureau = 76 new residents

Table 17-1
Circulation Element Consistency Analysis

Circulation Element Goals and Policies	Project Consistency
Goal C-1: A roadway network that meets the circulation needs of all residents, employees, and visitors to the City of Menifee.	Consistent. Due to its size, the Project will not cause significant impacts to the local circulation network with required traffic mitigation fee payments.
Policy C-1.1: Require roadways to: <ul style="list-style-type: none"> ○ Comply with federal, state and local design and safety standards. ○ Meet the needs of multiple transportation modes and users. ○ Be compatible with the streetscape and surrounding land uses. ○ Be maintained in accordance with best practices. 	Consistent. The City's development review process will assure the Project complies with applicable circulation design requirements, provides sidewalk connections as appropriate to adjacent (future) uses, and will be maintained consistent with City standards.
Policy C-1.2: Require development to mitigate its traffic impacts and achieve a peak hour Level of Service (LOS) D or better at intersections, except at constrained intersections at close proximity to the I-215 where LOS E may be permitted.	Consistent. The Project will not conflict with established City, County, or Caltrans LOS standards with payment of identified DIF and TUMF fees for offsite improvements.
Policy C-1.5: Minimize idling times and vehicle miles traveled to conserve resources, protect air quality, and limit greenhouse gas emissions.	Consistent. Air quality analysis indicates the Project will not have significant impacts related to onsite or offsite emissions, including those from idling vehicles, and the VMT analysis in Section 17.b demonstrates the Project will not have significant VMT impacts.
Goal C-2: A bikeway and community pedestrian network that facilitates and encourages nonmotorized travel throughout the City of Menifee.	Consistent. Sidewalks are available along both sides of Encanto Drive and on the south side of McCall Boulevard which would provide pedestrian access for Project residents. While there are no bike lanes at present, the General Plan shows future bike lanes along McCall Boulevard and Encanto Drive which connect to other bike lanes to the east and into the rest of the City. As development occurs, projects will install sidewalks, trails, and bike ways as required to complete the pedestrian and bicycle access networks for this area.
Policy C-2.1: Require on- and off-street pathways to: <ul style="list-style-type: none"> ○ Comply with federal, state and local design and safety standards. ○ Meet the needs of multiple types of users (families, commuters, recreational beginners, exercise experts) and meet ADA standards and guidelines. ○ Be compatible with the streetscape and surrounding land uses. ○ Be maintained in accordance with best practices. 	Consistent. There are no trails but there are sidewalks in the Project area and the General Plan shows future bicycle lanes along McCall Boulevard and Encanto Drive that connect to other bike lanes planned in the City. The City's development review process will assure that future projects comply with applicable design requirements, provides sidewalk, trail, and bike lane connections as appropriate with future adjacent uses, and will be maintained consistent with City standards.
Policy C-2.2: Provide off-street multipurpose trails and on-street bike lanes as our primary paths of citywide travel, and explore the shared use of low speed roadways for connectivity wherever it is safe to do so.	Consistent. See Response to Policy C-2.1 above regarding sidewalks and bike lanes. At this time the General Plan does not show any trails in this portion of the City.
Policy C-2.3: Require walkways that promote safe and convenient travel between residential areas, businesses, schools, parks, recreation areas, transit facilities, and other key destination points.	Consistent. See Responses to Goal C-2 and Policies C-2.1 and C-2.2 above regarding future non-vehicular travel networks in the City.

Circulation Element Goals and Policies	Project Consistency
Policy C-2.4: Explore opportunities to expand the pedestrian and bicycle networks; this includes consideration of utility easements, drainage corridors, road rights-of-way and other potential options.	Consistent. The City Circulation Element indicates that bicycle lanes/routes, trails, and other non-vehicular circulation access will eventually be provided in Menifee in general and in the Project area specifically as development occurs and is able to fund planned improvements.
Goal C-3: A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit dependent.	Consistent. The Riverside Transit Agency provides bus service to western Riverside County and the Project area is currently served by RTA Route 61.
Policy C-3.2: Require new development to provide transit facilities, such as bus shelters, transit bays, and turnouts, as necessary.	Consistent. The Project will go through the City's development review process and will contribute to bus-related improvements if required.
Goal C-5: An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts.	Consistent. The Project is located east of the I-215 Freeway with access to it along McCall Boulevard to the north and Newport Road to the south.
Policy C-5.3: Support efforts to reduce/eliminate the negative environmental impacts of goods movement.	Not Applicable. Project is residential and will not utilize trucks so it cannot have a demonstrable impact on goods movement.

The analysis and conclusions outlined so far in this sub-section are for operations of the Project at buildout. In addition to operational impacts, the Project will also have short-term, temporary traffic impacts that are not related to any adopted plan or program but should be disclosed in this document for transparency. In terms of construction traffic associated with soil movement, the grading plan indicates there will be 2,154 cubic yards (CY) of soil movement on or off the site (i.e., 2,079 CY export and 75 CY import). Assuming 4 loads per hour, 8 hours/day, and 13 CY/load, this soil movement traffic will occur over approximately 5 working days or one working week.

To assure that Project impacts on local roads and intersections do not exceed City LOS standards and fair share requirements identified in the Circulation Element, the Project must pay County Transportation Uniform Mitigation Fee (TUMF) and City Development Impact Fees (DIF). Compliance with these standard conditions is considered regulatory compliance and not separate mitigation under CEQA.

Summary. Based on this information, the Project will not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and the County General Plan. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?			X	

Less Than Significant Impact

In the fall of 2013, SB 743 was passed by the legislature and signed into law by the governor. SB 743 requires that delay-based metrics such as roadway capacity and level of service will no longer be the performance measures used for the determination of the transportation impacts of projects in studies conducted under CEQA. Instead, new performance measures such as Vehicle Miles Traveled (VMT) will be used.

Per the City's established procedures, a screening analysis of VMT was prepared to determine if a full VMT analysis was required for the proposed Project, which includes construction and occupancy of 24 apartment units and the Project site is currently vacant. VMT screening is required for CEQA purposes for all projects being considered after July 1, 2020. The City's adopted VMT guidelines (June 2020) were utilized to determine Project screening.

According to the *VMT Memo*, the City's *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled*, dated June 3, 2020, prepared by Fehr & Peers, provides recommendations in the form of thresholds of significance and methodology for identifying VMT-related impacts. The proposed Project is subject to a VMT analysis and will adhere to the recommendations and practices described in the City's guidelines. The City has developed three types of screening criteria that can be applied to effectively screen projects from project-level assessment. These are summarized below:

- Criteria 1: Transit Priority Area (TPA) Screening
- Criteria 2: Low VMT Area Screening
- Criteria 3: Low Project Type Screening

Per the City's Guidelines, residential and office projects located within a low VMT-generating area are presumed to have a less than significant impact. To identify if the project is in a low VMT-generating area, the Western Riverside Council of Governments (WRCOG) online screening tool was used to compare the appropriate baseline project Traffic Analysis Zone (TAZ) VMT to the City's adopted threshold of significance of 33.6 VMT/service population based on the County of Riverside General Plan Buildout VMT per service population. The results of the VMT screening analysis are summarized in **Table 17-2, VMT Screening Analysis**.

Table 17-2
VMT Screening Analysis¹

Project TAZ	Baseline Year	VMT/Service Population
1061	2024	29.5
VMT Threshold of Significance (County Future Buildout)		33.6
Potentially Significant Impact?		No

¹ Western Riverside Council of Governments VMT Screening Tool. Website: Accessed: Sept 2022
<https://fehrandpeers.maps.arcgis.com/apps/webappviewer/index.html?id=4e34ad3196464c8086c881189237b25c>
 Website accessed September 2022

Based on the results of the WRCOG VMT online screening tool, the proposed project's TAZ VMT was calculated to be 29.5 VMT/service population. Since the project's TAZ VMT is less than the County of Riverside General Plan Buildout threshold of 33.6 VMT/service population, the proposed project satisfies the Step 2: Low VMT Area Screening criterion. Therefore, the Project is presumed to have a less than significant impact on VMT and no further VMT analysis is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	

Less Than Significant Impact

The Project site is very small (0.82-acre) and proposes an additional 24 apartment units to be incorporated into the existing apartment complex north and east of the site. The apartment complex takes access from Encanto Drive which is a serpentine road that connects to McCall Road, a major arterial, a half-mile north of the Project site. The Project will utilize the existing roadway and intersection network and does not need to create any new roadways or intersections. Reference **Table 1, Surrounding Land Uses**, and **Figure 8, Aerial Photo**, provided in Section I of this IS.

The Project has been reviewed by City Traffic Engineering Staff, and as designed, will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Project driveway intersections and internal circulation are safe. Adequate sight distance has been provided. Existing driveway widths will accommodate Project traffic, and traffic control devices (stop signs) are provided where necessary for entering and exiting the apartment complex. No incompatible uses (e.g., farm equipment) are located in proximity to the Project, although the surrounding vacant lands are regularly disked for weed abatement.

In addition, improvement plans will be subject to City review and approval which will ensure that local intersections and internal circulation are safe, with adequate sight distance, driveway widths are adequate, and stop signs are located where necessary for safely entering and exiting the site. This will eliminate any Project impacts due to a design feature. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in inadequate emergency access?			X	

Less Than Significant Impact

The Project site is located at the end of Encanto Drive a half-mile south of McCall Boulevard which is a major east-west arterial through the center of the City that also has direct access to the north-south I-215 Freeway just west of the Project site.

A very limited potential exists for the Project to interfere with an emergency response or evacuation plan during construction. Construction work associated with the Project will be limited to lateral utility connections (i.e., sewer) within the adjacent apartment complex and will require minimal traffic diversion. Control of access will ensure emergency access to the site and Project area during construction through the submittal and approval of a traffic control plan (TCP). The TCP is designed to mitigate any construction circulation impacts. The TCP is a standard condition and is not considered unique mitigation under CEQA. Following construction, emergency access to the Project site and entire

apartment complex will remain as it was prior to the proposed Project. Any impacts during construction are considered less than significant.

The proposed Project is required to comply with Fire Department requirements for adequate access. Project site access and circulation will provide adequate access and turning radius for emergency vehicles, consistent with the Fire Department's requirements. Any impacts during construction are considered less than significant.

Mitigation Measures

No mitigation measures are required.

18. TRIBAL CULTURAL RESOURCES.

Source(s): *Phase I Cultural Resources Assessment, PPL21-0375, GPA PLN21-076, and CZ PLN21-0377, City of Menifee*, prepared by Jean Keller PhD, 1-2023 (CRA, **Appendix D**): Assembly Bill (AB) 52; Senate Bill (SB) 18; Public Resources Codes; and City Staff.

Applicable General Plan Policies:

- **Goal OSC-5:** Archaeological, historical, and cultural resources that are protected and integrated into the City's built environment.
- **Policy OSC-5.1:** Preserve and protect significant archaeological, historic, and cultural sites, places, districts, structures, landforms, objects and native burial sites, and other features, such as Ringing Rock and Grandmother Oak, consistent with state law.
- **Policy OSC-5.3:** Preserve sacred sites identified by the Pechanga Band of Luiseño Indians and Soboba Band of Luiseno Indians, such as tribal burial grounds, by avoiding activities that would negatively impact the sites.
- **Policy OSC-5.5:** Establish clear and responsible practices to identify, evaluate, and protect previously unknown archaeological, historic, and cultural sites, following CEQA and NEPA procedure.

Analysis of Project Effect and Determination of Significance:

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.i) Listed or eligible for listing in the California Register of Historical resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)			X	

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to a defined Tribal Cultural Resource (TCR) may result in a significant effect on the environment. AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining if a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. The lead agency is then required to notify the tribe within 14 days of deeming a development application subject to CEQA complete to notify the requesting tribe as an invitation to consult on the project. AB 52 identifies examples of mitigation measures that will avoid or minimize impacts to a TCR. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of intent to adopt a negative declaration/mitigated negative declaration circulated on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California PRC, relating to Native Americans.

The Project is also subject to the requirements of Senate Bill (SB) 18. SB 18 requires a city or county to consult with the Native American Heritage Commission (NAHC) and any appropriate Native American tribe for the purpose of preserving relevant Traditional Tribal Cultural Places (TTCP) prior to the adoption, revision, amendment, or update of a city's or county's general plan,

specific plan, or designating land as open space. SB 18 provides a new definition of TTCP, which requires that the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. In addition, SB 18 law also adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

According to Eastern Information Center records, the Project area had not been previously surveyed for cultural resources although 2 historical/archaeological sites including a basin grinding feature (P-33-005318) were found within a half mile of the site. The CRA also found no cultural resources visible on the site. The CRA also indicated that information has been obtained through Native American consultation during preparation of the CRA that the subject property is culturally or spiritually significant and no Traditional Cultural Properties that currently serve religious or other community practices are known to exist within the project area. During the current cultural resources evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices.

A search of the *Sacred Lands File* for the subject property was sent on December 8, 2022, and a response received on February 2, 2022, as part of the CRA by the NAHC. Based on the results, Project SB 18 scoping letters were sent on February 2, 2022, and February 3, 2022, to the following 11 tribes listed by the NAHC as being interested in development in the Menifee area:

- Agua Caliente Band of Cahuilla Indians, Jeff Grubbe
- Augustine Band of Cahuilla Mission Indians, Amanda Vance
- Cabazon Band of Mission Indians, Doug Welmas
- Cahuilla Band of Indians, Daniel Salgado
- Los Coyotes Band of Cahuilla and Cupeno Indians, Ray Chapparosa
- Morongo Band of Mission Indians, Robert Martin
- Pala Band of Mission Indians, Shasta Gaughen
- Quechan Tribe of the Fort Yuma Reservation, Jill McCormick
- Ramona Band of Cahuilla Indians, Joseph Hamilton
- Santa Rosa Band of Cahuilla Indians, Lovina Redner
- Torres-Martinez Desert Cahuilla Indians, Thomas Torte

At that time, only one tribal group commented on the Project or expressed a desire to consult with the City on this project. On January 21, 2022, the Agua Caliente Band indicated the subject property was within the Tribe's reservation but was within the Traditional Use Area of their people.

Based on the City's prior experience with and written requests from potentially interested Tribes, AB 52 / SB 18 Notices were sent to the following four (4) Tribes on December 8, 2022:

- Agua Caliente Band of Cahuilla Indians
- Pechanga Band of Indians
- Rincon Cultural Resources Department
- Soboba Band of Luiseño Indians

Responses were received from only two of the tribes. On December 29, 2022, Rincon requested any Project documents on the site. On January 24, 2022, Pechanga requested consultation on the Project. On May 3, 2022, the Agua Caliente Band of Cahuilla Indians indicated the Project was in the Tribe's Traditional Use Area and requested more information about the Project location and characteristics.

Additionally, the *CRA* was provided to the Pechanga Band of Indians on April 6, 2023, May 11, 2023, and January 2, 2024 - no comments were received. The City notified the Tribe at their January 10, 2024, quarterly meeting that the City intends to close out consultation due to no comments received on *CRA*. The City also sent the *CRA* to Rincon on May 11, 2023, and no comments were received.

The seven (7) measures recommended by various tribes in the past have been incorporated into City Standard Conditions of Approval (COAs) and are listed below under 18 a.ii.

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?			X	

Please reference the discussion in Threshold 18.a.i above relative to potential impacts.

Section 5.b and 5.c outline the following seven (7) City Standard Conditions of Approval (COAs) that address potential impacts to cultural resources, including archaeological artifacts and human remains if found during grading.

COA - Inadvertent Archaeological Finds. If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Native American Tribe(s).

i. All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the developer, the archaeologist, the tribal representative(s) and the Community Development Director to discuss the significance of the find.

ii. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representative(s) and the archaeologist, a decision shall be made, with the concurrence of the Community Development Director, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

iii. Grading of further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate

mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal monitors if needed.

iv. Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the appropriate tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition.

v. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the project archaeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

vi. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the landowner and the Tribe(s) cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Community Development Director for decision. The City Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the project archaeologist and shall take into account the cultural and religious principles and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the City Community Development Director shall be appealable to the City Planning Commission and/or City Council.”

COA - Cultural Resources Disposition. In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Menifee Community Development Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

ii. Reburial of the resources on the Project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

iii. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall

be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

COA - Archaeologist Retained. Prior to issuance of a grading permit, the project applicant shall retain a Riverside County qualified archaeologist to monitor all ground disturbing activities in an effort to identify any unknown archaeological resources.

The Project Archaeologist and the Tribal monitor(s) shall manage and oversee monitoring for all initial ground disturbing activities and excavation of each portion of the project site including clearing, grubbing, tree removals, mass or rough grading, trenching, stockpiling of materials, rock crushing, structure demolition and etc. The Project Archaeologist and the Tribal monitor(s), shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources in coordination with any required special interest or tribal monitors.

The developer/permit holder shall submit a fully executed copy of the contract to the Community Development Department to ensure compliance with this condition of approval. Upon verification, the Community Development Department shall clear this condition.

In addition, the Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

- a. Project grading and development scheduling;
- b. The Project archaeologist and the Consulting Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;
- c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

COA - Native American Monitoring (Soboba). Tribal monitor(s) shall be required on-site during all ground-disturbing activities, including grading, stockpiling of materials, engineered fill, rock crushing, etc. The land divider/permit holder shall

retain a qualified tribal monitor(s) from the Soboba Band of Luiseño Indians. Prior to issuance of a grading permit, the developer shall submit a copy of a signed contract between the above-mentioned Tribe and the land divider/permit holder for the monitoring of the project to the Community Development Department and to the Engineering Department. The Tribal Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archaeologist.

COA - Native American Monitoring (Pechanga). Tribal monitor(s) shall be required on-site during all ground-disturbing activities, including grading, stockpiling of materials, engineered fill, rock crushing, etc. The land divider/permit holder shall retain a qualified tribal monitor(s) from the Pechanga Band of Indians. Prior to issuance of a grading permit, the developer shall submit a copy of a signed contract between the above-mentioned Tribe and the land divider/permit holder for the monitoring of the project to the Community Development Department and to the Engineering Department. The Tribal Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archaeologist.

COA - Archaeology Report - Phase III and IV. Prior to final inspection, the developer/permit holder shall prompt the Project Archaeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

With implementation of these City Standard COAs, the proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a Cultural Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Impacts to tribal cultural resources will be less than significant.

Mitigation Measures

No mitigation measures are required.

19. UTILITIES AND SERVICE SYSTEMS.

Source(s): Project Plans, (**Appendix K**); *Preliminary Drainage Study for Villagio Apartments*, prepared by Rick Engineering Company, 1-25-2023 (*Drainage Report*, **Appendix F1**); *Project Specific Water Quality Management Plan, Villagio Apartments*, prepared by Rick Engineering Company, 1-25-2023 (*WQMP*, **Appendix F2**); *Will Serve Letters*, prepared by EMWD (3-6-2024) and Waste Management (2-27-2024) (**Appendix L**); *2020 Urban Water Management Plan (UWMP)*, Eastern Municipal Water District; *Metropolitan Water District 2020 Regional Urban Water Management Plan (RUWMP)*; *2019 Sewer System Management Plan*, EMWD; Assembly Bill (AB) 939 Riverside County Department of Waste Resources (RCDWR), Planning Section and Countywide Integrated Waste Management Plan; CalRecycle; El Sobrante Landfill Fact Sheet, issued by Waste Management of California; and El Sobrante Landfill Annual Monitoring Report for 2020, by USA Waste of CA, Inc., 9-2021.

Applicable General Plan Policies:

Land Use Element

- **Goal LU-3:** A full range of public utilities and related services that provide for the immediate and long-term needs of the community.
- **Policy LU-3.1:** Work with utility providers in the planning, designing, and siting of distribution and support facilities to comply with the standards of the General Plan and Development Code.
- **Policy LU-3.2:** Work with utility provides to increase service capacity as demand increases.
- **Policy LU-3.4:** Require that approval of new development be contingent upon the project's ability to secure appropriate infrastructure services.

Analysis of Project Effect and Determination of Significance:

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	

Less Than Significant Impact

The Project site is currently vacant and has no onsite utility services or facilities. The proposed Project will tie into existing water Eastern Municipal Water District (EMWD) facilities just east of the site in the existing apartment complex, as shown in the *Project Plans*. A “Will Serve” letter from EMWD indicates they can provide water service to the Project site (see **Appendix L**). For additional analysis of water consumption and needed improvements, see Threshold 19.b below.

Wastewater treatment will be also handled by EMWD as indicated in their “Will Serve” letter. As demonstrated in Threshold 19.c below, EMWD has adequate capacity to serve the Project and will

connect to one of the existing EMWD lines in the apartment complex to the east. Sewer system improvements would be constructed by the property owner/developer in accordance with EMWD's standards, specifications and master plan. When graded, the Project site will range in elevation from a high of 1,584' at the southwest corner to a low elevation of 1,487' at the northeast corner. The proposed Project will install an underground infiltration vault in the northwest corner of the site which will be used for both storm water detention and water quality protection.

The County maintains a storm drain line in the existing apartment complex east of the Project site. A new line will be constructed to flow across the site and empty in a vacant portion of the site along the western boundary so that any overflow will be accommodated by the I-215 drainage system per an agreement with Caltrans. All onsite runoff is anticipated to flow into the underground infiltration vault in the northwest corner of the site. Local storm drainage is handled by the City of Menifee while major or regional facilities are managed by the Riverside County Flood Control and Water Conservation District (RCFCWCD). The *Drainage Study* concluded the Project would not increase offsite runoff from pre- to post-development conditions.

As previously discussed in Section 10 of this Initial Study (*Hydrology and Water Quality*), all new development in the County of Riverside is required to comply with provisions of the National Pollutant Discharge Elimination System (NPDES) program, including Waste Discharge Requirements (WDR), and for properties located within the Municipal Separate Sewer Permit (MS4) Permit as enforced by the Santa Ana Regional Water Quality Board (RWQCB). Additionally, there are no storm drains on the Project site or within the immediate vicinity. The *Drainage Study* and *WQMP* concluded that development of the additional structures will require the installation of an underground detention/infiltration vault that will comply with NPDES, WDR, MS4, and RWQCB requirements, the construction of which will have a less than significant impact on storm water drainage systems.

Electricity and natural gas are supplied to the Project area by Southern California Edison (SCE) and Southern California Gas (SCG), respectively. SCE currently maintains overhead electrical transmission and service lines along the north side of the site, but Project service will come from the apartment complex just east of the site and will be undergrounded similar to the existing apartment complex.

SCG maintains natural gas service lines to the existing Villagio Villas Apartment complex and the Project will connect to the closest available connection for natural gas service.

Telephone and cable television services are provided by AT&T and Frontier – these companies maintain service lines in Garbani Road adjacent to the Project site.

The local utility providers have adequate facilities in the existing apartment complex and the surrounding area to adequately serve the proposed Project. For additional information, see Thresholds 19.b through 19.d. Construction work associated with the Project will be limited to lateral utility connections (i.e., sewer) within the adjacent apartment complex. No substantial offsite utility improvements are required by the Project, and the Project will not require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Therefore, impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	

Less Than Significant Impact

See also discussion under Threshold 10.a. The Project site's development plan proposes to connect to the EMWD water supply system. There is an existing water line located within the existing apartment complex to the east, as shown in the Project Plans. In their Will Serve Letter dated 3-6-24, EMWD indicates they can provide water service to the proposed Project.

