# AGENDA

REGULAR CITY COUNCIL MEETING
COUNCIL CHAMBERS
5000 CLARK AVENUE
LAKEWOOD, CALIFORNIA

January 28, 2014, 7:30 p.m.

**CALL TO ORDER**

**INVOCATION:** Dr. John C. Bonner, Chaplin Emeritus to the City Council

**PLEDGE OF ALLEGIANCE:** Cub Scout Pack 75

**ROLL CALL:** Mayor Steve Croft
Vice Mayor Todd Rogers
Council Member Diane DuBois
Council Member Ron Piazza
Council Member Jeff Wood

**ANNOUNCEMENTS AND PRESENTATIONS:**
Presentation by the Gateway Council of Governments on their Economic Development Website

**ROUTINE ITEMS:**
All items listed within this section of the agenda are considered to be routine and will be enacted by one motion without separate discussion. Any Member of Council may request an item be removed for individual discussion or further explanation. All items removed shall be considered immediately following action on the remaining items.

RI-1 Approval of Minutes of the Meeting held December 10, 2013 and January 14, 2014

RI-2 Approval of Personnel Transactions

RI-3 Approval of Registers of Demands

RI-4 Approval of Agreement for Emergency Water During Disasters With DS Waters of America

RI-5 Approval for Lease of Water Rights to South Montebello Irrigation District

RI-6 Approval of Monthly Report of Investment Transactions

RI-7 Approval of Quarterly Schedule of Investments

RI-8 Approval of Proposition A Fund Exchange and Assignment Agreement

RI-9 Adoption of Resolution No. 2014-1; Amending Resolution Establishing Compensation, Rules and Regulations for Full-time Employees

RI-10 Approval of Agreement for Utility Billing Analysis with Utility Cost Management

**ROUTINE ITEMS:** Continued

RI-11 Adoption of Resolution No. 2014-2; Renewing Municipal Law Enforcement Services Agreement with the County of Los Angeles

**PUBLIC HEARINGS:**

1.1 General Plan Amendment No. 2014-1, Zone Change Case No. 113 and Lot Line Adjustment for the Property Located at 20909-37 Bloomfield Avenue and 12521-12541 Centralia Street, and the Related Mitigated Negative Declaration, Resolution No. 2014-3 and Ordinance No. 2014-1

**LEGISLATION:**

2.1 Second Reading and Adoption of Ordinance No. 2013-10; Amending the Lakewood Municipal Code Pertaining to the Establishment of Industrial Training Facilities

**REPORTS:**

3.1 Annual Review of City Investment Policy

3.2 2014 Lakewood Youth Sports Hall of Fame

## AGENDA
## LAKEWOOD SUCCESSOR AGENCY

1. Approval of Register of Demands

## AGENDA
## LAKEWOOD HOUSING SUCCESSOR AGENCY

1. Approval of Register of Demands

**ORAL COMMUNICATIONS:**

**ADJOURNMENT**

Any qualified individual with a disability that would exclude that individual from participating in or attending the above meeting should contact the City Clerk's Office, 5050 Clark Avenue, Lakewood, CA, at 562/866-9771, ext. 2200; at least 48 hours prior to the above meeting to ensure that reasonable arrangements can be made to provide accessibility to the meeting or other reasonable auxiliary aids or services may be provided.

Copies of staff reports and other writings pertaining to this agenda are available for public review during regular business hours in the Office of the City Clerk, 5050 Clark Avenue, Lakewood, CA 90712

# City Council Agenda

January 28, 2014

## Public Hearing

Item 1.1

Continued

# Casa Madrid 22-Unit Apartment Building

# 20909-20937 Bloomfield Avenue and 12521-12541 Centralia Street

# Lakewood

## Initial Study and Environmental Checklist

January 28, 2014

**City of Lakewood**
**Community Development Department**

5050 Clark Avenue
Lakewood, California 90712
(562) 866-9771

# I. INTRODUCTION

## A. Background

| | |
|---|---|
| Project title: | Casa Madrid 22-Unit Apartment Building |
| Agency requiring checklist: | City of Lakewood<br>5050 Clark Avenue<br>Lakewood, California 90712 |
| Agency contact person: | Paul Kuykendall, AICP<br>Senior Planner<br>(562) 866-9771, extension 2344 |
| Project location: | 20909-20937 Bloomfield Avenue and<br>12521 – 12541 Centralia Street<br>Lakewood, California |
| Name of proponent: | Casa Madrid |
| Proponent's address and phone: | Casa Madrid<br>Attention: Mr. Paul Mir<br>20937 Bloomfield Avenue<br>Lakewood, California 92660 |
| Existing General Plan designations: | Commercial and Medium/High Density Residential |
| Proposed General Plan designation: | Medium/High Density Residential |
| Existing Zoning designations: | M-F-R (Multiple-Family Residential) and<br>C-4 (General Commercial) |
| Proposed Zoning designations: | PD-MF (Multiple Family Dwelling Unit Planned Development) and M-F-R |