EMWD is a public water agency formed in 1950 and annexed into the service area of the Metropolitan Water District of Southern California (MWD) in 1951. It is currently one of MWD's 26 member agencies. EMWD presently operates its water supply system under a system permit issued by the California Department of Public Health. EMWD provides potable water, recycled water, and wastewater services to an area of approximately 555 square miles in western Riverside County. EMWD is both a retail and wholesale agency, serving a retail population of 546,146 people and a wholesale population of 215,075 people. As noted in the 2020 UWMP, EMWD is located in one of the fastest growing regions in the nation, and with a growing population comes a growing demand for water.

EMWD has three sources of water supply: 1) imported water from the Metropolitan Water District of Southern California (MWD), 2) local groundwater, and 3) recycled water. Roughly 75% of EMWD's potable water demand is supplied by imported water from MWD through its Colorado River Aqueduct and connections to the State Water Project. EMWD forecasts that it would provide water for future growth in its service area through imported water from MWD.

EMWD procures water from MWD that has been treated at MWD's Skinner Filtration Plant in Winchester and the Mills Filtration Plant in Riverside. In 2020 EMWD obtained 75,000 acre-feet (af) of MWD water treated at MWD filtration plants before delivery, and 16,600 af of raw MWD water treated at EMWD water filtration plants. EMWD has two water filtration plants, one in Hemet and one in San Jacinto, with total existing capacity of 32 million gallons per day or about 35,840 af per year.

Adequate water service can be provided for the Project using existing and planned EMWD facilities. The Project proposes the construction of an interior system of water lines within the existing apartment complex just east of the site. In order to provide a reliable source of water for firefighting purposes, potable water will also be delivered to all fire hydrants and fire sprinkler systems utilizing a separate loop water system. The water system piping has been designed to accommodate both the domestic demand and the fire-fighting demand.

If or when available, the Project may incorporate recycled water for irrigation of common area landscaping, open space, parkways, and roadside landscaping adjacent to public roads. To provide recycled water, EMWD requires proof of permits from the Regional Water Quality Control Board and the California Department of Public Health at the Plot Plan stage of development.

Connections to local water mains will involve temporary and less than significant construction impacts that will occur in conjunction with other on-site improvements. In addition, the Project will

be required to comply with standard conditions (Water Connection Fees and EMWD Water Efficient Guidelines).

It should be noted that the proposed Project is relatively small and well under the threshold requiring a Water Supply Assessment (over 500 residential units) according to SB 610 and California Water Code Section 10910. Therefore, the following information was based on the Project plans, City website, EMWD website, and the 2020 EMWD Urban Water Management Plan.

It is estimated the Project will have approximately 76 residents at buildout (24 units times 3.16 persons per household) based on current federal census data⁹ for the City of Menifee. According to the EMWD website¹⁰, residential uses consume an average of approximately 55 gallons/person/day, therefore it is estimated the Project will consume 4,180 gallons per day or 1.5 million gallons (about 12.1 acre-feet) of potable water each year. This additional amount of water represents 0.03 % of the EMWDs existing treatment capacity (35,840 acre-feet)¹¹ and so the Project is well within the overall service capacity of the EMWD as documented in its current Urban Water Management Plan (UWMP). As identified in the 2020 UWMP, EMWD has the ability to meet its current and project water demands through 2045 during normal, historic single-dry and historic multiple-dry year periods using imported water from MWD with existing supply resources.

There is currently no General Plan land use or zoning designation on the site since this was formerly right of way belonging to Caltrans as part of I-215 maintenance area. Therefore, the Project will introduce a total of 24 new residential units to the site that were not anticipated under the General Plan Environmental Impact Report. However, it should be noted the existing apartment neighborhood was not built out to its maximum density allowed under the General Plan or zoning, and the addition of 24 more units will still not cause it to exceed the overall density limits of the General Plan land use designation (20.1-24 R) or the zoning category (High Density Residential). Therefore, the proposed Project would be consistent with the maximum allowed units under the General Plan land use designation and zoning and would not result in an inconsistency with the land use designation in the City's General Plan. The EMWD's 2020 UWMP was based on land uses in the Menifee General Plan in 2020, and the site carried no land use or zoning designation at that time. However, the Project is very small and generally consistent with the proposed General Plan land use designations for the reasons outlined above. Therefore, the future water needs of the Project, as part of the existing apartment complex, are accounted for in the 2020 UWMP.

The City has standard conditions of approval (COAs) for new residential development that require compliance with the water conservation guidelines of the latest California Green Building Code (CalGreen) as well as implementing the "low impact development" (i.e., water conservation) requirements of EMWD and the City. Implementation of these COAs is considered regulatory compliance and is not considered unique mitigation under CEQA.

Implementation of the proposed Project will not require, or result in, the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Therefore, sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Any impacts are considered less than significant, and no mitigation is required.

⁹ 2020 Census data shows City had an average of 3.16 persons per household for 2016-2020
<https://www.census.gov/quickfacts/menifeecitycalifornia>

¹⁰ Residential water consumption rate from EMWD website <https://www.emwd.org/post/residential-water-budgets-and-rates>

¹¹ One acre-foot of water equals approximately 126,000 gallons

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?			X	

Less Than Significant Impact

Refer also to Threshold 10.a. Wastewater collection services in the City of Menifee are provided by the City under contract to the EMWD (see Will Serve Letter in **Appendix L**). The Project site is not currently connected to the local wastewater/sewer system given its vacant, undeveloped condition, however, the City's "Will Serve" Letter indicates there is an existing sewer main line located just east of the site within the existing apartment complex. The Project will be required to construct an exterior connection to this line as well as an interior system of sewer lines to serve the two new buildings.

The EMWD provides wastewater treatment services to approximately 239,000 customers within its service area and currently treats approximately 43 million gallons per day of wastewater at its five active regional water reclamation facilities through 1,813 miles of sewer pipelines. These reclamation plants include San Jacinto Regional Water Reclamation Facility; Moreno Valley Regional Water Reclamation Facility; Perris Valley Regional Water Reclamation Facility; Sun City Regional Water Reclamation Facility; and Temecula Valley Regional Water Reclamation Facility.

Wastewater generated from the Project site would be treated at the Perris Valley Regional Water Reclamation Facility (PVRWRF). The typical daily flow at the PVRWRF is currently 15.5 million gallons per day (MGD) with a current capacity of 22 MGD and has a current excess capacity of approximately 6.5 MGD. The EMWD indicates the PVRWRF has an ultimate capacity¹² of 100 MGD.

It is estimated the Project will have 76 residents at buildout (24 units times 3.16 persons per household) based on current federal census data¹³ for the City of Menifee. According to the EMWD website¹⁴, single family residential uses generate an average of approximately 50 gallons per person per day, therefore it is estimated the Project will generate 3,800 gallons per day or 1.4 MGD wastewater generated each year. This additional amount of wastewater represents less than 0.001 % of the EMWD's existing PVRWRF daily flow rate (15.5 MGD) and even less than that compared to its current maximum treatment capacity (22 MGD). Therefore, the Project is well within the overall sewer service and maintenance capacity of the EMWD as documented on the EMWD website and in its current 2019 Sewer System Management Plan¹⁵.

It should be noted that EMWD's 2020 UWMP and 2019 Sewer System Management Plan were based on land uses in the Menifee General Plan, and the proposed Project is consistent with the General Plan land use designation. Therefore, the future wastewater needs of the Project are accounted for by the EMWD in planning for future wastewater treatment services.

¹² EMWD Regional Water Reclamation Facility Factsheet, January 2021
<https://www.emwd.org/sites/main/files/file-attachments/sjvrwrfactsheet.pdf>

¹³ 2020 Census data shows City had an average of 3.16 persons per household for 2016-2020
<https://www.census.gov/quickfacts/menifeecitycalifornia>

¹⁴ Residential wastewater generation rate from EMWD website

¹⁵ EMWD 2019 Sewer System Management Plan, EMWD website
https://www.emwd.org/sites/main/files/file-attachments/2019_full_report_ssmp.pdf?1576617293

The City has standard COAs for new residential development that require compliance with the water conservation guidelines of the latest California Green Building Code (CalGreen) as well as implementing the “low impact development” (i.e., water conservation) requirements of EMWD and the City. The use of water-reducing toilet fixtures will help reduce potential wastewater generation as well. The Project will also be required to satisfy City and EMWD requirements related to the payment of development impact fees and/or the provision of on- or offsite wastewater conveyance features as necessary, and for their installation and maintenance prior to the issuance of building permits. Measures that reduce water consumption can also help reduce wastewater generation (e.g., low flow toilets). Implementation of these COAs is considered regulatory compliance and is not considered unique mitigation under CEQA.

Connections to local sewer mains will involve temporary and less than significant construction impacts that will occur in conjunction with other on-site improvements. In addition, the Project will be required to comply with standard conditions (e.g., Sewer Connection Fees).

Implementation of the proposed Project will not require, or result in, the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, implementation of the proposed Project will not require, or result in, the construction of new wastewater treatment facilities or expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects. Any impacts will be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of State or Local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	

Less Than Significant Impact

Solid waste management in Riverside County is required to comply with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939) which redefined solid waste management in terms of both objectives and planning responsibilities for local jurisdictions and the state. AB 939 was adopted in an effort to reduce the volume and toxicity of solid waste that is landfilled and incinerated by requiring local governments to prepare and implement plans to improve the management of waste resources. AB 939 required each of the cities and unincorporated portions of counties throughout the state to divert a minimum of 25% by 1995 and 50% of the solid waste landfilled by the year 2000. To attain these goals for reductions in disposal, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices.

The Countywide Summary Plan contains goals and policies, as well as a summary of integrated waste management issues faced by the County and its cities. The Summary Plan summarizes the steps needed to cooperatively implement programs among the County’s jurisdictions to meet and maintain the 50% diversion mandates. The Countywide Siting Element demonstrates that there are at least 15 years of remaining disposal capacity to serve all the jurisdictions within the County. If there is not adequate capacity, a discussion of alternative disposal sites and additional diversion programs must be included in the Siting Element.

The Riverside County Department of Waste Resources (RCDWR) - Planning Section ensures that the Department's planned and proposed waste management activities and projects are in compliance with applicable federal, State and local land use and environmental laws, regulations, and ordinances. The RCDWR operates six (6) active landfills (Badlands, Blythe, Desert Center, Lamb Canyon, Mecca II and Oasis) and administers a contract agreement for the private El Sobrante Landfill serving the greater Riverside County area. The RCDWR also oversees several transfer station leases, as well as a number of recycling and other special waste diversion programs.

Municipal waste collection services for the City of Menifee, including the Project site, is provided by Waste Management (WM). In February 2024, WM issued a Will Serve Letter for the proposed Project (see **Appendix L**). The Project site is located in the primary service area of the Lamb Canyon Landfill with additional capacity available at the El Sobrante Landfill for all non-hazardous, non-recyclable, non-green municipal waste. The Project site is located approximately 14.3 miles southwest of the Lamb Canyon Landfill and 26 miles southeast of the El Sobrante Landfill.

Lamb Canyon Landfill

The Lamb Canyon Landfill is a Class III municipal solid waste facility owned and operated by the Riverside County Department of Waste Resources (RCDWR). It is located in the unincorporated Badlands/Lamb Canyon area of Riverside County, south of Interstate 10 (I-10) and the City of Beaumont, and northeast of the City of Menifee at 16411 Lamb Canyon Road (State Route 79). The landfill is currently permitted a five-year timeline on (July 2018; CalRecycle SWIS Facility No. 33-AA-0007) to receive 5,000 tons of refuse per day with a permitted Traffic Volume of 913 vehicle per day. The maximum permitted capacity is 38,953,653 cubic yards and plans to continue operations through April 1, 2029 (estimated closure date).

El Sobrante Landfill

The Project site is also located within the service area of the El Sobrante Landfill, a service area that includes the cities/communities within southwestern Riverside County including the Project site and multiple jurisdictions within the counties of Los Angeles, Orange, San Bernardino and San Diego. Located near the center of the highly populated western third of Riverside County, it processes approximately 43 % of Riverside County's annual waste, according to Waste Management, Inc., the landfill's operator (WM). The El Sobrante Landfill is located approximately 20 miles northwest of the Project site in the unincorporated Temescal Canyon area of Riverside County between the City of Lake Elsinore and the City of Corona, east of Interstate 15 and Temescal Canyon Road, and south of Cajalco Road, at 10910 Dawson Canyon Road near Corona. The El Sobrante Landfill facility currently comprises a total area of 1,322 acres which includes a 495-acre footprint permitted for landfill operations, and a 688-acre wildlife preserve. The current operating permit allows a maximum of 16,054 tons per day of waste to be accepted at the landfill, due to limitations on the number of vehicle trips per day.

Project Impacts

Waste collection in the City is managed by WM under contract to the City, while waste disposal is managed by the County. Solid waste generation rates estimate the amount of waste created by residences and businesses over a certain amount of time (day, year, etc.). Waste generation includes all materials discarded, whether or not they are later recycled or disposed of in a landfill. Waste generation rates for residential and commercial activities can be used to estimate the impact of new developments on the local waste stream. In this way, they are useful in providing a general level of information for planning purposes and estimating potential effects. It should be noted that the Generation Rates used by the County do not take into account any recycling,

reduction or diversion (potentially upwards of 50%-75%, associated with compliance with AB 341. As set forth in Section 4.17.4 (Solid Waste) of the General Plan Draft Environmental Impact Report (DEIR), the County applies an annual Generation Rate of 0.41 Tons per dwelling unit for residential uses. The Project proposes 24 residential units which would generate 9.8 tons per year or 0.03 tons per day of waste. This represents less than 0.001 % of both the Lamb Canyon Landfill daily capacity (5,000 tons per day) and the El Sobrante Landfill daily capacity (16,054 tons per day). The amount of additional solid waste generated by the Project operation would have an incremental, but nominal, impact on the existing solid waste infrastructure at the Lamb Canyon and El Sobrante Landfills.

Therefore, the proposed Project use would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant, and no mitigation is required.

Would the Project?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Less Than Significant Impact

All land uses within Riverside County area, including those in the City of Menifee, that generate solid waste are required to coordinate with the County's contracted waste transfer hauler (Waste Management, Inc.) to collect solid waste on a common schedule as established in applicable local, regional, and State programs. Additionally, all development in the City is required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991), AB 939 (CalRecycle), and other local, State, and federal solid waste disposal standards.

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan, that identifies how each jurisdiction will meet the mandatory state diversion goal of 50 % by and after the year 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible."

According to its website, the City of Menifee maintains a number of green programs to help reduce solid waste generated by its residents and businesses. Programs include: 31% of the City fleet are hybrid electric vehicles (reduces fossil fuel use); City purchases recycled paper products; 400 cubic yards of mulch was used in City parks in 2020; recycling is encouraged at all City-sponsored events; and 34% of collected wastes were diverted from landfills in 2020.

The Project would be required to comply with applicable aspects of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991), AB 939, and other applicable local, State, and federal solid waste disposal standards as a matter of regulatory policy, thereby ensuring that the solid waste stream to the waste disposal facilities is reduced in accordance with existing regulations. Any impacts would be less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

20. WILDFIRE.

Source(s): Google Earth; Exhibit S-9 of the *General Plan*; *GPEIR* (Chapter 5.8, *Hazards and Hazardous Materials*); and **Figure 7-1, Surrounding Topography**, provided in Section 7. Geology and Soils of this Initial Study.

Applicable General Plan Policies:

- **Goal S-4:** A community that has effective fire mitigation and response measures in place, and as a result is minimally impacted by wildland and structure fires.
- **Policy S-4.1:** Require fire-resistant building construction materials, the use of vegetation control methods, and other construction and fire prevention features to reduce the hazard of wildland fire.
- **Policy S-4.2:** Ensure, to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure, and response times, are adequate for all sections of the City.
- **Policy S-4.3:** Encourage owners of non-sprinklered high-occupancy structures to retrofit their buildings to include internal sprinklers.
- **Policy S-4.4:** Review development proposals for impacts to fire facilities and compatibility with fire areas or mitigate.
- **Goal S-6:** A City that responds and recovers in an effective and timely manner from natural disasters such as flooding, fire, and earthquakes, and as a result is not impacted by civil unrest that may occur following a natural disaster.
- **Policy S-6.1:** Continuously review, update, and implement emergency preparedness, response, and recovery plans that make the best use of the City- and county-specific emergency management resources available.
- **Goal S-5:** A community that has reduced the potential for hazardous materials contamination.
- **Policy S-5.1:** Locate facilities involved in the production, use, storage, transport, or disposal of hazardous materials away from land uses that may be adversely impacted by such activities and areas susceptible to impacts or damage from a natural disaster.
- **Policy S-5.2:** Ensure that the fire department can continue to respond safely and effectively to a hazardous materials incident in the City, whether it is a spill at a permitted facility, or the result of an accident along a section of the freeway or railroads that extend across the City.

Analysis of Project Effect and Determination of Significance:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	

Less Than Significant Impact

The proposed Project site is not located within a Fire Hazard Safety Zone or Local Responsibility Area.

A limited potential exists to interfere with an emergency response or evacuation plan during construction. Construction work in the street associated with the Project will be limited to lateral utility connections (i.e., water or sewer) that will be limited to nominal potential traffic diversion. Control of access will ensure emergency access to the site and Project area during construction

through the submittal and approval of a traffic control plan (TCP). The TCP is designed to alleviate any construction circulation impacts. The TCP is a standard condition and is not considered unique mitigation under CEQA. Following construction, emergency access to the Project site and area will remain as it was prior to the proposed Project.

All Project elements, including landscaping, will be sited with sufficient clearance from the proposed residences so as to not interfere with emergency access to and evacuation from the site. The proposed Project is required to comply with the California Fire Code as adopted by the Menifee Municipal Code.

Exhibit S-9 of the General Plan shows that the nearest evacuation routes to the Project site are Interstate 215 and McCall Boulevard. Although the Project lies directly adjacent to Interstate 215, the nearest connection is approximately 0.5 miles away to the north to McCall Boulevard via Encanto Road. Given the fact that the Project is relatively small in nature and has no direct connection to either McCall Boulevard or Interstate 215, impacts to an established evacuation plan will be less than significant, and no mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	

Less Than Significant Impact

The proposed Project site is not located within a Very High Fire Hazard Safety Zone or a Local Responsibility Area.

Topographic relief at the subject property is relatively low with the terrain being generally flat. Elevations onsite are approximately 1,485 AMSL. The Project site is currently vacant, but existing apartment developments are located adjacent to the Project on the north and east and south.

All new housing associated with this subdivision shall be required to comply with the California Building Code, which governs building materials, and systems and/or assemblies to assist in fire protection. Compliance with building code requirements is not considered unique mitigation under CEQA.

The proposed Project has been reviewed, and conditions of approval have been issued to address any potential impacts to Fire Resources, consistent with the Fire Hazards section of the Safety Element of the General Plan. As part of the Project approval(s), standard conditions are assessed on the proposed Project to reduce impacts from the proposed Project to fire services. Prior to final map recordation, prior to grading permit issuance, prior to building permit issuance, and prior to building final inspection, the Project will need to demonstrate compliance with the General Plan as well as with the current building code. Adherence to the other fire protection regulatory compliance are typically standard conditions of approval and are not considered unique mitigation pursuant to CEQA. With the application of the appropriate sections of the Building Code, the Project would not, due to slope, prevailing winds, and other factors, significantly exacerbate wildfire risks, and thereby expose Project occupants to pollutant

concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts will be less than significant, and no mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	

Less Than Significant Impact

The proposed Project site is not located within a Fire Hazard Safety Zone or a Local Responsibility Area mainly due to the vegetated knoll to the southwest. All new housing associated with this subdivision shall be required to comply with the California Building Code, which governs building materials, and systems and/or assemblies used in exterior design of buildings to assist in fire protection.

All of the planned improvements related to fire protection for the tentative tract will be built and maintained onsite, and there are no new that could exacerbate fire risks to people or the environment.

The Project does not include and or require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The Project site is currently vacant but new access driveways and utilities will be installed onsite (but not into any wildland areas) in accordance with the respective jurisdiction requirements.

Given the relatively small nature of the Project and the fact that it is essentially an extension of an existing development, impacts to existing infrastructure is considered to be less than significant, and no mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Less than Significant Impact

The proposed Project site is not located within an isolated Very High Fire Hazard Safety Zone or a Local Responsibility Area. All new housing associated with this Project shall be required to comply with the California Building Code, which governs building materials, and systems and/or assemblies used in exterior design of buildings in order to assist in fire protection.

Elevations are approximately 1,485 AMSL. Therefore, there are steep slopes but no water sources within a one-quarter mile radius of the Project site that could result in flooding or inundation. The Project site plan shows drainage control area at the southeast corner of the site, which will feed into flood control measures in adjacent developments.

Based on this information, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts will be less than significant, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

21. MANDATORY FINDINGS OF SIGNIFICANCE.

Source(s): Staff review and Project Plans (**Appendix K**).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

Less Than Significant Impact with Mitigation Incorporated

Implementation of the proposed Project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

Please reference the discussions in Section 4 (Biological Resources) regarding the four recommended mitigation measures shown below. In addition to the mitigation measures outlined in Section 4 and below, seven standard conditions will apply to the proposed Project to protect cultural resources as outlined in Section 5. Any impacts are considered less than significant with mitigation and standard conditions incorporated.

Biological Resources

MM-BIO-1: Nesting Bird Survey
MM-BIO-2: Burrowing Owl Survey

The City hereby finds that impacts related to biological and cultural resources will be less than significant with the recommended standard conditions and mitigation incorporated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	

Less Than Significant Impact

Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long term, due to the permanent land use changes and operational characteristics involved with the Project.

Section 15130(b)(1) of the CEQA Guidelines identifies two methods to determine the scope of related projects for cumulative impact analysis:

- *List-of-Projects Method*: a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.
- *Summary-of-Projections Method*: a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency. The proposed Project is consistent with the City of San Jacinto General Plan, AQMP, and the CMP. Therefore, cumulative impacts will be less than significant.

Based on the analysis of the Project's impacts in the responses to items 1 through 20 of this Environmental Assessment, the proposed Project does not have impacts which are individually limited, but cumulatively considerable. Standard conditions will apply to the proposed Project. Any impacts will be less than significant, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Less Than Significant Impact with Mitigation Incorporated

Based on the analysis of the Project's impacts in the responses to items 1 through 20, there is no indication that this Project will result in substantial adverse effects on human beings. Section 13 (Noise) includes mitigation measures as shown below which will reduce potential impacts to less than significant levels. Long-term effects include increased vehicular traffic, traffic related noise, use of hazardous materials, emissions of criteria pollutants and greenhouse gas emissions. The analysis herein concludes that direct and indirect environmental effects in these other topics will remain at less than significant levels. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant with mitigation incorporated and standard regulatory compliance.