## B. Introduction to the Environmental Review Process

California Environmental Quality Act (CEQA) Guidelines Section 15152 permits tiering of environmental analyses for separate but related projects including plans and development projects. According to Guidelines Section 15152(b), tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to a site specific EIR or negative declaration. In the case of this project, the environmental analysis was tiered off of the City's November 1996 Final Master EIR for its Comprehensive General Plan (the "Master EIR"). The analysis and conclusion of the Master EIR were validated in the Master Environmental Assessment ("MEA") prepared in accordance with

Section 15169 of the CEQA Guidelines as amended, and approved by the Lakewood City Council in September 25, 2007. In accordance with Guidelines Section 15152(f), a negative declaration shall be required when the Initial Study shows that there is no substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment or the Initial Study identifies potentially significant effects but revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and there is no substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment. This Initial Study examined whether the project would result in any new project-specific environmental impacts not previously addressed in the General Plan EIR. This Initial Study found that a significant environmental impact may occur due to the proposed action, but that such impact could be reduced to less than significance with implementation of the mitigation measure identified below. Therefore, a Mitigated Negative Declaration will be circulated for public review for a period of not less than 20 days in accordance with Public Resources Code Section 21091.(b).

## C. Project Description and Location

The subject site is generally located at the northwest corner of Bloomfield Avenue and Centralia Street. The site is the former location of a Texaco gas station. All improvements were removed in 1996 and the site has remained vacant since that time. Immediately to the north and west is the Casa Madrid apartment complex. To the south, across Centralia Street, is a commercial center in the C-3 zone. To the east, across Bloomfield Avenue, is a small commercial strip center in the C-1 zone. Cater-corner from the site are single-family residences in the R-1 (Single-Family Residential) zone (see Vicinity Map and Aerial View). Table 1 below lists the land uses and zoning designations for the site and the surrounding properties.

Table 1: Land Uses and Zoning of Surrounding Properties.

| AREA | EXISTING LAND USE | ZONE DESIGNATION |
|---|---|---|
| Subject Site | vacant | C-4 (General Commercial) |
| North | apartments | M-F-R (Multi-Family Residential) |
| East | commercial center | C-1 (Neighborhood Commercial) |
| South | commercial center | C-3 (Intermediate Commercial) |
| West | apartments | M-F-R (Multi-Family Residential) |

Other public agencies whose approval for this project may be required includes the City of Lakewood Building and Safety Section of the Community Development Department, the Los Angeles County Fire Department, the Los Angeles County Sanitation District, and the Los Angeles County Department of Public Works.

## D. Environmental Findings

While the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been added to the project. The possible impacts and related mitigation are as follows:

Air Quality:

Impact: Heavy construction is a source of fugitive dust and exhaust emissions that could have a temporary impact on local air quality. Preparation of the site for building construction could produce two forms of air contaminants; exhaust emissions from construction equipment and fugitive dust generated as a result of soil movement and vehicle activities on unpaved portions of the site. However, potential impacts will be reduced to less than significant levels by implementation of the mitigation measures listed below.

**Mitigation Measures**

1. All construction equipment shall comply with SCAQMD regulations, including Rule 402, which specifies that there be no dust impacts offsite sufficient to cause a nuisance, and SCAQMD Rule 403, which restricts visible emissions from construction.

2. Soil shall be moistened prior to grading activities.

3. Exposed soil surfaces shall be watered at least once each day to keep soil moist. During very dry weather or periods of high winds, exposed surfaces shall be watered at least twice a day or as often as necessary in order to maintain a surface crust and prevent release of visible dust clouds from the subject site.

4. Treat any area that will be exposed for extended periods with a soil conditioner to stabilize soil or temporarily plant with vegetation.

5. Wash mud-covered tires and under carriages of trucks and equipment leaving the construction site.

6. Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles, or mud, which would otherwise be carried off by trucks departing project sites.

7. Securely cover loads of dirt with a tight fitting tarp on any truck entering or leaving the construction site to deliver soil or to dispose of excavated soil.

8. Stop grading during periods when winds exceed 25 miles per hour.

9. Provide for permanent sealing of all graded areas, as applicable, at the earliest practicable time after soil disturbance.