Air

MM-AQ-1 Air Filtration Units (onsite health risks)

Noise

MM-NOI-1	Construction Hours
MM-NOI-2	Public Notice
MM-NOI-3	Equipment Mufflers
MM-NOI-4	Electrical Service
MM-NOI-5	Staging Limits
MM-NOI-6	Construction Idling Limits
MM-NOI-7	Noise Insulation
MM-NOI-8	Unit Ventilation
MM-NOI-9	Final Noise Study
MM-NOI-10	Delivery Limits
MM-NOI-11	Vehicle Idling
MM-NOI-12	Boundary Wall

V. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration as per California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any: N/A

Location Where Earlier Analyses, if used, are available for review:

VI. SOURCES/REFERENCES

Websites were accessed between November 2022 and December 2023

Assembly Bill 52

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52

Assembly Bill 939

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=198919900AB939

California Building Code (CBC)

<http://www.bsc.ca.gov/Home/Current2013Codes.aspx>

CalRecycle

<https://www2.calrecycle.ca.gov/swfacilities/Directory/36-AA-0055/>

<https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial>

<https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2256?siteID=2402>

Department of Finance

<https://dof.ca.gov/>

Eastern Municipal Water District 2019 Sewer System Management Plan

<https://www.emwd.org/post/sewer-system-management-plan-ssmp>

Eastern Municipal Water District 2020 Urban Water Management Plan

<https://www.emwd.org/post/urban-water-management-plan>

EI Sobrante Landfill Annual Monitoring Report

http://www.rcwaste.org/Portals/0/Files/EISobrante/2020/FINAL%20-2019_EI_Sobrante_Landfill_Annual_Status_Report.pdf

EI Sobrante Landfill Fact Sheet

<https://www.wmsolutions.com/locations/details/id/180>

EnviroStor website

<http://www.envirostor.dtsc.ca.gov>

Federal Emergency Management Agency (FEMA) National Flood Hazard Viewer

<https://fema.maps.arcgis.com/apps/webappviewer/index.html>

GEOTRACKER website

<http://geotracker.waterboards.ca.gov>

Google Earth
<https://earth.google.com>

March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan, November 13, 2014
<https://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700>

Menifee General Plan
<https://www.cityofmenifee.us/221/General-Plan>

Menifee General Plan Environmental Impact Report
<https://www.cityofmenifee.us/262/Environmental-Impact-Report>

Menifee Municipal Code
<https://codelibrary.amlegal.com/codes/menifee/latest/overview>

Menifee Citywide Trails Map
<https://www.cityofmenifee.us/295/Park-Trails-Open-Space-Recreation-Master>

Menifee Union School District
<https://www.menifeeUSD.org/>

Menifee Zoning Map
<https://www.cityofmenifee.us/DocumentCenter/View/10804/Current-Zoning-Map-041520?bidId=>

Metropolitan Water District 2020 Regional Urban Water Management Plan
<https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf>

Perris Union High School District
<https://www.puhsd.org/>

Public Resources Code (PRC)
<http://www.search-california-law.com/research/titletoc/ca/PRC/index.html>

Riverside Transit Agency
<https://www.riversidetransit.com/>

Senate Bill 18
http://www.leginfo.ca.gov/pub/03-04/bill/sen/sb_0001-0050/sb_18_cfa_20030819_111117_asm_comm.html
https://opr.ca.gov/ceqa/docs/20220223-Tribal_Consultation_Checklist.pdf

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
<https://scag.ca.gov/connect-socal>

U.S. Census Bureau (USCB) QuickFacts, Menifee City, CA, 2022 US Census data
<https://www.census.gov/quickfacts/fact/table/menifeecitycalifornia/>

Western Riverside County Multiple Species Habitat Conservation Plan Interactive Maps
<https://www.wrc-rca.org/rcamaps/>

APPENDICES-

The technical appendices can be found on the City's website:

<https://www.cityofmenifee.us/325/Environmental-Notices-Documents>

Villagio Apartments

Health Risk Assessment Report

City of Menifee, CA

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Noise Study Reports | Vibration Studies | Air Quality | Greenhouse Gas | Health Risk Assessments

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I. Introduction and Setting

A. Purpose and Objectives

This study was performed to address the possibility of cancer risk from road-source diesel air emissions. The project is proposed addition to a multi-family apartment complex with a total of 120 units, as such, would not be a source of operational toxic air contaminants (TACs).

The objectives of the study include:

- discussion of cancer risk thresholds of significance
- analysis of the cancer risk from construction diesel emissions
- recommendations for mitigation measures

B. Project Location

The proposed project is located at 28377 Encanto Drive, in the City of Menifee, CA. A vicinity map showing the project location is provided on Figure 1.

C. Project Description

The Villagio Apartments Project provides for the development of an approximately 22,588-square foot addition to an apartment complex. Figure 2 illustrates the site plan.

D. Sensitive Receptors in Project Vicinity

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the South Coast Air Quality Management District (SCAQMD) defines a sensitive receptor as a land use where such people are likely to reside or spend a substantial amount of time include residences, schools, playgrounds, day care centers, job sites, retirement homes, convalescent homes, and hospitals.

Sensitive receptors are being created within the project site as the project proposes residential uses. The nearest existing sensitive receptors are the existing multi-family residential dwelling unit located approximately 60 feet to the north and to the east.

According to site plan, the closest any new residential use could be to potential roadway diesel particulate matter (DPM) sources would be approximately 175 feet from the nearest lanes of travel of Interstate 215. Impacts to the proposed residential development from roadway related diesel traffic is examined in this analysis report.

E. Executive Summary of Findings

The project is a 2-story multi-family apartment complex with a total of 120 units, including 96 existing units and 24 proposed units. The project will not be a significant source of toxic air contaminants (TACs) but would be exposed to significant DPM TAC emissions and cancer risk from nearby traffic along Interstate 215.

Therefore, it is concluded that the project site will be impacted by TAC emissions without mitigation. However, with inclusion of Mitigation Measure 1 (below), exposure would be less than significant. The operational health risk impacts for non-cancer related impacts are less than 1.0; therefore, they are considered to be less significant.

Mitigation Measures:

Measure 1: Install minimum efficiency reporting value (MERV) 13 filters in the project. The project will follow the guidance from the City of Menifee EIR:

The applicant shall be required to install high efficiency MERV filters in the intake of residential ventilation systems, consistent with the recommendations of the HRA. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur:

- a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units.
- b) For rental units, the owner/property manager shall maintain and replace MERV filters in accordance with the manufacture's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open.
- c) For residential owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.

Figure 1
Project Location Map

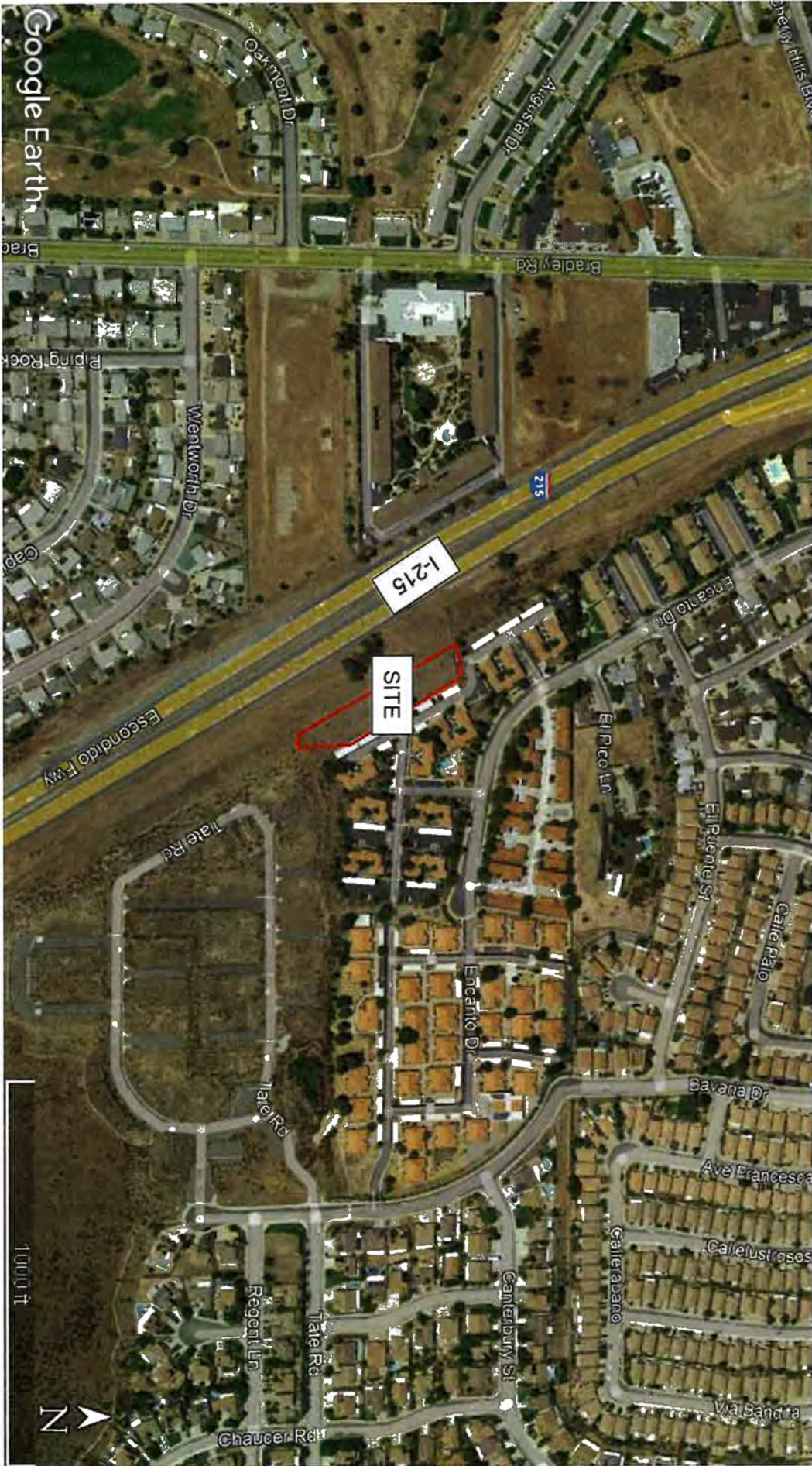
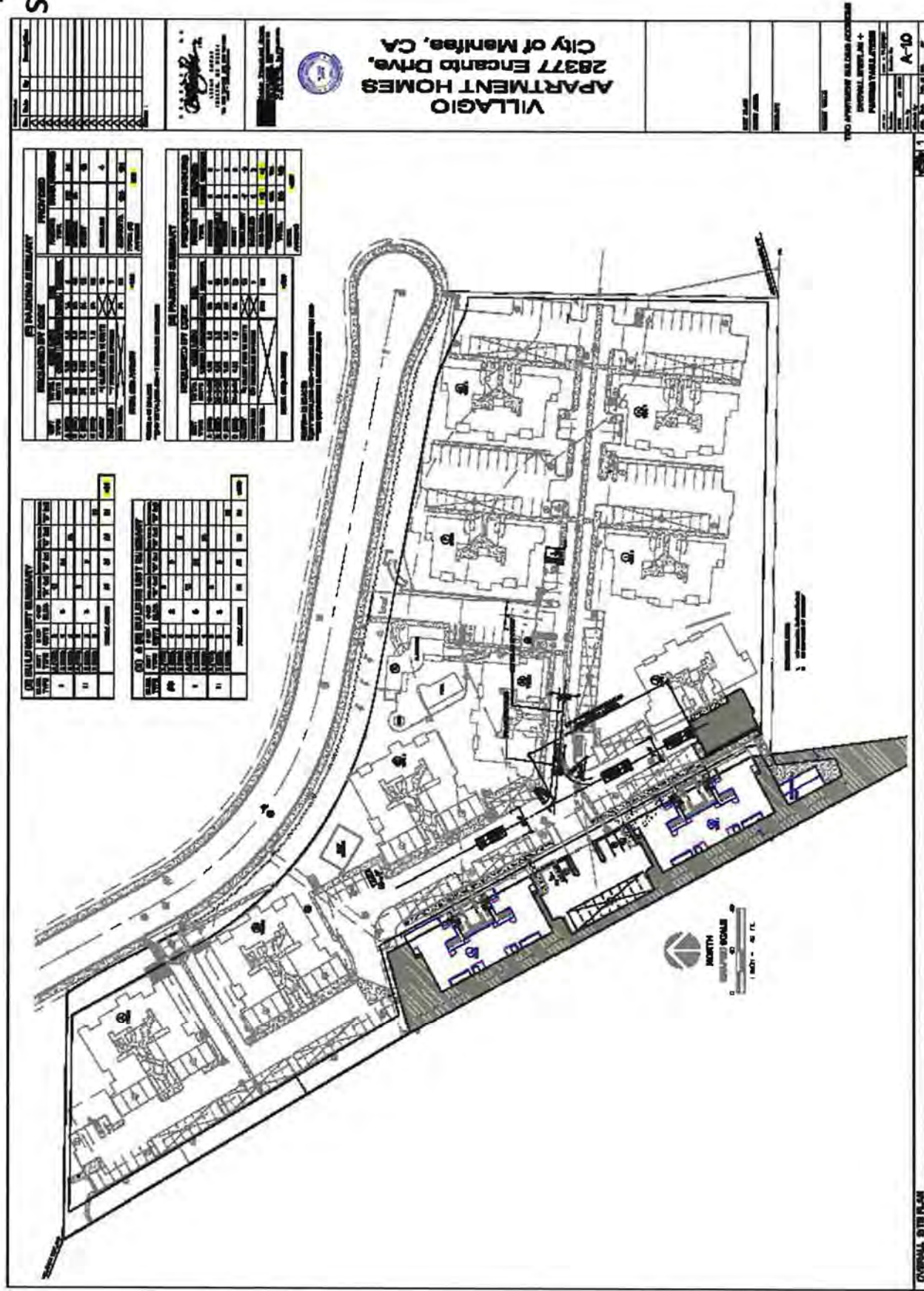


Figure 2
Site Plan



II. Regulation and Existing Toxic Air Contaminants

The proposed project would be exposed to toxic air contaminant emissions from diesel truck emissions from nearby freeway DPM sources. Mitigation Measure 3-2 of the City of Menifee General Plan EIR requires all residential projects within 500 feet of Interstate 215 to submit a health risk assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD). The Villagio Apartments project will be a residential project consisting of 96 existing dwelling units and 24 proposed dwelling units and is to be located 175 feet from Interstate 215.

In regard to air quality hazards, TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As such, if a proposed project would not exacerbate pre-existing hazards (e.g., TAC health risks) then an analysis of those hazards and the proposed project's effect on increasing those hazards is not required. However, as the project is a residential project and will not be a source of toxic air contaminants, and the existing conditions on the project site does not contain any operational land uses that emit toxic air contaminants, the following health risk assessment was performed for informational and disclosure purposes only.

SCAQMD methodology states that health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of revised Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology¹. There currently is no SCAQMD TAC threshold for "existing" cancer risk to sensitive receptors. The SCAQMD TAC threshold of 10 in one million is defined as the "maximum incremental cancer risk." The City of Menifee General Plan EIR states that if the incremental cancer risk for any projects exceeds one in one hundred thousand (or 10 in one million), the appropriate noncancer hazard index exceeds 1.0, or if the PM₁₀ or PM_{2.5} ambient air quality standard increment exceeds 2.5 µg/m³, the HRA shall identify the level of high-efficiency Minimum Efficiency Reporting Value (MERV) filter required to reduce indoor air concentrations of pollutants to achieve the cancer and/or noncancer threshold. For this HRA analysis the City of Menifee MICR TAC threshold of 10 in one million will be used.

A health risk assessment requires the completion and interaction of four general steps:

1. Quantify project-generated TAC emissions.
2. Identify nearby ground-level receptor locations that may be affected by the emissions (including any special sensitive receptor locations such as residences, schools, hospitals, convalescent homes, and daycare centers).
3. Perform air dispersion modeling analyses to estimate ambient pollutant concentrations at each receptor location using project TAC emissions and representative meteorological data to define the transport and dispersion of those emissions in the atmosphere.

¹ In February 2015, the Office of Environmental Health Hazard Assessment updated their "Air Toxics Hot Spots Program, Risk Assessments Guidelines, Guidance Manual for Preparation of Health Risk Assessments; however, the updated OEHHA guidance states in the page footers "do not cite or quote." SCAQMD staff have incorporated the updates into their methodology for SCAQMD's Rules 1401, 1401.1, 1402, and 212, and have updated their HRA Guidance for permitting; however, they are still in the process of updating the guidance for CEQA analyses (via working group sessions); however, to be conservative, the new OEHHA guidance was used to assess HRA impacts in this analysis.

APPENDIX B-2

4. Characterize and compare the calculated health risks with the applicable health risk significance thresholds.

The ARB Air Quality and Land Use Handbook (ARB Handbook) provides an advisory recommendation to avoid the locating of new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The proposed residential uses are to be located approximately 175 feet from the Interstate 215 freeway. The California Department of Transportation vehicular counts show 2020 AADT numbers of 140,000 (back AADT) at the segment of McCall Boulevard to Newport Road with a total of 6,958 (4.97%) of those vehicles being trucks.

According to the SCAQMD's MATES V study, the project area has an estimated multi-pathway cancer risk of 289 in one million and an inhalation cancer risk of 272 in one million. In comparison the average multi-pathway cancer risk for the South Coast Air Basin is 455 in one million.² This cancer risk at the project site is largely due to the proximity to the Interstate 215 freeway.

To determine the potential health risk from freeway emissions sources to the future residents of the project site, a health risk estimate was performed.

A. Estimate of Emissions Factors

The DPM emission factors for the various vehicle types were derived from the CARB EMFAC2017 mobile source emission model for the South Coast Air Basin. Emission factors used for a 30-year exposure reflect years 2024 (opening year) to 2050 (the last available year of EMFAC data). The emissions factors used in this assessment are detailed in Table 1. It should be noted that the DPM emissions have declined beyond 2021 for all vehicle classes and in particular the heavy-heavy-duty truck class (the 4+ axle "big rig" trucks). This is due to the CARB emissions' requirements on heavy-duty trucks that call for either the replacement of older trucks with cleaner trucks or the installation of diesel particulate matter filters on the truck fleet.

Table 1: DPM Vehicular Emission Factors¹

Vehicle Type	MPH assumed for vehicle type	30-year (2024-2050) Average DPM Exhaust Emissions Factor(g/mi)
Light Duty Auto (LDA)	70	0.004866641
Light Duty Truck 1 (LDT1)	70	0.15635975
Light Duty Truck 2 (LDT2)	70	0.003946236
Medium Duty Truck (MDV)	60	0.003501279
Light-Heavy Duty Truck 1 (LHDT1)	60	0.016701606
Light-Heavy Duty Truck 2 (LHDT2)	60	0.016328798
Medium-Heavy Duty Truck (MHDT)	55	0.009981
Heavy-Heavy Duty Truck (HHDT)	55	0.023399

Notes:

(1) Source: EMFAC2017 for South Coast.

² Source: Mates V Final Report. Table 4-8

APPENDIX B-2

Emission Source Characterization

Each of the emission source types described above also requires geometrical and emission release specifications for use in the air dispersion model. Table 2 provides a summary of the assumptions used to configure the various emission sources. The following definitions are used to characterize the emission source geometrical configurations referred to in Table 2:

Line source: A series of volume sources along a path, for example, vehicular volumes along a roadway (shown as blue lines on Figure 3).

Figure 3 provides the location of the receptors (shown by orange triangles) and emission source locations, shown by the blue line along each direction of the freeway (as the emissions are calculated for both the northbound and southbound lanes of the freeway).

Figure 3
AERMOD Model Source and Receptor Placement

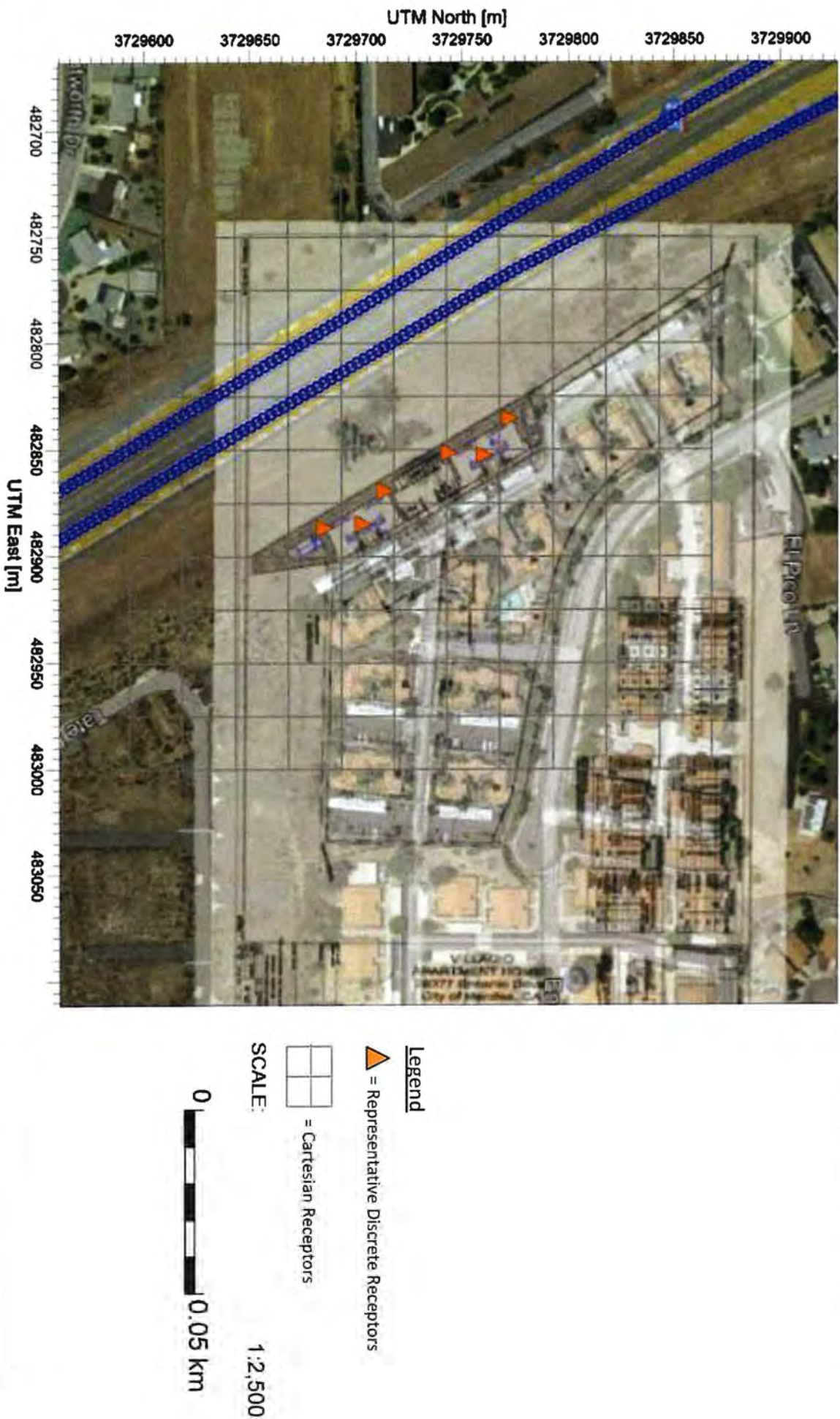


Table 2: Summary of Emission Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Off-Site Diesel Traffic	Line Sources	Plume height: 3.66 meters
		Vehicle speed: See Table 1
		Length of the line source (215 Freeway segment north of project site)
		Vehicle types: see Table 1
		Emission factor: CARB EMFAC2017

B. Receptor Network

The assessment requires that a network of receptors be specified where the impacts can be computed at the various locations. Receptors were located at the proposed sensitive receptor locations closest to the Interstate 215 Freeway (as detailed above). In addition, the identified sensitive receptor locations were supplemented by the specification of a modeling grid that extended around the proposed project to identify other potential locations of impact. The locations of the receptors are shown as orange triangles on Figure 3.

C. Dispersion Modeling

The next step in the assessment process utilizes the emissions inventory along with a mathematical air dispersion model and representative meteorological data to calculate impacts at the various receptor locations. The dispersion model used in this assessment is described below.

Model Selection

The assessment of air quality and health risk impacts from pollutant emissions from the freeway applied the USEPA AERMOD Model, which is the air dispersion model accepted by the SCAQMD for performing air quality impact analyses. AERMOD predicts pollutant concentrations from point, area, volume, line, and flare sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios.

General Model Assumptions

A summary of Emission Configurations is shown in Table 2. The basic options used in the dispersion modeling are summarized in Table 3.

Table 3: General Modeling Assumptions - AERMOD Model

Feature	Option Selected
Zone	11 North
Terrain processing	AERMAP NED GEOTIFF (30 m)
Emission source configuration	See Table 2
Regulatory dispersion options	Default
Land use	Urban ¹
Coordinate system	UTM
Receptor height	0 meters above ground ¹
Meteorological data	SCAQMD Perris

Notes:

(1) Per SCAQMD AERMOD guidance methodology, available at <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>

Meteorological Data

Meteorological data (processed with the ADJ_U option) from the Air District's Perris monitoring site was selected for this modeling application. Five full years of sequential meteorological data was collected at the site from January 1, 2012 to December 31, 2016 by the SCAQMD. The SCAQMD processed the data for input to the model. The data was obtained at SCAQMD's <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod>.

III. Estimation of Health Risks

Calculations for residential inhalation cancer risk were done using the Hotspots Analysis and Reporting Program (HARP). According to the *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, released by the Office of Environmental Health Hazard Assessment (OEHHA) in February 2015 and formally adopted in March 2015, the residential inhalation dose for cancer risk assessment should be calculated using the following formula:

$$[\text{Dose-air (mg)/(Kg-day)}] * \text{Cancer Potency} * [1 \times 10^{-6}] = \text{Potential Cancer Risk}$$

Where:

$$\text{Cancer Potency Factor} = 1.1$$

$$\text{Dose-inh} = (\text{C-air} * \text{DBR} * \text{A} * \text{EF} * \text{ED} * \text{ASF} * \text{FAH} * 10^{-6}) / \text{AT}$$

Where:

$$\text{Cair} [\text{Concentration in air } (\mu\text{g}/\text{m}^3)] = (\text{Calculated by AERMOD Model})$$

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DBR [Daily breathing rate (L/kg body weight – day)] = 261 for adults, 572 for children, and 1,090 for infants, and 361 for 3rd trimester per SCAQMD Permit Application Package "N" Table 4.1 D guidance.

A [Inhalation absorption factor] = 1

EF [Exposure frequency (days/year)] = 350

ED [Exposure duration (years)] = 30 for adults (for an individual who is an adult at opening year), 14 for children (from 2-16 years), 14 for adults (from 16-30 years), 2 for infants, and 1 for 3rd Trimester

ASF [Age sensitivity factor] = 10 for 3rd trimester to 2 years of age, 3 for 2 to 16 years of age, and 1 for 16 to 30 years of age

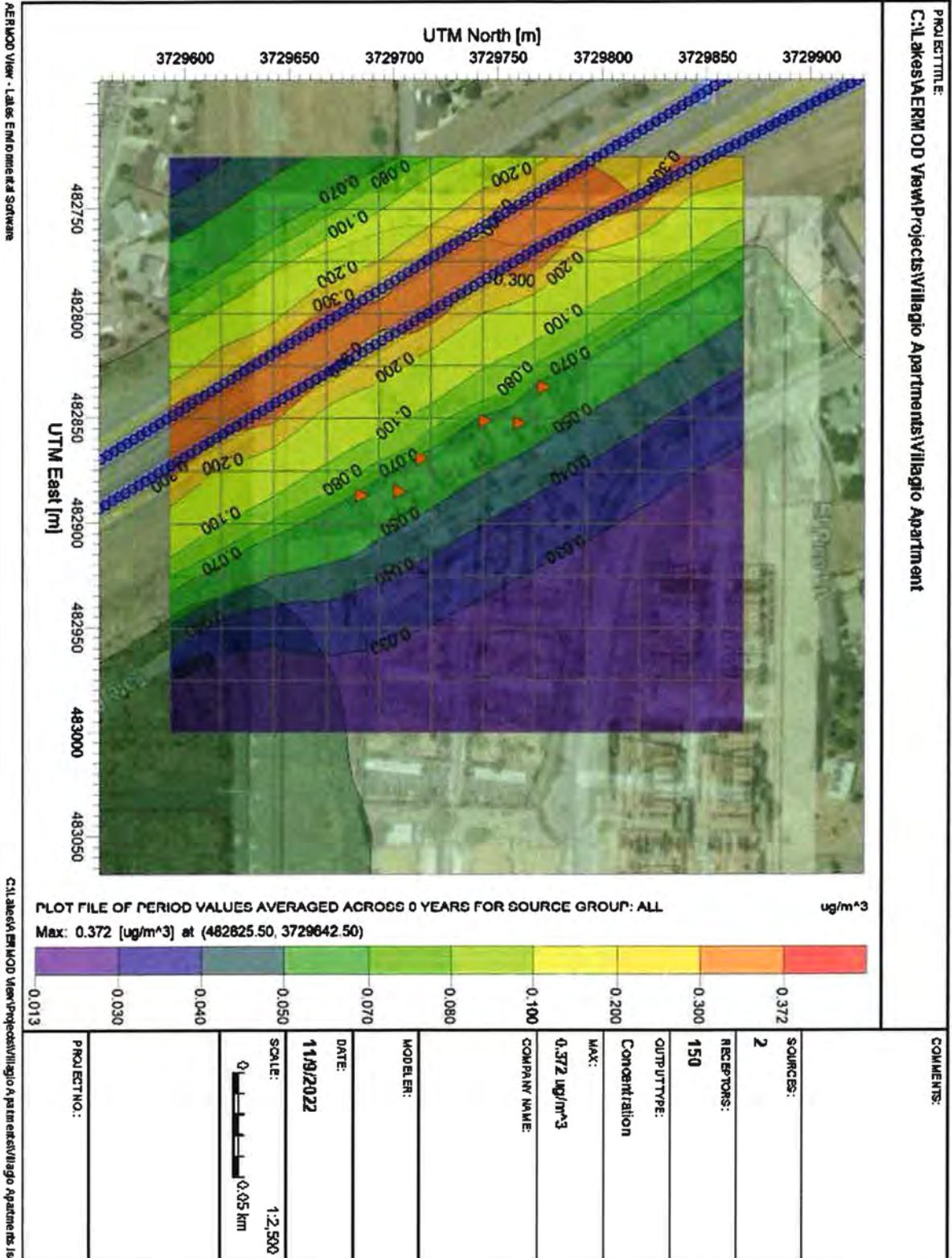
FAH [Fraction of time spent at home] = 1 for 3rd trimester to 2 years of age, 1 for 2 to 16 years of age, and 0.73 for 16 to 30 years of age

10^6 [Micrograms to milligrams conversion]

AT [Average time period over which exposure is averaged in days] = 25,550

The model run results are shown in Appendix C. Figure 4 illustrates the annual average cancer risk.

Figure 4
Modeled Study Area Annual DPM Emissions



AERMOD View - Lakes Environmental Software

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The assessment of cancer-related health risk to proposed sensitive receptors is based on the following most-conservative scenario:

A child is born opening year and then remains at home for the entire first two years of life. From age 2 to 16, the child remains at home 100 percent of the time. From age 16 to 30, the child continues to live at home, growing into an adult that spends 73 percent of its time at home and lives there until age 30.

Based on the above, ultra-conservative assumptions, the 30-year, cumulative carcinogenic health risk to an individual born during the opening year of the project, and located in the project vicinity for the entire 30-year duration, is a maximum of 57.66 in a million at receptor location 1, as shown in Table 4 per the SCAQMD Hot Spots Analysis and Reporting Program (HARP). Therefore, as the 30-year exposure cancer risk exceeds the SCAQMD MICR threshold of 10 in a million, mitigation is required.

Mitigation Measure 1 requires minimum efficiency reporting value (MERV) 13 filters would remove a substantial amount of particulates, including DPM. MERV 13 filters have a particle size removal efficiency rating of greater than 90 percent for particulates 3 micron to 10 microns in size and a rating of 85 percent for particles 1.0 to 3.0 micron in size.³ A MERV 13 filter creates more resistance to airflow because the filter media becomes denser as efficiency increases. The MERV filters do not remove gaseous pollutants; however. Therefore, indoor (interior) exposure to DPM (of particles greater than 1.0 micron) and consequently cancer risk would be reduced by 85 percent, to 8.65 in one million; less than the 10 in one million SCAQMD threshold. See Mitigation Measure 1 for full details and City of Menifee requirements. Outdoor levels would still present a risk level exceeding the SCAQMD threshold of 10 in one million.

Non-Cancer Risks

The relationship for non-cancer health effects is given by the equation:

$$\text{HIDPM} = \text{CDPM} / \text{RELDPM}$$

Where,

HIDPM = Hazard Index; an expression of the potential for non-cancer health effects.

CDPM = Annual average diesel particulate matter concentration in $\mu\text{g}/\text{m}^3$.

RELDPM = Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The non-carcinogenic hazards are also detailed in Table 4. The RELDPM is 5 $\mu\text{g}/\text{m}^3$. The Office of Environmental Health Hazard Assessment as protective for the respiratory system has established this concentration. Using the maximum DPM concentration, the resulting Hazard Index is:

$$\text{HIDPM} = 0.06665 / 5 = 0.01333$$

³ Source: <https://www.secondnature.com/blog/what-merv-rating-should-i-use>

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The criterion for significance is a Hazard Index increase of 1.0 or greater. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer risk from freeway-related diesel emissions to the proposed project.

Table 4: Cumulative Carcinogenic Risk, 30-Year Exposure Scenario

Receptor ID	Average Annual Concentration (ug/m3)	Unmitigated Cumulative RISK (per million)	Mitigated Cumulative RISK (per million)	Noncarcinogenic Hazards Index
1	0.06573	56.87	8.53	0.0131
2	0.06665	57.66	8.65	0.0133
3	0.06629	57.35	8.60	0.0133
4	0.0663	57.36	8.60	0.0133
5	0.05796	50.15	7.52	0.0116
6	0.05928	51.29	7.69	0.0119

IV. References

California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board

2008 Resolution 08-43

2008 Airborne Toxic Control Measure for in-use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, Section 2477 of Division 3, Chapter 9, Title 13, California Code of Regulations

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

Governor’s Office of Planning and Research

2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Office of Environmental Health Hazard Assessment

2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

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Appendices

Appendices

Appendix A – Glossary of Terms

Appendix B – AERMOD Model Printouts

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APPENDIX A

Glossary of Terms

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References

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
HUD	United States Department of Housing and Urban Development
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF	Square Feet
SF ₆	Sulfur hexafluoride

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References

SIP	State Implementation Plan
SOx	Sulfur Oxides
T6	Heavy Duty Trucks from EMFAC 2007 classifications
T7	Heavy-Heavy Duty Trucks from EMFAC 2007 classifications
TAC	Toxic air contaminants
VOC	Volatile organic compounds

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APPENDIX B

AERMOD Model Printouts

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```
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*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.1
** Lakes Environmental Software Inc.
** Date: 11/8/2022
** File: C:\Lakes\AERMOD View\Projects\Villagio Apartments\Villagio Apartments.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
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  MODELOPT DFAULT CONC
  AVERTIME 1 PERIOD
  POLLUTID DPM
  RUNORNOT RUN
  ERRORFIL "Villagio Apartments.err"
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = NB
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```

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** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 0.000327
** Vertical Dimension = 3.66
** SZINIT = 1.70
** Nodes = 3

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** 482768.633, 3729769.996, 450.03, 0.00, 1.70
** 482989.775, 3729394.152, 455.91, 0.00, 1.70

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LOCATION	L0021400	VOLUME	482967.281	3729432.382	455.22
LOCATION	L0021401	VOLUME	482969.135	3729429.229	455.30
LOCATION	L0021402	VOLUME	482970.990	3729426.077	455.41
LOCATION	L0021403	VOLUME	482972.845	3729422.925	455.53
LOCATION	L0021404	VOLUME	482974.700	3729419.772	455.70
LOCATION	L0021405	VOLUME	482976.555	3729416.620	455.83
LOCATION	L0021406	VOLUME	482978.410	3729413.467	455.87
LOCATION	L0021407	VOLUME	482980.264	3729410.315	455.91
LOCATION	L0021408	VOLUME	482982.119	3729407.163	455.94
LOCATION	L0021409	VOLUME	482983.974	3729404.010	455.96
LOCATION	L0021410	VOLUME	482985.829	3729400.858	455.96
LOCATION	L0021411	VOLUME	482987.684	3729397.705	455.96
LOCATION	L0021412	VOLUME	482989.539	3729394.553	455.94

** End of LINE VOLUME Source ID = NB

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SB

** DESCRSRC I-215 Southbound

** PREFIX

** Length of Side = 3.66

** Configuration = Adjacent

** Emission Rate = 0.000327

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 4

** 482621.071, 3729987.673, 443.20, 0.00, 1.70

** 482652.626, 3729918.195, 445.30, 0.00, 1.70

** 482653.897, 3729916.095, 445.40, 0.00, 1.70

** 482980.434, 3729376.551, 456.19, 0.00, 1.70

** -----

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LOCATION	L0021413	VOLUME	482621.827	3729986.008	443.44
LOCATION	L0021414	VOLUME	482623.340	3729982.678	443.51
LOCATION	L0021415	VOLUME	482624.852	3729979.348	443.60
LOCATION	L0021416	VOLUME	482626.365	3729976.018	443.70
LOCATION	L0021417	VOLUME	482627.877	3729972.687	443.82
LOCATION	L0021418	VOLUME	482629.390	3729969.357	443.90
LOCATION	L0021419	VOLUME	482630.902	3729966.027	443.98
LOCATION	L0021420	VOLUME	482632.414	3729962.697	444.07
LOCATION	L0021421	VOLUME	482633.927	3729959.366	444.17
LOCATION	L0021422	VOLUME	482635.439	3729956.036	444.29
LOCATION	L0021423	VOLUME	482636.952	3729952.706	444.42
LOCATION	L0021424	VOLUME	482638.464	3729949.376	444.57
LOCATION	L0021425	VOLUME	482639.977	3729946.045	444.66
LOCATION	L0021426	VOLUME	482641.489	3729942.715	444.73
LOCATION	L0021427	VOLUME	482643.002	3729939.385	444.78
LOCATION	L0021428	VOLUME	482644.514	3729936.055	444.80
LOCATION	L0021429	VOLUME	482646.027	3729932.725	444.83
LOCATION	L0021430	VOLUME	482647.539	3729929.394	444.87
LOCATION	L0021431	VOLUME	482649.052	3729926.064	444.93
LOCATION	L0021432	VOLUME	482650.564	3729922.734	445.00
LOCATION	L0021433	VOLUME	482652.077	3729919.404	445.08
LOCATION	L0021434	VOLUME	482653.832	3729916.201	445.19
LOCATION	L0021435	VOLUME	482655.726	3729913.072	445.32
LOCATION	L0021436	VOLUME	482657.620	3729909.943	445.46
LOCATION	L0021437	VOLUME	482659.514	3729906.814	445.59
LOCATION	L0021438	VOLUME	482661.407	3729903.685	445.71
LOCATION	L0021439	VOLUME	482663.301	3729900.556	445.83
LOCATION	L0021440	VOLUME	482665.195	3729897.427	445.91
LOCATION	L0021441	VOLUME	482667.089	3729894.297	445.96
LOCATION	L0021442	VOLUME	482668.983	3729891.168	446.02
LOCATION	L0021443	VOLUME	482670.876	3729888.039	446.08
LOCATION	L0021444	VOLUME	482672.770	3729884.910	446.17
LOCATION	L0021445	VOLUME	482674.664	3729881.781	446.26
LOCATION	L0021446	VOLUME	482676.558	3729878.652	446.37
LOCATION	L0021447	VOLUME	482678.451	3729875.523	446.52
LOCATION	L0021448	VOLUME	482680.345	3729872.393	446.65
LOCATION	L0021449	VOLUME	482682.239	3729869.264	446.77

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LOCATION	L0021450	VOLUME	482684.133	3729866.135	446.89
LOCATION	L0021451	VOLUME	482686.027	3729863.006	446.99
LOCATION	L0021452	VOLUME	482687.920	3729859.877	447.09
LOCATION	L0021453	VOLUME	482689.814	3729856.748	447.17
LOCATION	L0021454	VOLUME	482691.708	3729853.618	447.24
LOCATION	L0021455	VOLUME	482693.602	3729850.489	447.30
LOCATION	L0021456	VOLUME	482695.496	3729847.360	447.38
LOCATION	L0021457	VOLUME	482697.389	3729844.231	447.45
LOCATION	L0021458	VOLUME	482699.283	3729841.102	447.53
LOCATION	L0021459	VOLUME	482701.177	3729837.973	447.61
LOCATION	L0021460	VOLUME	482703.071	3729834.844	447.69
LOCATION	L0021461	VOLUME	482704.965	3729831.714	447.78
LOCATION	L0021462	VOLUME	482706.858	3729828.585	447.87
LOCATION	L0021463	VOLUME	482708.752	3729825.456	447.96
LOCATION	L0021464	VOLUME	482710.646	3729822.327	448.05
LOCATION	L0021465	VOLUME	482712.540	3729819.198	448.15
LOCATION	L0021466	VOLUME	482714.434	3729816.069	448.22
LOCATION	L0021467	VOLUME	482716.327	3729812.940	448.26
LOCATION	L0021468	VOLUME	482718.221	3729809.810	448.29
LOCATION	L0021469	VOLUME	482720.115	3729806.681	448.33
LOCATION	L0021470	VOLUME	482722.009	3729803.552	448.39
LOCATION	L0021471	VOLUME	482723.903	3729800.423	448.45
LOCATION	L0021472	VOLUME	482725.796	3729797.294	448.53
LOCATION	L0021473	VOLUME	482727.690	3729794.165	448.62
LOCATION	L0021474	VOLUME	482729.584	3729791.035	448.72
LOCATION	L0021475	VOLUME	482731.478	3729787.906	448.84
LOCATION	L0021476	VOLUME	482733.372	3729784.777	448.93
LOCATION	L0021477	VOLUME	482735.265	3729781.648	449.00
LOCATION	L0021478	VOLUME	482737.159	3729778.519	449.08
LOCATION	L0021479	VOLUME	482739.053	3729775.390	449.17
LOCATION	L0021480	VOLUME	482740.947	3729772.261	449.26
LOCATION	L0021481	VOLUME	482742.840	3729769.131	449.35
LOCATION	L0021482	VOLUME	482744.734	3729766.002	449.43
LOCATION	L0021483	VOLUME	482746.628	3729762.873	449.50
LOCATION	L0021484	VOLUME	482748.522	3729759.744	449.57
LOCATION	L0021485	VOLUME	482750.416	3729756.615	449.63
LOCATION	L0021486	VOLUME	482752.309	3729753.486	449.68

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LOCATION	L0021487	VOLUME	482754.203	3729750.356	449.73
LOCATION	L0021488	VOLUME	482756.097	3729747.227	449.79
LOCATION	L0021489	VOLUME	482757.991	3729744.098	449.86
LOCATION	L0021490	VOLUME	482759.885	3729740.969	449.94
LOCATION	L0021491	VOLUME	482761.778	3729737.840	450.03
LOCATION	L0021492	VOLUME	482763.672	3729734.711	450.13
LOCATION	L0021493	VOLUME	482765.566	3729731.582	450.24
LOCATION	L0021494	VOLUME	482767.460	3729728.452	450.35
LOCATION	L0021495	VOLUME	482769.354	3729725.323	450.41
LOCATION	L0021496	VOLUME	482771.247	3729722.194	450.44
LOCATION	L0021497	VOLUME	482773.141	3729719.065	450.47
LOCATION	L0021498	VOLUME	482775.035	3729715.936	450.52
LOCATION	L0021499	VOLUME	482776.929	3729712.807	450.57
LOCATION	L0021500	VOLUME	482778.823	3729709.678	450.63
LOCATION	L0021501	VOLUME	482780.716	3729706.548	450.70
LOCATION	L0021502	VOLUME	482782.610	3729703.419	450.77
LOCATION	L0021503	VOLUME	482784.504	3729700.290	450.86
LOCATION	L0021504	VOLUME	482786.398	3729697.161	450.95
LOCATION	L0021505	VOLUME	482788.292	3729694.032	451.04
LOCATION	L0021506	VOLUME	482790.185	3729690.903	451.11
LOCATION	L0021507	VOLUME	482792.079	3729687.773	451.19
LOCATION	L0021508	VOLUME	482793.973	3729684.644	451.23
LOCATION	L0021509	VOLUME	482795.867	3729681.515	451.25
LOCATION	L0021510	VOLUME	482797.761	3729678.386	451.28
LOCATION	L0021511	VOLUME	482799.654	3729675.257	451.33
LOCATION	L0021512	VOLUME	482801.548	3729672.128	451.38
LOCATION	L0021513	VOLUME	482803.442	3729668.999	451.45
LOCATION	L0021514	VOLUME	482805.336	3729665.869	451.53
LOCATION	L0021515	VOLUME	482807.229	3729662.740	451.61
LOCATION	L0021516	VOLUME	482809.123	3729659.611	451.64
LOCATION	L0021517	VOLUME	482811.017	3729656.482	451.70
LOCATION	L0021518	VOLUME	482812.911	3729653.353	451.77
LOCATION	L0021519	VOLUME	482814.805	3729650.224	451.86
LOCATION	L0021520	VOLUME	482816.698	3729647.095	451.97
LOCATION	L0021521	VOLUME	482818.592	3729643.965	452.10
LOCATION	L0021522	VOLUME	482820.486	3729640.836	452.14
LOCATION	L0021523	VOLUME	482822.380	3729637.707	452.18

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LOCATION	L0021524	VOLUME	482824.274	3729634.578	452.25
LOCATION	L0021525	VOLUME	482826.167	3729631.449	452.29
LOCATION	L0021526	VOLUME	482828.061	3729628.320	452.29
LOCATION	L0021527	VOLUME	482829.955	3729625.190	452.31
LOCATION	L0021528	VOLUME	482831.849	3729622.061	452.34
LOCATION	L0021529	VOLUME	482833.743	3729618.932	452.40
LOCATION	L0021530	VOLUME	482835.636	3729615.803	452.47
LOCATION	L0021531	VOLUME	482837.530	3729612.674	452.56
LOCATION	L0021532	VOLUME	482839.424	3729609.545	452.67
LOCATION	L0021533	VOLUME	482841.318	3729606.416	452.80
LOCATION	L0021534	VOLUME	482843.212	3729603.286	452.94
LOCATION	L0021535	VOLUME	482845.105	3729600.157	453.01
LOCATION	L0021536	VOLUME	482846.999	3729597.028	452.99
LOCATION	L0021537	VOLUME	482848.893	3729593.899	452.99
LOCATION	L0021538	VOLUME	482850.787	3729590.770	453.00
LOCATION	L0021539	VOLUME	482852.681	3729587.641	453.03
LOCATION	L0021540	VOLUME	482854.574	3729584.512	453.07
LOCATION	L0021541	VOLUME	482856.468	3729581.382	453.13
LOCATION	L0021542	VOLUME	482858.362	3729578.253	453.21
LOCATION	L0021543	VOLUME	482860.256	3729575.124	453.30
LOCATION	L0021544	VOLUME	482862.149	3729571.995	453.41
LOCATION	L0021545	VOLUME	482864.043	3729568.866	453.47
LOCATION	L0021546	VOLUME	482865.937	3729565.737	453.52
LOCATION	L0021547	VOLUME	482867.831	3729562.607	453.61
LOCATION	L0021548	VOLUME	482869.725	3729559.478	453.72
LOCATION	L0021549	VOLUME	482871.618	3729556.349	453.71
LOCATION	L0021550	VOLUME	482873.512	3729553.220	453.72
LOCATION	L0021551	VOLUME	482875.406	3729550.091	453.75
LOCATION	L0021552	VOLUME	482877.300	3729546.962	453.79
LOCATION	L0021553	VOLUME	482879.194	3729543.833	453.85
LOCATION	L0021554	VOLUME	482881.087	3729540.703	453.93
LOCATION	L0021555	VOLUME	482882.981	3729537.574	453.95
LOCATION	L0021556	VOLUME	482884.875	3729534.445	453.96
LOCATION	L0021557	VOLUME	482886.769	3729531.316	454.00
LOCATION	L0021558	VOLUME	482888.663	3729528.187	454.05
LOCATION	L0021559	VOLUME	482890.556	3729525.058	454.13
LOCATION	L0021560	VOLUME	482892.450	3729521.929	454.22

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LOCATION	L0021561	VOLUME	482894.344	3729518.799	454.34
LOCATION	L0021562	VOLUME	482896.238	3729515.670	454.42
LOCATION	L0021563	VOLUME	482898.132	3729512.541	454.43
LOCATION	L0021564	VOLUME	482900.025	3729509.412	454.47
LOCATION	L0021565	VOLUME	482901.919	3729506.283	454.45
LOCATION	L0021566	VOLUME	482903.813	3729503.154	454.44
LOCATION	L0021567	VOLUME	482905.707	3729500.024	454.45
LOCATION	L0021568	VOLUME	482907.601	3729496.895	454.48
LOCATION	L0021569	VOLUME	482909.494	3729493.766	454.53
LOCATION	L0021570	VOLUME	482911.388	3729490.637	454.60
LOCATION	L0021571	VOLUME	482913.282	3729487.508	454.69
LOCATION	L0021572	VOLUME	482915.176	3729484.379	454.79
LOCATION	L0021573	VOLUME	482917.070	3729481.250	454.92
LOCATION	L0021574	VOLUME	482918.963	3729478.120	455.05
LOCATION	L0021575	VOLUME	482920.857	3729474.991	455.12
LOCATION	L0021576	VOLUME	482922.751	3729471.862	455.08
LOCATION	L0021577	VOLUME	482924.645	3729468.733	455.04
LOCATION	L0021578	VOLUME	482926.538	3729465.604	455.03
LOCATION	L0021579	VOLUME	482928.432	3729462.475	455.04
LOCATION	L0021580	VOLUME	482930.326	3729459.345	455.07
LOCATION	L0021581	VOLUME	482932.220	3729456.216	455.12
LOCATION	L0021582	VOLUME	482934.114	3729453.087	455.20
LOCATION	L0021583	VOLUME	482936.007	3729449.958	455.31
LOCATION	L0021584	VOLUME	482937.901	3729446.829	455.40
LOCATION	L0021585	VOLUME	482939.795	3729443.700	455.42
LOCATION	L0021586	VOLUME	482941.689	3729440.571	455.46
LOCATION	L0021587	VOLUME	482943.583	3729437.441	455.51
LOCATION	L0021588	VOLUME	482945.476	3729434.312	455.59
LOCATION	L0021589	VOLUME	482947.370	3729431.183	455.66
LOCATION	L0021590	VOLUME	482949.264	3729428.054	455.65
LOCATION	L0021591	VOLUME	482951.158	3729424.925	455.65
LOCATION	L0021592	VOLUME	482953.052	3729421.796	455.68
LOCATION	L0021593	VOLUME	482954.945	3729418.667	455.73
LOCATION	L0021594	VOLUME	482956.839	3729415.537	455.74
LOCATION	L0021595	VOLUME	482958.733	3729412.408	455.71
LOCATION	L0021596	VOLUME	482960.627	3729409.279	455.70
LOCATION	L0021597	VOLUME	482962.521	3729406.150	455.72

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LOCATION	L0021598	VOLUME	482964.414	3729403.021	455.77
LOCATION	L0021599	VOLUME	482966.308	3729399.892	455.84
LOCATION	L0021600	VOLUME	482968.202	3729396.762	455.95
LOCATION	L0021601	VOLUME	482970.096	3729393.633	456.08
LOCATION	L0021602	VOLUME	482971.990	3729390.504	456.23
LOCATION	L0021603	VOLUME	482973.883	3729387.375	456.29
LOCATION	L0021604	VOLUME	482975.777	3729384.246	456.25
LOCATION	L0021605	VOLUME	482977.671	3729381.117	456.17
LOCATION	L0021606	VOLUME	482979.565	3729377.988	456.13
** End of LINE VOLUME Source ID = SB					
** Source Parameters **					
** LINE VOLUME Source ID = NB					
SRCPARAM	L0021220	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021221	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021222	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021223	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021224	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021225	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021226	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021227	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021228	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021229	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021230	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021231	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021232	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021233	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021234	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021235	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021236	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021237	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021238	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021239	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021240	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021241	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021242	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021243	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021244	0.000001694	0.00	1.70	1.70

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SRCPARAM	L0021245	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021246	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021247	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021248	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021249	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021250	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021251	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021252	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021253	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021254	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021255	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021256	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021257	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021258	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021259	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021260	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021261	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021262	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021263	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021264	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021265	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021266	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021267	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021268	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021269	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021270	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021271	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021272	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021273	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021274	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021275	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021276	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021277	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021278	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021279	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021280	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021281	0.000001694	0.00	1.70	1.70

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SRCPARAM	L0021282	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021283	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021284	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021285	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021286	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021287	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021288	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021289	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021290	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021291	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021292	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021293	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021294	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021295	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021296	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021297	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021298	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021299	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021300	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021301	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021302	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021303	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021304	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021305	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021306	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021307	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021308	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021309	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021310	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021311	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021312	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021313	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021314	0.000001694	0.00	1.70	1.70
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SRCPARAM	L0021316	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021317	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021318	0.000001694	0.00	1.70	1.70

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SRCPARAM	L0021319	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021320	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021321	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021322	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021323	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021324	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021325	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021326	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021327	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021328	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021329	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021330	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021331	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021332	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021333	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021334	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021335	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021336	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021337	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021338	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021339	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021340	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021341	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021342	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021343	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021344	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021345	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021346	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021347	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021348	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021349	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021350	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021351	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021352	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021353	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021354	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021355	0.000001694	0.00	1.70	1.70

APPENDIX B-2

SRCPARAM	L0021356	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021357	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021358	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021359	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021360	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021361	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021362	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021363	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021364	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021365	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021366	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021367	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021368	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021369	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021370	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021371	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021372	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021373	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021374	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021375	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021376	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021377	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021378	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021379	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021380	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021381	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021382	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021383	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021384	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021385	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021386	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021387	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021388	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021389	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021390	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021391	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021392	0.000001694	0.00	1.70	1.70

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SRCPARAM	L0021393	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021394	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021395	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021396	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021397	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021398	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021399	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021400	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021401	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021402	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021403	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021404	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021405	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021406	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021407	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021408	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021409	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021410	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021411	0.000001694	0.00	1.70	1.70
SRCPARAM	L0021412	0.000001694	0.00	1.70	1.70
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** LINE VOLUME Source ID = SB					
SRCPARAM	L0021413	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021414	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021415	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021416	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021417	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021418	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021419	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021420	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021421	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021422	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021423	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021424	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021425	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021426	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021427	0.000001686	0.00	1.70	1.70

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SRCPARAM	L0021428	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021429	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021430	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021431	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021432	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021433	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021434	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021435	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021436	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021437	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021438	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021439	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021440	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021441	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021442	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021443	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021444	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021445	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021446	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021447	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021448	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021449	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021450	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021451	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021452	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021453	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021454	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021455	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021456	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021457	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021458	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021459	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021460	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021461	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021462	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021463	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021464	0.000001686	0.00	1.70	1.70

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SRCPARAM	L0021465	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021466	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021467	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021468	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021469	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021470	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021471	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021472	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021473	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021474	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021475	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021476	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021477	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021478	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021479	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021480	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021481	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021482	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021483	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021484	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021485	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021486	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021487	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021488	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021489	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021490	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021491	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021492	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021493	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021494	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021495	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021496	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021497	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021498	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021499	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021500	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021501	0.000001686	0.00	1.70	1.70

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SRCPARAM	L0021502	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021503	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021504	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021505	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021506	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021507	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021508	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021509	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021510	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021511	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021512	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021513	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021514	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021515	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021516	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021517	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021518	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021519	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021520	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021521	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021522	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021523	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021524	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021525	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021526	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021527	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021528	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021529	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021530	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021531	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021532	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021533	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021534	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021535	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021536	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021537	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021538	0.000001686	0.00	1.70	1.70

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SRCPARAM	L0021539	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021540	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021541	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021542	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021543	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021544	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021545	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021546	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021547	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021548	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021549	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021550	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021551	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021552	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021553	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021554	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021555	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021556	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021557	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021558	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021559	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021560	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021561	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021562	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021563	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021564	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021565	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021566	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021567	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021568	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021569	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021570	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021571	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021572	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021573	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021574	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021575	0.000001686	0.00	1.70	1.70

APPENDIX B-2

SRCPARAM	L0021576	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021577	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021578	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021579	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021580	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021581	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021582	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021583	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021584	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021585	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021586	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021587	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021588	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021589	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021590	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021591	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021592	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021593	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021594	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021595	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021596	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021597	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021598	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021599	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021600	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021601	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021602	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021603	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021604	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021605	0.000001686	0.00	1.70	1.70
SRCPARAM	L0021606	0.000001686	0.00	1.70	1.70

** -----
 SRCGROUP ALL
 SO FINISHED
 **

 ** AERMOD Receptor Pathway

APPENDIX B-2

```
*****
**
**
RE STARTING
  INCLUDED "Villagio Apartments.rou"
RE FINISHED
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE PerrisADJU\PERI_V9_ADJU\PERI_v9.SFC
  PROFFILE PerrisADJU\PERI_V9_ADJU\PERI_v9.PFL
  SURFDATA 3171 2010
  UAIRDATA 3190 2010
  SITEDATA 99999 2010
  PROFBASE 34.8 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST "Villagio Apartments.AD\01H1GALL.PLT" 31
  PLOTFILE PERIOD ALL "Villagio Apartments.AD\PE00GALL.PLT" 32
  SUMMFILE "Villagio Apartments.sum"
OU FINISHED
```

*** Message Summary For AERMOD Model Setup ***

APPENDIX B-2

----- Summary of Total Messages -----

A Total of	0 Fatal Error Message(s)
A Total of	2 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
ME W186 871 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50
ME W187 871 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** SETUP Finishes Successfully ***

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```
*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment *** 11/08/22
*** AERMET - VERSION 16216 *** ***
*** 13:34:24
```

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```
*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*
```

```
*** MODEL SETUP OPTIONS SUMMARY ***
```

```
- - - - -
```

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

ADJ_U* - Use ADJ_U* option for SBL in AERMET

CCVR_Sub - Meteorological data includes CCVR substitutions

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

APPENDIX B-2

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 387 Source(s); 1 Source Group(s); and 150 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 387 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 16216

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing

Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 34.80 ; Decay Coef. =
0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate
Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

APPENDIX B-2

**Approximate Storage Requirements of Model = 3.7 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: Villagio Apartments.err

**File for Summary of Results: Villagio Apartments.sum

APPENDIX B-2

```

*** AERMOD - VERSION 21112 ***    *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***          11/08/22
*** AERMET - VERSION 16216 ***    ***
***          13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY			(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
ID	CATS.								
L0021220	0	0.16940E-05	482644.9	3730006.2	442.8	0.00	1.70	1.70	
NO									
L0021221	0	0.16940E-05	482646.6	3730003.0	442.9	0.00	1.70	1.70	
NO									
L0021222	0	0.16940E-05	482648.3	3729999.7	442.9	0.00	1.70	1.70	
NO									
L0021223	0	0.16940E-05	482650.0	3729996.5	443.0	0.00	1.70	1.70	
NO									
L0021224	0	0.16940E-05	482651.7	3729993.2	443.1	0.00	1.70	1.70	
NO									
L0021225	0	0.16940E-05	482653.4	3729990.0	443.2	0.00	1.70	1.70	
NO									
L0021226	0	0.16940E-05	482655.1	3729986.8	443.2	0.00	1.70	1.70	
NO									
L0021227	0	0.16940E-05	482656.8	3729983.5	443.3	0.00	1.70	1.70	
NO									
L0021228	0	0.16940E-05	482658.5	3729980.3	443.4	0.00	1.70	1.70	

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NO								
L0021229	0	0.16940E-05	482660.2	3729977.0	443.5	0.00	1.70	1.70
NO								
L0021230	0	0.16940E-05	482661.9	3729973.8	443.6	0.00	1.70	1.70
NO								
L0021231	0	0.16940E-05	482663.6	3729970.6	443.7	0.00	1.70	1.70
NO								
L0021232	0	0.16940E-05	482665.3	3729967.3	443.9	0.00	1.70	1.70
NO								
L0021233	0	0.16940E-05	482667.0	3729964.1	444.0	0.00	1.70	1.70
NO								
L0021234	0	0.16940E-05	482668.7	3729960.8	444.2	0.00	1.70	1.70
NO								
L0021235	0	0.16940E-05	482670.4	3729957.6	444.3	0.00	1.70	1.70
NO								
L0021236	0	0.16940E-05	482672.1	3729954.4	444.5	0.00	1.70	1.70
NO								
L0021237	0	0.16940E-05	482673.8	3729951.1	444.6	0.00	1.70	1.70
NO								
L0021238	0	0.16940E-05	482675.5	3729947.9	444.8	0.00	1.70	1.70
NO								
L0021239	0	0.16940E-05	482677.2	3729944.6	444.9	0.00	1.70	1.70
NO								
L0021240	0	0.16940E-05	482678.8	3729941.4	445.0	0.00	1.70	1.70
NO								
L0021241	0	0.16940E-05	482680.5	3729938.2	445.1	0.00	1.70	1.70
NO								
L0021242	0	0.16940E-05	482682.2	3729934.9	445.2	0.00	1.70	1.70
NO								
L0021243	0	0.16940E-05	482683.9	3729931.7	445.3	0.00	1.70	1.70
NO								
L0021244	0	0.16940E-05	482685.6	3729928.4	445.3	0.00	1.70	1.70
NO								
L0021245	0	0.16940E-05	482687.3	3729925.2	445.4	0.00	1.70	1.70
NO								
L0021246	0	0.16940E-05	482689.0	3729922.0	445.5	0.00	1.70	1.70
NO								

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L0021247	0	0.16940E-05	482690.7	3729918.7	445.6	0.00	1.70	1.70
NO								
L0021248	0	0.16940E-05	482692.4	3729915.5	445.7	0.00	1.70	1.70
NO								
L0021249	0	0.16940E-05	482694.1	3729912.2	445.9	0.00	1.70	1.70
NO								
L0021250	0	0.16940E-05	482695.8	3729909.0	446.0	0.00	1.70	1.70
NO								
L0021251	0	0.16940E-05	482697.5	3729905.8	446.2	0.00	1.70	1.70
NO								
L0021252	0	0.16940E-05	482699.2	3729902.5	446.3	0.00	1.70	1.70
NO								
L0021253	0	0.16940E-05	482700.9	3729899.3	446.3	0.00	1.70	1.70
NO								
L0021254	0	0.16940E-05	482702.6	3729896.0	446.4	0.00	1.70	1.70
NO								
L0021255	0	0.16940E-05	482704.3	3729892.8	446.4	0.00	1.70	1.70
NO								
L0021256	0	0.16940E-05	482706.0	3729889.6	446.5	0.00	1.70	1.70
NO								
L0021257	0	0.16940E-05	482707.7	3729886.3	446.5	0.00	1.70	1.70
NO								
L0021258	0	0.16940E-05	482709.4	3729883.1	446.4	0.00	1.70	1.70
NO								
L0021259	0	0.16940E-05	482711.1	3729879.8	446.4	0.00	1.70	1.70
NO								

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE	SCALAR VARY								
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021260	0	0.16940E-05	482712.8	3729876.6	446.4	0.00	1.70	1.70	
NO									
L0021261	0	0.16940E-05	482714.5	3729873.4	446.5	0.00	1.70	1.70	
NO									
L0021262	0	0.16940E-05	482716.2	3729870.1	446.6	0.00	1.70	1.70	
NO									
L0021263	0	0.16940E-05	482717.9	3729866.9	446.8	0.00	1.70	1.70	
NO									
L0021264	0	0.16940E-05	482719.6	3729863.6	446.9	0.00	1.70	1.70	
NO									
L0021265	0	0.16940E-05	482721.3	3729860.4	447.1	0.00	1.70	1.70	
NO									
L0021266	0	0.16940E-05	482723.0	3729857.2	447.1	0.00	1.70	1.70	
NO									
L0021267	0	0.16940E-05	482724.7	3729853.9	447.2	0.00	1.70	1.70	
NO									
L0021268	0	0.16940E-05	482726.4	3729850.7	447.2	0.00	1.70	1.70	

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NO								
L0021269	0	0.16940E-05	482728.1	3729847.4	447.3	0.00	1.70	1.70
NO								
L0021270	0	0.16940E-05	482729.8	3729844.2	447.3	0.00	1.70	1.70
NO								
L0021271	0	0.16940E-05	482731.5	3729841.0	447.4	0.00	1.70	1.70
NO								
L0021272	0	0.16940E-05	482733.2	3729837.7	447.5	0.00	1.70	1.70
NO								
L0021273	0	0.16940E-05	482734.9	3729834.5	447.6	0.00	1.70	1.70
NO								
L0021274	0	0.16940E-05	482736.6	3729831.2	447.7	0.00	1.70	1.70
NO								
L0021275	0	0.16940E-05	482738.2	3729828.0	447.8	0.00	1.70	1.70
NO								
L0021276	0	0.16940E-05	482739.9	3729824.8	447.9	0.00	1.70	1.70
NO								
L0021277	0	0.16940E-05	482741.6	3729821.5	448.0	0.00	1.70	1.70
NO								
L0021278	0	0.16940E-05	482743.3	3729818.3	448.2	0.00	1.70	1.70
NO								
L0021279	0	0.16940E-05	482745.0	3729815.0	448.3	0.00	1.70	1.70
NO								
L0021280	0	0.16940E-05	482746.7	3729811.8	448.5	0.00	1.70	1.70
NO								
L0021281	0	0.16940E-05	482748.4	3729808.6	448.7	0.00	1.70	1.70
NO								
L0021282	0	0.16940E-05	482750.1	3729805.3	448.8	0.00	1.70	1.70
NO								
L0021283	0	0.16940E-05	482751.8	3729802.1	449.0	0.00	1.70	1.70
NO								
L0021284	0	0.16940E-05	482753.5	3729798.8	449.1	0.00	1.70	1.70
NO								
L0021285	0	0.16940E-05	482755.2	3729795.6	449.3	0.00	1.70	1.70
NO								
L0021286	0	0.16940E-05	482756.9	3729792.4	449.4	0.00	1.70	1.70
NO								

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L0021287	0	0.16940E-05	482758.6	3729789.1	449.6	0.00	1.70	1.70
NO								
L0021288	0	0.16940E-05	482760.3	3729785.9	449.7	0.00	1.70	1.70
NO								
L0021289	0	0.16940E-05	482762.0	3729782.6	449.8	0.00	1.70	1.70
NO								
L0021290	0	0.16940E-05	482763.7	3729779.4	449.8	0.00	1.70	1.70
NO								
L0021291	0	0.16940E-05	482765.4	3729776.2	449.9	0.00	1.70	1.70
NO								
L0021292	0	0.16940E-05	482767.1	3729772.9	449.9	0.00	1.70	1.70
NO								
L0021293	0	0.16940E-05	482768.8	3729769.7	450.0	0.00	1.70	1.70
NO								
L0021294	0	0.16940E-05	482770.7	3729766.5	450.1	0.00	1.70	1.70
NO								
L0021295	0	0.16940E-05	482772.5	3729763.4	450.1	0.00	1.70	1.70
NO								
L0021296	0	0.16940E-05	482774.4	3729760.2	450.2	0.00	1.70	1.70
NO								
L0021297	0	0.16940E-05	482776.2	3729757.1	450.2	0.00	1.70	1.70
NO								
L0021298	0	0.16940E-05	482778.1	3729753.9	450.2	0.00	1.70	1.70
NO								
L0021299	0	0.16940E-05	482779.9	3729750.8	450.3	0.00	1.70	1.70
NO								

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021300	0	0.16940E-05	482781.8	3729747.6	450.4	0.00	1.70	1.70	
NO									
L0021301	0	0.16940E-05	482783.7	3729744.5	450.4	0.00	1.70	1.70	
NO									
L0021302	0	0.16940E-05	482785.5	3729741.3	450.5	0.00	1.70	1.70	
NO									
L0021303	0	0.16940E-05	482787.4	3729738.2	450.5	0.00	1.70	1.70	
NO									
L0021304	0	0.16940E-05	482789.2	3729735.0	450.6	0.00	1.70	1.70	
NO									
L0021305	0	0.16940E-05	482791.1	3729731.9	450.6	0.00	1.70	1.70	
NO									
L0021306	0	0.16940E-05	482792.9	3729728.7	450.6	0.00	1.70	1.70	
NO									
L0021307	0	0.16940E-05	482794.8	3729725.6	450.7	0.00	1.70	1.70	
NO									
L0021308	0	0.16940E-05	482796.6	3729722.4	450.7	0.00	1.70	1.70	

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NO								
L0021309	0	0.16940E-05	482798.5	3729719.2	450.8	0.00	1.70	1.70
NO								
L0021310	0	0.16940E-05	482800.3	3729716.1	450.8	0.00	1.70	1.70
NO								
L0021311	0	0.16940E-05	482802.2	3729712.9	450.9	0.00	1.70	1.70
NO								
L0021312	0	0.16940E-05	482804.1	3729709.8	450.9	0.00	1.70	1.70
NO								
L0021313	0	0.16940E-05	482805.9	3729706.6	450.9	0.00	1.70	1.70
NO								
L0021314	0	0.16940E-05	482807.8	3729703.5	450.9	0.00	1.70	1.70
NO								
L0021315	0	0.16940E-05	482809.6	3729700.3	450.9	0.00	1.70	1.70
NO								
L0021316	0	0.16940E-05	482811.5	3729697.2	450.9	0.00	1.70	1.70
NO								
L0021317	0	0.16940E-05	482813.3	3729694.0	450.9	0.00	1.70	1.70
NO								
L0021318	0	0.16940E-05	482815.2	3729690.9	451.0	0.00	1.70	1.70
NO								
L0021319	0	0.16940E-05	482817.0	3729687.7	451.1	0.00	1.70	1.70
NO								
L0021320	0	0.16940E-05	482818.9	3729684.6	451.2	0.00	1.70	1.70
NO								
L0021321	0	0.16940E-05	482820.7	3729681.4	451.2	0.00	1.70	1.70
NO								
L0021322	0	0.16940E-05	482822.6	3729678.3	451.3	0.00	1.70	1.70
NO								
L0021323	0	0.16940E-05	482824.5	3729675.1	451.3	0.00	1.70	1.70
NO								
L0021324	0	0.16940E-05	482826.3	3729672.0	451.3	0.00	1.70	1.70
NO								
L0021325	0	0.16940E-05	482828.2	3729668.8	451.4	0.00	1.70	1.70
NO								
L0021326	0	0.16940E-05	482830.0	3729665.7	451.4	0.00	1.70	1.70
NO								

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L0021327	0	0.16940E-05	482831.9	3729662.5	451.4	0.00	1.70	1.70
NO								
L0021328	0	0.16940E-05	482833.7	3729659.4	451.4	0.00	1.70	1.70
NO								
L0021329	0	0.16940E-05	482835.6	3729656.2	451.5	0.00	1.70	1.70
NO								
L0021330	0	0.16940E-05	482837.4	3729653.0	451.6	0.00	1.70	1.70
NO								
L0021331	0	0.16940E-05	482839.3	3729649.9	451.6	0.00	1.70	1.70
NO								
L0021332	0	0.16940E-05	482841.2	3729646.7	451.7	0.00	1.70	1.70
NO								
L0021333	0	0.16940E-05	482843.0	3729643.6	451.9	0.00	1.70	1.70
NO								
L0021334	0	0.16940E-05	482844.9	3729640.4	452.0	0.00	1.70	1.70
NO								
L0021335	0	0.16940E-05	482846.7	3729637.3	452.1	0.00	1.70	1.70
NO								
L0021336	0	0.16940E-05	482848.6	3729634.1	452.1	0.00	1.70	1.70
NO								
L0021337	0	0.16940E-05	482850.4	3729631.0	452.1	0.00	1.70	1.70
NO								
L0021338	0	0.16940E-05	482852.3	3729627.8	452.1	0.00	1.70	1.70
NO								
L0021339	0	0.16940E-05	482854.1	3729624.7	452.2	0.00	1.70	1.70
NO								

APPENDIX B-2

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021340	0	0.16940E-05	482856.0	3729621.5	452.2	0.00	1.70	1.70	
NO									
L0021341	0	0.16940E-05	482857.8	3729618.4	452.3	0.00	1.70	1.70	
NO									
L0021342	0	0.16940E-05	482859.7	3729615.2	452.3	0.00	1.70	1.70	
NO									
L0021343	0	0.16940E-05	482861.6	3729612.1	452.4	0.00	1.70	1.70	
NO									
L0021344	0	0.16940E-05	482863.4	3729608.9	452.5	0.00	1.70	1.70	
NO									
L0021345	0	0.16940E-05	482865.3	3729605.8	452.6	0.00	1.70	1.70	
NO									
L0021346	0	0.16940E-05	482867.1	3729602.6	452.7	0.00	1.70	1.70	
NO									
L0021347	0	0.16940E-05	482869.0	3729599.5	452.8	0.00	1.70	1.70	
NO									
L0021348	0	0.16940E-05	482870.8	3729596.3	452.8	0.00	1.70	1.70	

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NO								
L0021349	0	0.16940E-05	482872.7	3729593.2	452.9	0.00	1.70	1.70
NO								
L0021350	0	0.16940E-05	482874.5	3729590.0	452.9	0.00	1.70	1.70
NO								
L0021351	0	0.16940E-05	482876.4	3729586.8	452.9	0.00	1.70	1.70
NO								
L0021352	0	0.16940E-05	482878.2	3729583.7	452.9	0.00	1.70	1.70
NO								
L0021353	0	0.16940E-05	482880.1	3729580.5	452.9	0.00	1.70	1.70
NO								
L0021354	0	0.16940E-05	482882.0	3729577.4	453.0	0.00	1.70	1.70
NO								
L0021355	0	0.16940E-05	482883.8	3729574.2	453.0	0.00	1.70	1.70
NO								
L0021356	0	0.16940E-05	482885.7	3729571.1	453.0	0.00	1.70	1.70
NO								
L0021357	0	0.16940E-05	482887.5	3729567.9	453.0	0.00	1.70	1.70
NO								
L0021358	0	0.16940E-05	482889.4	3729564.8	453.1	0.00	1.70	1.70
NO								
L0021359	0	0.16940E-05	482891.2	3729561.6	453.2	0.00	1.70	1.70
NO								
L0021360	0	0.16940E-05	482893.1	3729558.5	453.2	0.00	1.70	1.70
NO								
L0021361	0	0.16940E-05	482894.9	3729555.3	453.4	0.00	1.70	1.70
NO								
L0021362	0	0.16940E-05	482896.8	3729552.2	453.4	0.00	1.70	1.70
NO								
L0021363	0	0.16940E-05	482898.7	3729549.0	453.4	0.00	1.70	1.70
NO								
L0021364	0	0.16940E-05	482900.5	3729545.9	453.5	0.00	1.70	1.70
NO								
L0021365	0	0.16940E-05	482902.4	3729542.7	453.4	0.00	1.70	1.70
NO								
L0021366	0	0.16940E-05	482904.2	3729539.6	453.4	0.00	1.70	1.70
NO								

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L0021367	0	0.16940E-05	482906.1	3729536.4	453.4	0.00	1.70	1.70
NO								
L0021368	0	0.16940E-05	482907.9	3729533.3	453.4	0.00	1.70	1.70
NO								
L0021369	0	0.16940E-05	482909.8	3729530.1	453.4	0.00	1.70	1.70
NO								
L0021370	0	0.16940E-05	482911.6	3729527.0	453.5	0.00	1.70	1.70
NO								
L0021371	0	0.16940E-05	482913.5	3729523.8	453.6	0.00	1.70	1.70
NO								
L0021372	0	0.16940E-05	482915.3	3729520.6	453.7	0.00	1.70	1.70
NO								
L0021373	0	0.16940E-05	482917.2	3729517.5	453.8	0.00	1.70	1.70
NO								
L0021374	0	0.16940E-05	482919.1	3729514.3	453.9	0.00	1.70	1.70
NO								
L0021375	0	0.16940E-05	482920.9	3729511.2	454.1	0.00	1.70	1.70
NO								
L0021376	0	0.16940E-05	482922.8	3729508.0	454.1	0.00	1.70	1.70
NO								
L0021377	0	0.16940E-05	482924.6	3729504.9	454.1	0.00	1.70	1.70
NO								
L0021378	0	0.16940E-05	482926.5	3729501.7	454.1	0.00	1.70	1.70
NO								
L0021379	0	0.16940E-05	482928.3	3729498.6	454.0	0.00	1.70	1.70
NO								

APPENDIX B-2

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021380	0	0.16940E-05	482930.2	3729495.4	454.1	0.00	1.70	1.70	
NO									
L0021381	0	0.16940E-05	482932.0	3729492.3	454.1	0.00	1.70	1.70	
NO									
L0021382	0	0.16940E-05	482933.9	3729489.1	454.1	0.00	1.70	1.70	
NO									
L0021383	0	0.16940E-05	482935.7	3729486.0	454.2	0.00	1.70	1.70	
NO									
L0021384	0	0.16940E-05	482937.6	3729482.8	454.2	0.00	1.70	1.70	
NO									
L0021385	0	0.16940E-05	482939.5	3729479.7	454.3	0.00	1.70	1.70	
NO									
L0021386	0	0.16940E-05	482941.3	3729476.5	454.4	0.00	1.70	1.70	
NO									
L0021387	0	0.16940E-05	482943.2	3729473.4	454.4	0.00	1.70	1.70	
NO									
L0021388	0	0.16940E-05	482945.0	3729470.2	454.5	0.00	1.70	1.70	

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NO								
L0021389	0	0.16940E-05	482946.9	3729467.1	454.6	0.00	1.70	1.70
NO								
L0021390	0	0.16940E-05	482948.7	3729463.9	454.7	0.00	1.70	1.70
NO								
L0021391	0	0.16940E-05	482950.6	3729460.8	454.8	0.00	1.70	1.70
NO								
L0021392	0	0.16940E-05	482952.4	3729457.6	454.9	0.00	1.70	1.70
NO								
L0021393	0	0.16940E-05	482954.3	3729454.4	455.0	0.00	1.70	1.70
NO								
L0021394	0	0.16940E-05	482956.2	3729451.3	455.0	0.00	1.70	1.70
NO								
L0021395	0	0.16940E-05	482958.0	3729448.1	455.1	0.00	1.70	1.70
NO								
L0021396	0	0.16940E-05	482959.9	3729445.0	455.1	0.00	1.70	1.70
NO								
L0021397	0	0.16940E-05	482961.7	3729441.8	455.1	0.00	1.70	1.70
NO								
L0021398	0	0.16940E-05	482963.6	3729438.7	455.1	0.00	1.70	1.70
NO								
L0021399	0	0.16940E-05	482965.4	3729435.5	455.2	0.00	1.70	1.70
NO								
L0021400	0	0.16940E-05	482967.3	3729432.4	455.2	0.00	1.70	1.70
NO								
L0021401	0	0.16940E-05	482969.1	3729429.2	455.3	0.00	1.70	1.70
NO								
L0021402	0	0.16940E-05	482971.0	3729426.1	455.4	0.00	1.70	1.70
NO								
L0021403	0	0.16940E-05	482972.8	3729422.9	455.5	0.00	1.70	1.70
NO								
L0021404	0	0.16940E-05	482974.7	3729419.8	455.7	0.00	1.70	1.70
NO								
L0021405	0	0.16940E-05	482976.6	3729416.6	455.8	0.00	1.70	1.70
NO								
L0021406	0	0.16940E-05	482978.4	3729413.5	455.9	0.00	1.70	1.70
NO								

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L0021407	0	0.16940E-05	482980.3	3729410.3	455.9	0.00	1.70	1.70
NO								
L0021408	0	0.16940E-05	482982.1	3729407.2	455.9	0.00	1.70	1.70
NO								
L0021409	0	0.16940E-05	482984.0	3729404.0	456.0	0.00	1.70	1.70
NO								
L0021410	0	0.16940E-05	482985.8	3729400.9	456.0	0.00	1.70	1.70
NO								
L0021411	0	0.16940E-05	482987.7	3729397.7	456.0	0.00	1.70	1.70
NO								
L0021412	0	0.16940E-05	482989.5	3729394.6	455.9	0.00	1.70	1.70
NO								
L0021413	0	0.16860E-05	482621.8	3729986.0	443.4	0.00	1.70	1.70
NO								
L0021414	0	0.16860E-05	482623.3	3729982.7	443.5	0.00	1.70	1.70
NO								
L0021415	0	0.16860E-05	482624.9	3729979.3	443.6	0.00	1.70	1.70
NO								
L0021416	0	0.16860E-05	482626.4	3729976.0	443.7	0.00	1.70	1.70
NO								
L0021417	0	0.16860E-05	482627.9	3729972.7	443.8	0.00	1.70	1.70
NO								
L0021418	0	0.16860E-05	482629.4	3729969.4	443.9	0.00	1.70	1.70
NO								
L0021419	0	0.16860E-05	482630.9	3729966.0	444.0	0.00	1.70	1.70
NO								

APPENDIX B-2

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021420	0	0.16860E-05	482632.4	3729962.7	444.1	0.00	1.70	1.70	
NO									
L0021421	0	0.16860E-05	482633.9	3729959.4	444.2	0.00	1.70	1.70	
NO									
L0021422	0	0.16860E-05	482635.4	3729956.0	444.3	0.00	1.70	1.70	
NO									
L0021423	0	0.16860E-05	482637.0	3729952.7	444.4	0.00	1.70	1.70	
NO									
L0021424	0	0.16860E-05	482638.5	3729949.4	444.6	0.00	1.70	1.70	
NO									
L0021425	0	0.16860E-05	482640.0	3729946.0	444.7	0.00	1.70	1.70	
NO									
L0021426	0	0.16860E-05	482641.5	3729942.7	444.7	0.00	1.70	1.70	
NO									
L0021427	0	0.16860E-05	482643.0	3729939.4	444.8	0.00	1.70	1.70	
NO									
L0021428	0	0.16860E-05	482644.5	3729936.1	444.8	0.00	1.70	1.70	

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NO								
L0021429	0	0.16860E-05	482646.0	3729932.7	444.8	0.00	1.70	1.70
NO								
L0021430	0	0.16860E-05	482647.5	3729929.4	444.9	0.00	1.70	1.70
NO								
L0021431	0	0.16860E-05	482649.1	3729926.1	444.9	0.00	1.70	1.70
NO								
L0021432	0	0.16860E-05	482650.6	3729922.7	445.0	0.00	1.70	1.70
NO								
L0021433	0	0.16860E-05	482652.1	3729919.4	445.1	0.00	1.70	1.70
NO								
L0021434	0	0.16860E-05	482653.8	3729916.2	445.2	0.00	1.70	1.70
NO								
L0021435	0	0.16860E-05	482655.7	3729913.1	445.3	0.00	1.70	1.70
NO								
L0021436	0	0.16860E-05	482657.6	3729909.9	445.5	0.00	1.70	1.70
NO								
L0021437	0	0.16860E-05	482659.5	3729906.8	445.6	0.00	1.70	1.70
NO								
L0021438	0	0.16860E-05	482661.4	3729903.7	445.7	0.00	1.70	1.70
NO								
L0021439	0	0.16860E-05	482663.3	3729900.6	445.8	0.00	1.70	1.70
NO								
L0021440	0	0.16860E-05	482665.2	3729897.4	445.9	0.00	1.70	1.70
NO								
L0021441	0	0.16860E-05	482667.1	3729894.3	446.0	0.00	1.70	1.70
NO								
L0021442	0	0.16860E-05	482669.0	3729891.2	446.0	0.00	1.70	1.70
NO								
L0021443	0	0.16860E-05	482670.9	3729888.0	446.1	0.00	1.70	1.70
NO								
L0021444	0	0.16860E-05	482672.8	3729884.9	446.2	0.00	1.70	1.70
NO								
L0021445	0	0.16860E-05	482674.7	3729881.8	446.3	0.00	1.70	1.70
NO								
L0021446	0	0.16860E-05	482676.6	3729878.7	446.4	0.00	1.70	1.70
NO								

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L0021447	0	0.16860E-05	482678.5	3729875.5	446.5	0.00	1.70	1.70
NO								
L0021448	0	0.16860E-05	482680.3	3729872.4	446.7	0.00	1.70	1.70
NO								
L0021449	0	0.16860E-05	482682.2	3729869.3	446.8	0.00	1.70	1.70
NO								
L0021450	0	0.16860E-05	482684.1	3729866.1	446.9	0.00	1.70	1.70
NO								
L0021451	0	0.16860E-05	482686.0	3729863.0	447.0	0.00	1.70	1.70
NO								
L0021452	0	0.16860E-05	482687.9	3729859.9	447.1	0.00	1.70	1.70
NO								
L0021453	0	0.16860E-05	482689.8	3729856.7	447.2	0.00	1.70	1.70
NO								
L0021454	0	0.16860E-05	482691.7	3729853.6	447.2	0.00	1.70	1.70
NO								
L0021455	0	0.16860E-05	482693.6	3729850.5	447.3	0.00	1.70	1.70
NO								
L0021456	0	0.16860E-05	482695.5	3729847.4	447.4	0.00	1.70	1.70
NO								
L0021457	0	0.16860E-05	482697.4	3729844.2	447.4	0.00	1.70	1.70
NO								
L0021458	0	0.16860E-05	482699.3	3729841.1	447.5	0.00	1.70	1.70
NO								
L0021459	0	0.16860E-05	482701.2	3729838.0	447.6	0.00	1.70	1.70
NO								

APPENDIX B-2

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY			(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
ID	CATS.								
L0021460	0	0.16860E-05	482703.1	3729834.8	447.7	0.00	1.70	1.70	
NO									
L0021461	0	0.16860E-05	482705.0	3729831.7	447.8	0.00	1.70	1.70	
NO									
L0021462	0	0.16860E-05	482706.9	3729828.6	447.9	0.00	1.70	1.70	
NO									
L0021463	0	0.16860E-05	482708.8	3729825.5	448.0	0.00	1.70	1.70	
NO									
L0021464	0	0.16860E-05	482710.6	3729822.3	448.1	0.00	1.70	1.70	
NO									
L0021465	0	0.16860E-05	482712.5	3729819.2	448.2	0.00	1.70	1.70	
NO									
L0021466	0	0.16860E-05	482714.4	3729816.1	448.2	0.00	1.70	1.70	
NO									
L0021467	0	0.16860E-05	482716.3	3729812.9	448.3	0.00	1.70	1.70	
NO									
L0021468	0	0.16860E-05	482718.2	3729809.8	448.3	0.00	1.70	1.70	

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NO								
L0021469	0	0.16860E-05	482720.1	3729806.7	448.3	0.00	1.70	1.70
NO								
L0021470	0	0.16860E-05	482722.0	3729803.6	448.4	0.00	1.70	1.70
NO								
L0021471	0	0.16860E-05	482723.9	3729800.4	448.4	0.00	1.70	1.70
NO								
L0021472	0	0.16860E-05	482725.8	3729797.3	448.5	0.00	1.70	1.70
NO								
L0021473	0	0.16860E-05	482727.7	3729794.2	448.6	0.00	1.70	1.70
NO								
L0021474	0	0.16860E-05	482729.6	3729791.0	448.7	0.00	1.70	1.70
NO								
L0021475	0	0.16860E-05	482731.5	3729787.9	448.8	0.00	1.70	1.70
NO								
L0021476	0	0.16860E-05	482733.4	3729784.8	448.9	0.00	1.70	1.70
NO								
L0021477	0	0.16860E-05	482735.3	3729781.6	449.0	0.00	1.70	1.70
NO								
L0021478	0	0.16860E-05	482737.2	3729778.5	449.1	0.00	1.70	1.70
NO								
L0021479	0	0.16860E-05	482739.1	3729775.4	449.2	0.00	1.70	1.70
NO								
L0021480	0	0.16860E-05	482740.9	3729772.3	449.3	0.00	1.70	1.70
NO								
L0021481	0	0.16860E-05	482742.8	3729769.1	449.4	0.00	1.70	1.70
NO								
L0021482	0	0.16860E-05	482744.7	3729766.0	449.4	0.00	1.70	1.70
NO								
L0021483	0	0.16860E-05	482746.6	3729762.9	449.5	0.00	1.70	1.70
NO								
L0021484	0	0.16860E-05	482748.5	3729759.7	449.6	0.00	1.70	1.70
NO								
L0021485	0	0.16860E-05	482750.4	3729756.6	449.6	0.00	1.70	1.70
NO								
L0021486	0	0.16860E-05	482752.3	3729753.5	449.7	0.00	1.70	1.70
NO								

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L0021487	0	0.16860E-05	482754.2	3729750.4	449.7	0.00	1.70	1.70
NO								
L0021488	0	0.16860E-05	482756.1	3729747.2	449.8	0.00	1.70	1.70
NO								
L0021489	0	0.16860E-05	482758.0	3729744.1	449.9	0.00	1.70	1.70
NO								
L0021490	0	0.16860E-05	482759.9	3729741.0	449.9	0.00	1.70	1.70
NO								
L0021491	0	0.16860E-05	482761.8	3729737.8	450.0	0.00	1.70	1.70
NO								
L0021492	0	0.16860E-05	482763.7	3729734.7	450.1	0.00	1.70	1.70
NO								
L0021493	0	0.16860E-05	482765.6	3729731.6	450.2	0.00	1.70	1.70
NO								
L0021494	0	0.16860E-05	482767.5	3729728.5	450.4	0.00	1.70	1.70
NO								
L0021495	0	0.16860E-05	482769.4	3729725.3	450.4	0.00	1.70	1.70
NO								
L0021496	0	0.16860E-05	482771.2	3729722.2	450.4	0.00	1.70	1.70
NO								
L0021497	0	0.16860E-05	482773.1	3729719.1	450.5	0.00	1.70	1.70
NO								
L0021498	0	0.16860E-05	482775.0	3729715.9	450.5	0.00	1.70	1.70
NO								
L0021499	0	0.16860E-05	482776.9	3729712.8	450.6	0.00	1.70	1.70
NO								

APPENDIX B-2

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021500	0	0.16860E-05	482778.8	3729709.7	450.6	0.00	1.70	1.70	
NO									
L0021501	0	0.16860E-05	482780.7	3729706.5	450.7	0.00	1.70	1.70	
NO									
L0021502	0	0.16860E-05	482782.6	3729703.4	450.8	0.00	1.70	1.70	
NO									
L0021503	0	0.16860E-05	482784.5	3729700.3	450.9	0.00	1.70	1.70	
NO									
L0021504	0	0.16860E-05	482786.4	3729697.2	450.9	0.00	1.70	1.70	
NO									
L0021505	0	0.16860E-05	482788.3	3729694.0	451.0	0.00	1.70	1.70	
NO									
L0021506	0	0.16860E-05	482790.2	3729690.9	451.1	0.00	1.70	1.70	
NO									
L0021507	0	0.16860E-05	482792.1	3729687.8	451.2	0.00	1.70	1.70	
NO									
L0021508	0	0.16860E-05	482794.0	3729684.6	451.2	0.00	1.70	1.70	

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NO								
L0021509	0	0.16860E-05	482795.9	3729681.5	451.2	0.00	1.70	1.70
NO								
L0021510	0	0.16860E-05	482797.8	3729678.4	451.3	0.00	1.70	1.70
NO								
L0021511	0	0.16860E-05	482799.7	3729675.3	451.3	0.00	1.70	1.70
NO								
L0021512	0	0.16860E-05	482801.5	3729672.1	451.4	0.00	1.70	1.70
NO								
L0021513	0	0.16860E-05	482803.4	3729669.0	451.4	0.00	1.70	1.70
NO								
L0021514	0	0.16860E-05	482805.3	3729665.9	451.5	0.00	1.70	1.70
NO								
L0021515	0	0.16860E-05	482807.2	3729662.7	451.6	0.00	1.70	1.70
NO								
L0021516	0	0.16860E-05	482809.1	3729659.6	451.6	0.00	1.70	1.70
NO								
L0021517	0	0.16860E-05	482811.0	3729656.5	451.7	0.00	1.70	1.70
NO								
L0021518	0	0.16860E-05	482812.9	3729653.4	451.8	0.00	1.70	1.70
NO								
L0021519	0	0.16860E-05	482814.8	3729650.2	451.9	0.00	1.70	1.70
NO								
L0021520	0	0.16860E-05	482816.7	3729647.1	452.0	0.00	1.70	1.70
NO								
L0021521	0	0.16860E-05	482818.6	3729644.0	452.1	0.00	1.70	1.70
NO								
L0021522	0	0.16860E-05	482820.5	3729640.8	452.1	0.00	1.70	1.70
NO								
L0021523	0	0.16860E-05	482822.4	3729637.7	452.2	0.00	1.70	1.70
NO								
L0021524	0	0.16860E-05	482824.3	3729634.6	452.2	0.00	1.70	1.70
NO								
L0021525	0	0.16860E-05	482826.2	3729631.4	452.3	0.00	1.70	1.70
NO								
L0021526	0	0.16860E-05	482828.1	3729628.3	452.3	0.00	1.70	1.70
NO								

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L0021527	0	0.16860E-05	482830.0	3729625.2	452.3	0.00	1.70	1.70
NO								
L0021528	0	0.16860E-05	482831.8	3729622.1	452.3	0.00	1.70	1.70
NO								
L0021529	0	0.16860E-05	482833.7	3729618.9	452.4	0.00	1.70	1.70
NO								
L0021530	0	0.16860E-05	482835.6	3729615.8	452.5	0.00	1.70	1.70
NO								
L0021531	0	0.16860E-05	482837.5	3729612.7	452.6	0.00	1.70	1.70
NO								
L0021532	0	0.16860E-05	482839.4	3729609.5	452.7	0.00	1.70	1.70
NO								
L0021533	0	0.16860E-05	482841.3	3729606.4	452.8	0.00	1.70	1.70
NO								
L0021534	0	0.16860E-05	482843.2	3729603.3	452.9	0.00	1.70	1.70
NO								
L0021535	0	0.16860E-05	482845.1	3729600.2	453.0	0.00	1.70	1.70
NO								
L0021536	0	0.16860E-05	482847.0	3729597.0	453.0	0.00	1.70	1.70
NO								
L0021537	0	0.16860E-05	482848.9	3729593.9	453.0	0.00	1.70	1.70
NO								
L0021538	0	0.16860E-05	482850.8	3729590.8	453.0	0.00	1.70	1.70
NO								
L0021539	0	0.16860E-05	482852.7	3729587.6	453.0	0.00	1.70	1.70
NO								

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
L0021540	0	0.16860E-05	482854.6	3729584.5	453.1	0.00	1.70	1.70	
NO									
L0021541	0	0.16860E-05	482856.5	3729581.4	453.1	0.00	1.70	1.70	
NO									
L0021542	0	0.16860E-05	482858.4	3729578.3	453.2	0.00	1.70	1.70	
NO									
L0021543	0	0.16860E-05	482860.3	3729575.1	453.3	0.00	1.70	1.70	
NO									
L0021544	0	0.16860E-05	482862.1	3729572.0	453.4	0.00	1.70	1.70	
NO									
L0021545	0	0.16860E-05	482864.0	3729568.9	453.5	0.00	1.70	1.70	
NO									
L0021546	0	0.16860E-05	482865.9	3729565.7	453.5	0.00	1.70	1.70	
NO									
L0021547	0	0.16860E-05	482867.8	3729562.6	453.6	0.00	1.70	1.70	
NO									
L0021548	0	0.16860E-05	482869.7	3729559.5	453.7	0.00	1.70	1.70	

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NO								
L0021549	0	0.16860E-05	482871.6	3729556.3	453.7	0.00	1.70	1.70
NO								
L0021550	0	0.16860E-05	482873.5	3729553.2	453.7	0.00	1.70	1.70
NO								
L0021551	0	0.16860E-05	482875.4	3729550.1	453.8	0.00	1.70	1.70
NO								
L0021552	0	0.16860E-05	482877.3	3729547.0	453.8	0.00	1.70	1.70
NO								
L0021553	0	0.16860E-05	482879.2	3729543.8	453.9	0.00	1.70	1.70
NO								
L0021554	0	0.16860E-05	482881.1	3729540.7	453.9	0.00	1.70	1.70
NO								
L0021555	0	0.16860E-05	482883.0	3729537.6	453.9	0.00	1.70	1.70
NO								
L0021556	0	0.16860E-05	482884.9	3729534.4	454.0	0.00	1.70	1.70
NO								
L0021557	0	0.16860E-05	482886.8	3729531.3	454.0	0.00	1.70	1.70
NO								
L0021558	0	0.16860E-05	482888.7	3729528.2	454.1	0.00	1.70	1.70
NO								
L0021559	0	0.16860E-05	482890.6	3729525.1	454.1	0.00	1.70	1.70
NO								
L0021560	0	0.16860E-05	482892.5	3729521.9	454.2	0.00	1.70	1.70
NO								
L0021561	0	0.16860E-05	482894.3	3729518.8	454.3	0.00	1.70	1.70
NO								
L0021562	0	0.16860E-05	482896.2	3729515.7	454.4	0.00	1.70	1.70
NO								
L0021563	0	0.16860E-05	482898.1	3729512.5	454.4	0.00	1.70	1.70
NO								
L0021564	0	0.16860E-05	482900.0	3729509.4	454.5	0.00	1.70	1.70
NO								
L0021565	0	0.16860E-05	482901.9	3729506.3	454.4	0.00	1.70	1.70
NO								
L0021566	0	0.16860E-05	482903.8	3729503.2	454.4	0.00	1.70	1.70
NO								

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L0021567	0	0.16860E-05	482905.7	3729500.0	454.4	0.00	1.70	1.70
NO								
L0021568	0	0.16860E-05	482907.6	3729496.9	454.5	0.00	1.70	1.70
NO								
L0021569	0	0.16860E-05	482909.5	3729493.8	454.5	0.00	1.70	1.70
NO								
L0021570	0	0.16860E-05	482911.4	3729490.6	454.6	0.00	1.70	1.70
NO								
L0021571	0	0.16860E-05	482913.3	3729487.5	454.7	0.00	1.70	1.70
NO								
L0021572	0	0.16860E-05	482915.2	3729484.4	454.8	0.00	1.70	1.70
NO								
L0021573	0	0.16860E-05	482917.1	3729481.2	454.9	0.00	1.70	1.70
NO								
L0021574	0	0.16860E-05	482919.0	3729478.1	455.1	0.00	1.70	1.70
NO								
L0021575	0	0.16860E-05	482920.9	3729475.0	455.1	0.00	1.70	1.70
NO								
L0021576	0	0.16860E-05	482922.8	3729471.9	455.1	0.00	1.70	1.70
NO								
L0021577	0	0.16860E-05	482924.6	3729468.7	455.0	0.00	1.70	1.70
NO								
L0021578	0	0.16860E-05	482926.5	3729465.6	455.0	0.00	1.70	1.70
NO								
L0021579	0	0.16860E-05	482928.4	3729462.5	455.0	0.00	1.70	1.70
NO								

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

URBAN	EMISSION RATE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	
SOURCE SCALAR VARY									
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
BY									
L0021580	0	0.16860E-05	482930.3	3729459.3	455.1	0.00	1.70	1.70	
NO									
L0021581	0	0.16860E-05	482932.2	3729456.2	455.1	0.00	1.70	1.70	
NO									
L0021582	0	0.16860E-05	482934.1	3729453.1	455.2	0.00	1.70	1.70	
NO									
L0021583	0	0.16860E-05	482936.0	3729450.0	455.3	0.00	1.70	1.70	
NO									
L0021584	0	0.16860E-05	482937.9	3729446.8	455.4	0.00	1.70	1.70	
NO									
L0021585	0	0.16860E-05	482939.8	3729443.7	455.4	0.00	1.70	1.70	
NO									
L0021586	0	0.16860E-05	482941.7	3729440.6	455.5	0.00	1.70	1.70	
NO									
L0021587	0	0.16860E-05	482943.6	3729437.4	455.5	0.00	1.70	1.70	
NO									
L0021588	0	0.16860E-05	482945.5	3729434.3	455.6	0.00	1.70	1.70	

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NO								
L0021589	0	0.16860E-05	482947.4	3729431.2	455.7	0.00	1.70	1.70
NO								
L0021590	0	0.16860E-05	482949.3	3729428.1	455.7	0.00	1.70	1.70
NO								
L0021591	0	0.16860E-05	482951.2	3729424.9	455.7	0.00	1.70	1.70
NO								
L0021592	0	0.16860E-05	482953.1	3729421.8	455.7	0.00	1.70	1.70
NO								
L0021593	0	0.16860E-05	482954.9	3729418.7	455.7	0.00	1.70	1.70
NO								
L0021594	0	0.16860E-05	482956.8	3729415.5	455.7	0.00	1.70	1.70
NO								
L0021595	0	0.16860E-05	482958.7	3729412.4	455.7	0.00	1.70	1.70
NO								
L0021596	0	0.16860E-05	482960.6	3729409.3	455.7	0.00	1.70	1.70
NO								
L0021597	0	0.16860E-05	482962.5	3729406.1	455.7	0.00	1.70	1.70
NO								
L0021598	0	0.16860E-05	482964.4	3729403.0	455.8	0.00	1.70	1.70
NO								
L0021599	0	0.16860E-05	482966.3	3729399.9	455.8	0.00	1.70	1.70
NO								
L0021600	0	0.16860E-05	482968.2	3729396.8	455.9	0.00	1.70	1.70
NO								
L0021601	0	0.16860E-05	482970.1	3729393.6	456.1	0.00	1.70	1.70
NO								
L0021602	0	0.16860E-05	482972.0	3729390.5	456.2	0.00	1.70	1.70
NO								
L0021603	0	0.16860E-05	482973.9	3729387.4	456.3	0.00	1.70	1.70
NO								
L0021604	0	0.16860E-05	482975.8	3729384.2	456.2	0.00	1.70	1.70
NO								
L0021605	0	0.16860E-05	482977.7	3729381.1	456.2	0.00	1.70	1.70
NO								
L0021606	0	0.16860E-05	482979.6	3729378.0	456.1	0.00	1.70	1.70
NO								

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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ALL	L0021220 , L0021221 , L0021222 , L0021223 , L0021224 ,
L0021225	, L0021226 , L0021227 ,
L0021233	L0021228 , L0021229 , L0021230 , L0021231 , L0021232 ,
	, L0021234 , L0021235 ,
L0021241	L0021236 , L0021237 , L0021238 , L0021239 , L0021240 ,
	, L0021242 , L0021243 ,
L0021249	L0021244 , L0021245 , L0021246 , L0021247 , L0021248 ,
	, L0021250 , L0021251 ,
L0021257	L0021252 , L0021253 , L0021254 , L0021255 , L0021256 ,
	, L0021258 , L0021259 ,
L0021265	L0021260 , L0021261 , L0021262 , L0021263 , L0021264 ,
	, L0021266 , L0021267 ,
L0021273	L0021268 , L0021269 , L0021270 , L0021271 , L0021272 ,
	, L0021274 , L0021275 ,
	L0021276 , L0021277 , L0021278 , L0021279 , L0021280 ,

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L0021281	,	L0021282	,	L0021283	,	
		L0021284	,	L0021285	,	L0021286
L0021289	,	L0021290	,	L0021291	,	L0021287
						L0021288
		L0021292	,	L0021293	,	L0021294
L0021297	,	L0021298	,	L0021299	,	L0021295
						L0021296
		L0021300	,	L0021301	,	L0021302
L0021305	,	L0021306	,	L0021307	,	L0021303
						L0021304
		L0021308	,	L0021309	,	L0021310
L0021313	,	L0021314	,	L0021315	,	L0021311
						L0021312
		L0021316	,	L0021317	,	L0021318
L0021321	,	L0021322	,	L0021323	,	L0021319
						L0021320
		L0021324	,	L0021325	,	L0021326
L0021329	,	L0021330	,	L0021331	,	L0021327
						L0021328
		L0021332	,	L0021333	,	L0021334
L0021337	,	L0021338	,	L0021339	,	L0021335
						L0021336
		L0021340	,	L0021341	,	L0021342
L0021345	,	L0021346	,	L0021347	,	L0021343
						L0021344
		L0021348	,	L0021349	,	L0021350
L0021353	,	L0021354	,	L0021355	,	L0021351
						L0021352
		L0021356	,	L0021357	,	L0021358
L0021361	,	L0021362	,	L0021363	,	L0021359
						L0021360
		L0021364	,	L0021365	,	L0021366
L0021369	,	L0021370	,	L0021371	,	L0021367
						L0021368
		L0021372	,	L0021373	,	L0021374
L0021377	,	L0021378	,	L0021379	,	L0021375
						L0021376

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*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***       11/08/22
*** AERMET - VERSION 16216 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
-----	-----
L0021385	L0021380 , L0021381 , L0021382 , L0021383 , L0021384 , , L0021386 , L0021387 ,
L0021393	L0021388 , L0021389 , L0021390 , L0021391 , L0021392 , , L0021394 , L0021395 ,
L0021401	L0021396 , L0021397 , L0021398 , L0021399 , L0021400 , , L0021402 , L0021403 ,
L0021409	L0021404 , L0021405 , L0021406 , L0021407 , L0021408 , , L0021410 , L0021411 ,
L0021417	L0021412 , L0021413 , L0021414 , L0021415 , L0021416 , , L0021418 , L0021419 ,
L0021425	L0021420 , L0021421 , L0021422 , L0021423 , L0021424 , , L0021426 , L0021427 ,
L0021433	L0021428 , L0021429 , L0021430 , L0021431 , L0021432 , , L0021434 , L0021435 ,
	L0021436 , L0021437 , L0021438 , L0021439 , L0021440 ,

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L0021441	,	L0021442	,	L0021443	,		
		L0021444	,	L0021445	,	L0021446	,
L0021449	,	L0021450	,	L0021451	,		
		L0021452	,	L0021453	,	L0021454	,
L0021457	,	L0021458	,	L0021459	,		
		L0021460	,	L0021461	,	L0021462	,
L0021465	,	L0021466	,	L0021467	,		
		L0021468	,	L0021469	,	L0021470	,
L0021473	,	L0021474	,	L0021475	,		
		L0021476	,	L0021477	,	L0021478	,
L0021481	,	L0021482	,	L0021483	,		
		L0021484	,	L0021485	,	L0021486	,
L0021489	,	L0021490	,	L0021491	,		
		L0021492	,	L0021493	,	L0021494	,
L0021497	,	L0021498	,	L0021499	,		
		L0021500	,	L0021501	,	L0021502	,
L0021505	,	L0021506	,	L0021507	,		
		L0021508	,	L0021509	,	L0021510	,
L0021513	,	L0021514	,	L0021515	,		
		L0021516	,	L0021517	,	L0021518	,
L0021521	,	L0021522	,	L0021523	,		
		L0021524	,	L0021525	,	L0021526	,
L0021529	,	L0021530	,	L0021531	,		
		L0021532	,	L0021533	,	L0021534	,
L0021537	,	L0021538	,	L0021539	,		

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs									
-----	-----									
L0021545	L0021540	,	L0021541	,	L0021542	,	L0021543	,	L0021544	,
	, L0021546		, L0021547		,					
L0021553	L0021548	,	L0021549	,	L0021550	,	L0021551	,	L0021552	,
	, L0021554		, L0021555		,					
L0021561	L0021556	,	L0021557	,	L0021558	,	L0021559	,	L0021560	,
	, L0021562		, L0021563		,					
L0021569	L0021564	,	L0021565	,	L0021566	,	L0021567	,	L0021568	,
	, L0021570		, L0021571		,					
L0021577	L0021572	,	L0021573	,	L0021574	,	L0021575	,	L0021576	,
	, L0021578		, L0021579		,					
L0021585	L0021580	,	L0021581	,	L0021582	,	L0021583	,	L0021584	,
	, L0021586		, L0021587		,					
L0021593	L0021588	,	L0021589	,	L0021590	,	L0021591	,	L0021592	,
	, L0021594		, L0021595		,					
	L0021596	,	L0021597	,	L0021598	,	L0021599	,	L0021600	,

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L0021601 , L0021602 , L0021603 ,
L0021604 , L0021605 , L0021606 ,

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*** AERMOD - VERSION 21112 ***    *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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```

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```
*** MODELOPTs:      RegDEFAULT CONC ELEV RURAL ADJ_U*
```

```
*** GRIDDED RECEPTOR NETWORK SUMMARY ***
```

```
*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***
```

```
*** X-COORDINATES OF GRID ***
(METERS)
```

```
482725.5, 482750.5, 482775.5, 482800.5, 482825.5, 482850.5, 482875.5,
482900.5, 482925.5, 482950.5,
482975.5, 483000.5,
```

```
*** Y-COORDINATES OF GRID ***
(METERS)
```

```
3729592.5, 3729617.5, 3729642.5, 3729667.5, 3729692.5, 3729717.5, 3729742.5,
3729767.5, 3729792.5, 3729817.5,
3729842.5, 3729867.5,
```

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*** AERMOD - VERSION 21112 ***    *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)		482725.50	482750.50	482775.50	482800.50	482825.50
482850.50	482875.50	482900.50	482925.50			

3729867.50		447.00	448.30	450.20	451.10	451.60
452.40	453.90	455.50	456.70			
3729842.50		447.40	448.10	450.40	452.00	452.30
452.40	453.00	454.20	455.30			
3729817.50		448.20	448.50	450.00	451.90	452.40
452.50	452.70	453.40	454.50			
3729792.50		448.60	449.20	450.30	451.80	452.40
452.80	453.20	453.40	453.70			
3729767.50		448.80	449.50	450.30	451.20	452.20
453.20	453.60	453.90	454.10			
3729742.50		448.90	449.60	450.30	450.80	451.80
453.20	453.80	454.10	454.50			
3729717.50		448.90	449.60	450.50	450.80	451.20
452.50	453.70	454.10	454.60			
3729692.50		448.50	449.30	450.60	451.10	450.80
451.20	453.30	454.20	454.80			
3729667.50		448.50	449.10	450.20	451.40	451.50
451.00	452.10	454.40	456.10			
3729642.50		448.30	448.60	449.60	451.20	452.10

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451.70	451.70	454.20	458.60			
3729617.50		447.90	448.20	448.90	450.40	452.20
452.50	452.00	453.30	458.10			
3729592.50		447.30	447.70	448.30	449.40	451.60
453.00	452.80	452.40	455.20			

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*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

```

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	482950.50	482975.50	483000.50	X-COORD (METERS)
3729867.50	457.60	458.60	459.20	
3729842.50	456.20	457.40	458.20	
3729817.50	455.50	456.70	457.40	
3729792.50	454.30	455.60	456.70	
3729767.50	454.70	455.90	457.00	
3729742.50	455.30	456.40	457.30	
3729717.50	455.50	456.50	457.50	
3729692.50	456.00	457.00	458.00	
3729667.50	458.80	460.60	461.30	
3729642.50	462.50	463.70	464.20	
3729617.50	463.20	464.70	465.30	
3729592.50	460.80	464.10	465.10	

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)		482725.50	482750.50	482775.50	482800.50	482825.50
482850.50		482875.50	482900.50	482925.50		

3729867.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729842.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729817.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729792.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729767.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729742.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729717.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729692.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729667.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729642.50		529.60	529.60	529.60	529.60	529.60

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529.60	529.60	529.60	529.60			
3729617.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			
3729592.50		529.60	529.60	529.60	529.60	529.60
529.60	529.60	529.60	529.60			

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*** AERMOD - VERSION 21112 ***    *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***          11/08/22
*** AERMET - VERSION 16216 ***    ***
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*** MODELOPTs:      RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

```

*** NETWORK ID: UCART1    ; NETWORK TYPE: GRIDCART ***

```

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	482950.50	482975.50	483000.50	X-COORD (METERS)
3729867.50	529.60	529.60	529.60	
3729842.50	529.60	529.60	529.60	
3729817.50	529.60	529.60	529.60	
3729792.50	529.60	529.60	529.60	
3729767.50	529.60	529.60	529.60	
3729742.50	529.60	529.60	529.60	
3729717.50	529.60	529.60	529.60	
3729692.50	529.60	529.60	529.60	
3729667.50	529.60	529.60	529.60	
3729642.50	529.60	529.60	529.60	
3729617.50	529.60	529.60	529.60	
3729592.50	529.60	529.60	529.60	

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*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment *** 11/08/22
*** AERMET - VERSION 16216 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(482835.7, 3729772.5,	452.7,	529.6,	0.0);	(482852.0, 3729743.9,
453.3, 529.6, 0.0);				
(482869.8, 3729713.4,	453.5,	529.6,	0.0);	(482887.2, 3729684.6,
453.6, 529.6, 0.0);				
(482852.8, 3729760.7,	453.4,	529.6,	0.0);	(482885.4, 3729703.0,
453.8, 529.6, 0.0);				

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE
 PERFORMED *
 LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
 FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS) YR (METERS)	DISTANCE (METERS)
- - - - -	- - - - -	- - - - -
L0021270	482725.5 3729842.5	0.93
L0021309	482800.5 3729717.5	-0.99
L0021310	482800.5 3729717.5	-2.24
L0021324	482825.5 3729667.5	0.88
L0021325	482825.5 3729667.5	-0.68
L0021349	482875.5 3729592.5	-0.76
L0021350	482875.5 3729592.5	-0.98
L0021473	482725.5 3729792.5	-0.90
L0021474	482725.5 3729792.5	0.68
L0021497	482775.5 3729717.5	-0.82
L0021498	482775.5 3729717.5	-2.02
L0021513	482800.5 3729667.5	-0.35
L0021537	482850.5 3729592.5	-1.52
L0021538	482850.5 3729592.5	-1.90

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING

* * *

(1=YES; 0=NO)

[illegible]

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

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*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
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*** AERMET - VERSION 16216 ***      ***
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PerrisADJU\PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216

Profile file: PerrisADJU\PERI V9 ADJU\PERI v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171

Name: UNKNOWN

Year: 2010

Upper air station no.: 3190

Name: UNKNOWN

Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF
WS	WD		HT	REF	TA	HT										
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.		21.2	0.19	0.61	1.00	
1.30	335.			9.1	282.5	5.5										
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.		15.1	0.19	0.61	1.00	
0.90	142.			9.1	280.9	5.5										
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.		15.1	0.19	0.61	1.00	
0.90	324.			9.1	280.4	5.5										
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.		18.3	0.19	0.61	1.00	
0.40	294.			9.1	278.8	5.5										
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.		15.0	0.19	0.61	1.00	
0.90	205.			9.1	278.1	5.5										
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.		18.3	0.19	0.61	1.00	
0.40	3.			9.1	277.0	5.5										
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.		21.0	0.19	0.61	1.00	

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1.30	99.	9.1	277.0	5.5									
10 01 01	1 08		-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	
0.90	319.	9.1	278.8	5.5									
10 01 01	1 09		20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	
0.90	239.	9.1	284.2	5.5									
10 01 01	1 10		56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	
0.40	188.	9.1	289.2	5.5									
10 01 01	1 11		81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	
2.70	310.	9.1	290.9	5.5									
10 01 01	1 12		97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	
2.20	357.	9.1	293.1	5.5									
10 01 01	1 13		92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	
2.20	356.	9.1	293.8	5.5									
10 01 01	1 14		77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	
2.20	50.	9.1	294.2	5.5									
10 01 01	1 15		54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	
1.80	53.	9.1	293.8	5.5									
10 01 01	1 16		12.3	0.206	0.613	0.008	648.	225.	-61.5	0.19	0.61	0.36	
1.80	11.	9.1	292.5	5.5									
10 01 01	1 17		-3.6	0.087	-9.000	-9.000	-999.	71.	15.6	0.19	0.61	0.64	
0.90	351.	9.1	290.4	5.5									
10 01 01	1 18		-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	
0.90	186.	9.1	287.5	5.5									
10 01 01	1 19		-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	
0.90	275.	9.1	285.9	5.5									
10 01 01	1 20		-1.2	0.064	-9.000	-9.000	-999.	39.	18.1	0.19	0.61	1.00	
0.40	181.	9.1	285.4	5.5									
10 01 01	1 21		-7.8	0.125	-9.000	-9.000	-999.	106.	21.3	0.19	0.61	1.00	
1.30	318.	9.1	284.9	5.5									
10 01 01	1 22		-3.8	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	
0.90	196.	9.1	283.1	5.5									
10 01 01	1 23		-3.8	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	
0.90	330.	9.1	281.4	5.5									
10 01 01	1 24		-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	
1.30	332.	9.1	280.9	5.5									

APPENDIX B-2

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
10	01	01	01	5.5	0	-999.	-99.00	282.6	99.0	-99.00	-99.00
10	01	01	01	9.1	1	335.	1.30	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

APPENDIX B-2

```

*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***           11/08/22
*** AERMET - VERSION 16216 ***   ***
***           13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222 , L0021223 , L0021224 , L0021220 , L0021221 ,
                L0021225 , L0021226 , L0021227 , L0021228 , L0021229 ,
L0021230 , L0021231 , L0021232 , L0021233 , L0021234 , L0021235 , L0021236 , L0021237 ,
                L0021239 , L0021240 , L0021241 , L0021242 , L0021243 , L0021244 , L0021245 ,
L0021246 , L0021247 , . . . ,

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3

**

Y-COORD (METERS)	X-COORD (METERS)					
482850.50	482875.50	482900.50	482925.50	482725.50	482750.50	482775.50

3729867.50	0.27063	0.10807	0.06873	0.05067	0.04000	
0.03262	0.02694	0.02251	0.01915			
3729842.50	0.30989	0.15842	0.08646	0.05958	0.04585	
0.03699	0.03051	0.02545	0.02156			
3729817.50	0.27400	0.30255	0.11596	0.07297	0.05371	
0.04226	0.03440	0.02853	0.02396			
3729792.50	0.29470	0.33462	0.17135	0.09268	0.06420	

APPENDIX B-2

0.04871	0.03875	0.03181	0.02664			
3729767.50		0.16220	0.34490	0.35236	0.12664	0.07912
0.05694	0.04411	0.03552	0.02937			
3729742.50		0.10660	0.26233	0.31720	0.19925	0.10220
0.06836	0.05099	0.04014	0.03256			
3729717.50		0.07987	0.13948	0.33786	0.34201	0.14330
0.08554	0.06020	0.04596	0.03649			
3729692.50		0.06343	0.09649	0.20175	0.31617	0.24309
0.11250	0.07313	0.05333	0.04123			
3729667.50		0.05267	0.07390	0.12179	0.33416	0.33014
0.16204	0.09255	0.06307	0.04640			
3729642.50		0.04472	0.05930	0.08727	0.16451	0.37161
0.31694	0.12342	0.07717	0.05019			
3729617.50		0.03855	0.04927	0.06742	0.10655	0.25821
0.34260	0.18865	0.09938	0.06079			
3729592.50		0.03357	0.04179	0.05457	0.07790	0.13812
0.34273	0.33101	0.13655	0.08071			

APPENDIX B-2

```

*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL      ***
                        INCLUDING SOURCE(S):
L0021222      , L0021223      , L0021224      ,
                L0021225      , L0021226      , L0021227      , L0021228      , L0021229      ,
L0021230      , L0021231      , L0021232      ,
                L0021233      , L0021234      , L0021235      , L0021236      , L0021237      ,
L0021238      , L0021239      , L0021240      ,
                L0021241      , L0021242      , L0021243      , L0021244      , L0021245      ,
L0021246      , L0021247      , . . .      ,

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3

**

Y-COORD (METERS)	482950.50	482975.50	483000.50	X-COORD (METERS)
3729867.50	0.01654	0.01438	0.01271	
3729842.50	0.01851	0.01593	0.01393	
3729817.50	0.02040	0.01745	0.01520	
3729792.50	0.02261	0.01925	0.01654	
3729767.50	0.02463	0.02078	0.01770	
3729742.50	0.02688	0.02242	0.01897	
3729717.50	0.02962	0.02444	0.02043	
3729692.50	0.03271	0.02657	0.02193	

APPENDIX B-2

3729667.50	0.03430	0.02651	0.02168
3729642.50	0.03273	0.02491	0.02029
3729617.50	0.03526	0.02561	0.02048
3729592.50	0.04728	0.02990	0.02266

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```

*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222      , L0021223      , L0021224      ,
                L0021225      , L0021226      , L0021227      , L0021228      , L0021229      ,
L0021230      , L0021231      , L0021232      ,
                L0021233      , L0021234      , L0021235      , L0021236      , L0021237      ,
L0021238      , L0021239      , L0021240      ,
                L0021241      , L0021242      , L0021243      , L0021244      , L0021245      ,
L0021246      , L0021247      , . . .      ,

```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3

**

CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
0.06629	482835.69	3729772.54	0.06573	482851.99	3729743.88
0.06630	482869.80	3729713.40	0.06665	482887.24	3729684.64
0.05928	482852.85	3729760.72	0.05796	482885.41	3729702.96

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```

*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***           11/08/22
*** AERMET - VERSION 16216 ***   ***
***           13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222 , L0021223 , L0021224 , L0021220 , L0021221 ,
                L0021225 , L0021226 , L0021227 , L0021228 , L0021229 ,
L0021230 , L0021231 , L0021232 , L0021233 , L0021234 , L0021235 , L0021236 , L0021237 ,
                L0021239 , L0021240 , L0021241 , L0021242 , L0021243 , L0021244 , L0021245 ,
L0021246 , L0021247 , . . . ,

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3

**

Y-COORD (METERS)	X-COORD (METERS)	CONC OF DPM (MICROGRAMS/M ³)
482800.50	482725.50	0.85289 (10042806)
482800.50	482825.50	0.39368 (14020408)
482800.50	482750.50	0.25968 (14020408)
482800.50	482775.50	0.16580 (15042606)
482800.50	482725.50	0.54160 (14020408)
482800.50	482825.50	0.31734 (14020408)
482800.50	482750.50	0.18330 (11042423)
482800.50	482775.50	0.92704 (10042806)
482800.50	482725.50	0.41655 (14020408)
482800.50	482825.50	0.20968 (14020408)
482800.50	482750.50	0.99023 (14020408)
482800.50	482775.50	0.57494 (14020408)

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0.33800 (14020408)	0.24696 (14020408)		
3729767.5	0.58946 (14020408)	1.00730 (14020408)	1.11164 (10042806)
0.45177 (14020408)	0.29964 (14020408)		
3729742.5	0.42214 (14020408)	0.87541 (11030623)	0.97753 (14020408)
0.65665 (14020408)	0.37889 (14020408)		
3729717.5	0.33015 (14020408)	0.52350 (14020408)	1.30954 (16101807)
1.36567 (14072506)	0.50876 (14020408)		
3729692.5	0.26746 (14020408)	0.38287 (14020408)	0.69831 (14020408)
0.97831 (14020408)	0.75890 (14020408)		
3729667.5	0.22699 (14020408)	0.30304 (14020408)	0.46612 (14020408)
1.22182 (11090303)	1.13246 (16101807)		
3729642.5	0.19528 (14020408)	0.24706 (14020408)	0.34592 (14020408)
0.59604 (14020408)	1.06601 (14020408)		
3729617.5	0.16943 (14020408)	0.20891 (15081006)	0.27316 (11060221)
0.40857 (14020408)	0.88027 (16110123)		
3729592.5	0.15402 (16102822)	0.18543 (16112222)	0.23256 (15011106)
0.31491 (14080905)	0.51192 (14020408)		

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*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment *** 11/08/22
*** AERMET - VERSION 16216 *** ***
*** 13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222 , L0021223 , L0021224 , L0021220 , L0021221 ,
                L0021225 , L0021226 , L0021227 , L0021228 , L0021229 ,
L0021230 , L0021231 , L0021232 , L0021233 , L0021234 , L0021235 , L0021236 , L0021237 ,
                L0021239 , L0021240 , L0021241 , L0021242 , L0021243 , L0021244 , L0021245 ,
L0021246 , L0021247 , . . . ,

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3

**

Y-COORD (METERS)	X-COORD (METERS)
482925.50	482850.50
482950.50	482875.50
482900.50	

3729867.5	0.14031 (14080606)	0.12067 (15110105)	0.10668 (15020508)
0.10865 (15020508)	0.10405 (15020508)		
3729842.5	0.15309 (10122819)	0.13105 (10043022)	0.11431 (15022421)
0.10275 (10011720)	0.09790 (15020508)		
3729817.5	0.17183 (14020408)	0.14431 (14020408)	0.12526 (16111503)
0.11304 (15120523)	0.10233 (15022421)		
3729792.5	0.19505 (14020408)	0.16024 (14020408)	0.13679 (15020723)

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0.12269 (15110421)	0.11176 (16111503)		
3729767.5	0.22300 (14020408)	0.17933 (14020408)	0.15154 (15120419)
0.13379 (16102321)	0.12065 (15110421)		
3729742.5	0.26267 (14020408)	0.20365 (14020408)	0.16812 (15051123)
0.14708 (11102623)	0.13043 (16102321)		
3729717.5	0.32529 (14020408)	0.23676 (14020408)	0.18931 (11100207)
0.16190 (11033004)	0.14238 (11102623)		
3729692.5	0.41648 (14020408)	0.28362 (14020408)	0.21507 (11100207)
0.17928 (10052602)	0.15580 (11033004)		
3729667.5	0.55665 (14020408)	0.35328 (14020408)	0.24782 (14020408)
0.20191 (11100207)	0.18006 (11100207)		
3729642.5	0.98277 (11110817)	0.44847 (14020408)	0.29725 (14020408)
0.23172 (11100207)	0.18186 (14060306)		
3729617.5	1.02918 (14020408)	0.62722 (14020408)	0.37565 (14020408)
0.26264 (14121520)	0.19970 (16012108)		
3729592.5	1.33459 (10072406)	1.29201 (14042403)	0.48642 (14020408)
0.30894 (14032907)	0.23542 (10032807)		

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```

*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***              11/08/22
*** AERMET - VERSION 16216 ***      ***
***              13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222 , L0021223 , L0021224 , L0021220 , L0021221 ,
                L0021225 , L0021226 , L0021227 , L0021228 , L0021229 ,
L0021230 , L0021231 , L0021232 ,
                L0021233 , L0021234 , L0021235 , L0021236 , L0021237 ,
L0021238 , L0021239 , L0021240 ,
                L0021241 , L0021242 , L0021243 , L0021244 , L0021245 ,
L0021246 , L0021247 , . . . ,

```

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3

**

Y-COORD (METERS)		X-COORD (METERS)
	482975.50	483000.50
3729867.5	0.09618 (15020508)	0.08703 (15020508)
3729842.5	0.10157 (15020508)	0.09807 (15020508)
3729817.5	0.09456 (15020508)	0.09580 (15020508)
3729792.5	0.10178 (15120523)	0.09249 (15022421)
3729767.5	0.10878 (16111503)	0.09798 (16111406)
3729742.5	0.12049 (14120808)	0.10652 (14120808)
3729717.5	0.13050 (14120808)	0.12263 (14120808)
3729692.5	0.14108 (11062106)	0.13699 (14120808)

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3729667.5	0.17180 (14060306)	0.15626 (14120808)
3729642.5	0.15817 (14060306)	0.14082 (14032207)
3729617.5	0.16091 (16031607)	0.14031 (16031607)
3729592.5	0.18631 (16012108)	0.15509 (16031607)

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```

*** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***            11/08/22
*** AERMET - VERSION 16216 ***      ***
***      13:34:24

```

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR
SOURCE GROUP: ALL ***
                INCLUDING SOURCE(S):
L0021222      , L0021223      , L0021224      ,
                L0021225      , L0021226      , L0021227      , L0021228      , L0021229      ,
L0021230      , L0021231      , L0021232      ,
                L0021233      , L0021234      , L0021235      , L0021236      , L0021237      ,
L0021238      , L0021239      , L0021240      ,
                L0021241      , L0021242      , L0021243      , L0021244      , L0021245      ,
L0021246      , L0021247      , . . .      ,

```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3

**

(M)	X-COORD (M) CONC	Y-COORD (M) (YYMMDDHH)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD
482835.69	3729772.54	0.25334	(14020408)	482851.99		
3729743.88	0.25541	(14020408)				
482869.80	3729713.40	0.25900	(14020408)	482887.24		
3729684.64	0.26063	(14020408)				
482852.85	3729760.72	0.22607	(14020408)	482885.41		
3729702.96	0.23501	(14020408)				

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```

*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***           11/08/22
*** AERMET - VERSION 16216 ***   ***
***           13:34:24

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS)

RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3

**

NETWORK

GROUP ID	OF TYPE	GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL,
ZFLAG)				
ALL	1ST HIGHEST VALUE IS		0.37161 AT (482825.50, 3729642.50, 452.10,
529.60,	0.00) GC UCART1			
	2ND HIGHEST VALUE IS		0.35236 AT (482775.50, 3729767.50, 450.30,
529.60,	0.00) GC UCART1			
	3RD HIGHEST VALUE IS		0.34490 AT (482750.50, 3729767.50, 449.50,
529.60,	0.00) GC UCART1			
	4TH HIGHEST VALUE IS		0.34273 AT (482850.50, 3729592.50, 453.00,
529.60,	0.00) GC UCART1			
	5TH HIGHEST VALUE IS		0.34260 AT (482850.50, 3729617.50, 452.50,
529.60,	0.00) GC UCART1			
	6TH HIGHEST VALUE IS		0.34201 AT (482800.50, 3729717.50, 450.80,
529.60,	0.00) GC UCART1			
	7TH HIGHEST VALUE IS		0.33786 AT (482775.50, 3729717.50, 450.50,
529.60,	0.00) GC UCART1			
	8TH HIGHEST VALUE IS		0.33462 AT (482750.50, 3729792.50, 449.20,

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```
529.60,    0.00)  GC  UCART1
              9TH HIGHEST VALUE IS      0.33416 AT (  482800.50,  3729667.50,  451.40,
529.60,    0.00)  GC  UCART1
              10TH HIGHEST VALUE IS     0.33101 AT (  482875.50,  3729592.50,  452.80,
529.60,    0.00)  GC  UCART1
```

```
*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
```


APPENDIX B-2

```

*** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment ***       11/08/22
*** AERMET - VERSION 16216 ***   ***
***       13:34:24

```

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```

*** MODELOPTs:   RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

```

** CONC OF DPM          IN MICROGRAMS/M**3

**

                                DATE
NETWORK
GROUP ID                      AVERAGE CONC      (YYMMDDHH)          RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG)        OF TYPE  GRID-ID
- - - - -
- - - - -

ALL      HIGH    1ST HIGH VALUE IS      1.36567  ON 14072506: AT ( 482800.50, 3729717.50,
450.80,   529.60,   0.00)  GC  UCART1

```

```

*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR

```

APPENDIX B-2

```
*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Projects\Villagio Apartments
\Villagio Apartment *** 11/08/22
*** AERMET - VERSION 16216 *** ***
*** 13:34:24
```

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```
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
```

```
*** Message Summary : AERMOD Model Execution ***
```

```
----- Summary of Total Messages -----
```

```
A Total of          0 Fatal Error Message(s)
A Total of          4 Warning Message(s)
A Total of        2028 Informational Message(s)

A Total of        43824 Hours Were Processed

A Total of          978 Calm Hours Identified

A Total of        1050 Missing Hours Identified ( 2.40 Percent)
```

```
***** FATAL ERROR MESSAGES *****
*** NONE ***
```

```
***** WARNING MESSAGES *****
ME W186      871      MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50
ME W187      871      MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450     17521      CHKDAT: Record Out of Sequence in Meteorological File at:
14010101
MX W450     17521      CHKDAT: Record Out of Sequence in Meteorological File at: 2 year
gap
```

```
*****
```

APPENDIX B-2

```
*** AERMOD Finishes Successfully ***  
*****
```

APPENDIX B-2

HARP2 - HRACalc (dated 22118) 11/8/2022 3:25:16 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: Cancer

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

APPENDIX B-2

Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\Users\Tyler Klassen\Dropbox (MD Acoustics)\MD Team\Active Jobs\0002 -
RK\00022202_Villagio Apts HRA\Report\HARP\VillagioCancerRisk.csv

HRA ran successfully

Mitigation Monitoring and Reporting Program (MMRP)

Project: Villagio Villas - Plot Plan PLN21-0375, General Plan Amendment PLN21-0376 and Zoning Code Amendment PLN21-0377

Date: May 20, 2024

Impact Category/ Mitigation Measures	Implementation Timing	Responsible Monitoring Party	Monitoring/ Reporting Method	Compliance Verification
AIR QUALITY MM-AQ-1 Air Filtration Units. Prior to issuance of an occupancy permit, the applicant shall be required to install high efficiency MERV filters in the intake of residential ventilation systems. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur: a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units. b) For rental units, the owner/property manager shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open. c) For any resident-owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.	Prior to occupancy	Developer/City Planning Department	Written proof of install prior to issuance of occupancy	
BIOLOGICAL RESOURCES MM-BIO-1: Nesting Bird Survey. If grading or site disturbance including demolition of existing structures is to occur during the nesting season (February 15 – August 31), a nesting bird survey (including raptors) shall be conducted within ten (10) days prior to grading permit issuance or any site clearing or demolition. This survey shall be conducted by a qualified biologist holding a Memorandum of Understanding (MOU) with Riverside County. If active bird nests are found, avoidance buffers of 1,000 feet for large birds of prey, 500 feet for small birds of prey, and 250 feet for songbirds, decided by CDFW on a case-by-case basis, shall be established and observed. The biologist shall prepare a final letter report that shall be submitted to the City of Menifee Community Development Department for review and approval.	No more than 10 days prior to the start of any ground disturbance (if work is being done from 2/15 to 8/31)	City Planning Department	Written proof of survey prior to issuance of a grading permit	

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<p>MM-BIO-2: Burrowing Owl Survey. A pre-construction survey for burrowing owl (BUOW) shall be conducted no more than 30 days prior to commencement of Project-related ground disturbance to verify that BUOW remain absent from the Project area.</p> <p>If active nests are identified on an implementing Project site during the pre-construction survey, the nests shall be avoided, or the owls actively or passively relocated. To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31), and 160 feet during the non- breeding season.</p> <p>If burrowing owls occupy any implementing Project site and cannot be avoided, active or passive relocation shall be used to exclude owls from their burrows, as agreed to by the City Planning Department and the CDFW. Relocation shall be conducted outside the breeding season or once the young are able to leave the nest and fly. Passive relocation is the exclusion of owls from their burrows (outside the breeding season or once the young are able to leave the nest and fly) by installing one-way doors in burrow entrances. These one-way doors allow the owl to exit the burrow, but not enter it. These doors shall be left in place 48 hours to ensure owls have left the burrow. Artificial burrows shall be provided nearby. The implementing Project area shall be monitored daily for one week to confirm owl use of burrows before excavating burrows in the impact area. Burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible pipe shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.</p> <p>The CDFW shall be consulted prior to any active relocation to determine acceptable receiving sites available where this species has a greater chance of successful long-term relocation. If avoidance is infeasible, then a DBESP would be required, including associated relocation of burrowing owls. If conservation is not required, then owl relocation would still be required following accepted protocols. Take of active nests would be avoided, so it is strongly recommended that any relocation occur outside of the nesting season.</p>	No more than 30 days prior to the start of any ground disturbance	City Planning Department	Written proof of survey prior to issuance of a grading permit	
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<p>NOISE</p> <p>MM-NOI-1 Reduce Potential Project Construction Noise Levels. To reduce potential noise levels from Project construction activities, the Applicant shall implement the following:</p> <p><u>During Construction:</u></p>	Prior to ground disturbing activities	City Engineering/Planning /Building Department	Written proof of wall installation prior to permit issuance	

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<p>MM-NOI-1 Construction Hours. All construction and construction-related activity shall take place between the hours of 6:30 a.m. to 7:00 p.m. Monday through Saturday. Construction shall not take place on Sundays or nationally recognized holidays unless prior approval is obtained from the City Building Official or City Engineer.</p> <p>MM-NOI-2 Public Notice. The developer shall provide public notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.</p> <p>MM-NOI-3 Equipment Mufflers. All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices (e.g., engine shields).</p> <p>MM-NOI-4 Electrical Service. The developer shall establish an electric connection to the site to avoid the use of diesel- and gas-powered generators.</p> <p>MM-NOI-5 Staging Limits. The developer shall locate staging area, generators, and stationary construction equipment as far from adjacent residential units as feasible.</p> <p>MM-NOI-6 Construction Idling Limits. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.</p> <p><u>During Operation:</u></p> <p>MM-NOI-7 Noise Insulation. All construction shall comply with California Title 24 building insulation requirements for exterior walls, roofs, and common separating assemblies (e.g., floor/ceiling assemblies and demising walls), which shall be reviewed by the City prior to issuance of a building permit.</p> <ul style="list-style-type: none"> Interior noise levels due to exterior sources must not exceed a community noise equivalent level (CNEL) or a day-night level (LDN) of 45 dBA, in any habitable room. Party wall and floor-ceiling assembly designs must provide a minimum STC of 50, based on lab tests. Field-tested assemblies must provide a minimum noise isolation class (NIC) of 45. 				

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<ul style="list-style-type: none"> Floor-ceiling assembly designs must provide for a minimum impact insulation class (IIC) of 50, based on lab tests. Field-tested assemblies must provide a minimum FIIIC of 45. Penetrations or openings in sound-rated assemblies must be treated to maintain required ratings. <p>MM-NOI-8 Unit Ventilation. A “windows closed” condition is expected to be required for all residential units within the project site to meet the interior noise standard. To accommodate windows closed conditions, all units shall be equipped with adequate fresh air ventilation, per the requirements of the California Building Standards.</p> <p>MM-NOI-9 Final Noise Study. Prior to issuing building permits, a final interior noise study shall be prepared to determine the necessary STC rating for windows, sliding glass doors, and building shell assemblies and design requirements to ensure that the interior noise standard of 45 dBA CNEL is met for all units.</p> <p>MM-NOI-10 Delivery Limits. The developer shall ensure that all deliveries, loading and unloading activities, and trash pick-up shall be limited to daytime hours only (8:00 a.m. – 10:00 p.m.).</p> <p>MM-NOI-11 Vehicle Idling. Engine idling time for all delivery vehicles and moving trucks shall be limited to 5 minutes or less.</p> <p>MM-NOI-12 Boundary Wall. The developer shall install a CMU block wall along the boundary of the site fronting I-215. The noise barrier wall must be a minimum of 6 feet tall to help shield ground floor areas on the project site from roadway noise along I-215.</p>				