10. Install a temporary, slatted, chain link fence or similar barrier such as a cloth windscreen, around the perimeter of the site to reduce exposure of neighboring residences and commercial sites to prolonged windblown dust.

11. Maintain construction equipment in peak operating condition so as to reduce operation emissions.

12. Use low-sulfur diesel fuel in all equipment.

13. Use electric equipment whenever practicable.

14. Shut off engines when not in use.

## II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

| | | | |
|---|---|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☒ Air Quality | ☐ Biological Resources |
| ☐ Cultural Resources | ☐ Geology / Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards & Hazardous Materials |
| ☐ Hydrology / Water Quality | ☐ Land Use / Planning | ☐ Mineral Resources | ☐ Noise |
| ☐ Population / Housing | ☐ Public Services | ☐ Recreation | ☐ Transportation / Traffic |
| ☐ Utilities / Service | ☐ Mandatory Findings of Significance | | |

**Determination (to be completed by Lead Agency):**

On the basis of this initial evaluation:

I find that the proposed project could not have a significant effect on the environment, and that the project is Categorically Exempt of the California Environmental Quality Act guidelines, as amended. ☐

I find that the proposed project could not have a significant effect on the environment, and a Negative Declaration will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration will be prepared. ☒

I find that the proposed project may have a significant effect on the environment, and an Environmental Impact Report (EIR) is required. ☐

I find that the proposed project may have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR Report is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Sonia Dias Southwell, AICP, Director of Community Development — January 28, 2014 Date

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## III. ENVIRONMENTAL CHECKLIST AND DISCUSSION OF CHECKLIST ISSUES

I. AESTHETICS. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Have a substantial adverse effect on a scenic vista? (Source #(s): 1, 6 ) | ☐ | ☐ | ☒ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees rock outcroppings, and historic buildings within a state scenic highway? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? ( 1,6,8 ) | ☐ | ☐ | ☒ | ☐ |

a-d) The proposed project will not have a substantial adverse effect on any scenic vistas. The project is located within a highly urbanized area, and there are no scenic vistas in the vicinity of the project site. There are no scenic resources on the project site; therefore, the project will not have an impact on scenic resources. There are no historic buildings within the vicinity of the proposed project. There are already residential developments (single-family) to the north, east, southeast, and west of the subject site. The project site is vacant. The proposed project is for one 22-unit apartment building, three stories in height. The project was approved by the City's Development Review Board on September 25, 2013 (DRB Case No. 8019).

| | | | | |
|---|---|---|---|---|
| e) Have economic changes associated with the proposed project which may result in physical changes to the environment that would result in a substantial degradation to the existing character or quality of its surroundings, or which would otherwise result in significant urban decay? ( 1 ) | ☐ | ☐ | ☒ | ☐ |

The site has been vacant since 1996. The prior use of the site was a Texaco gas station. All improvements, including underground storage tanks were removed by that time. The proposed use will alleviate potential blight at this site by redeveloping the site with new residential buildings and associated off-street parking, landscaping, hardscape and supporting utilities. The

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

proposal is an improvement to the site and it is not anticipated to degrade the existing character or quality of its surroundings.

**Mitigation Measures**

1. None required.

II. AGRICULTURE AND FORESTRY RESOURCES. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agriculture use? ( 2,3 ) | ☐ | ☐ | ☒ | ☐ |

There is no farmland on or near the vicinity of the subject site; therefore the project will not result in the conversion of any farmland, as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation, to a non-agricultural use.

| | | | | |
|---|---|---|---|---|
| b) Conflict with existing zoning for agricultural use or a Williamson Act contract? ( 2,3,6 ) | ☐ | ☐ | ☒ | ☐ |

The General Plan designation for the subject site is Medium/High Density Residential and Commercial. The proposed project is for a 22-unit apartment building. The project will be compatible with Lakewood's Housing Element which requires a density of not less than 20 units per acre and not more than 30 units per acre on lots greater than 25,000 square feet in area. There will be no conflict with any contracts entered into pursuant to Section 51200 et seq. of the California Government Code (also known as the Williamson Act).

| | | | | |
|---|---|---|---|---|
| c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? ( 1,6,10 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

There is no forest land and no timberland within, or adjacent to, the City of Lakewood. The proposed project will have no impact on forest land or timberlands.

| | | | | |
|---|---|---|---|---|
| d) Result in the loss of forest land or conversion of forest land to non-forest use? (1,6,10) | ☐ | ☐ | ☒ | ☐ |

There is no forest land and no timberland within, or adjacent to, the City of Lakewood. The proposed project will have no impact on forest land or timberlands.

| | | | | |
|---|---|---|---|---|
| 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? ( 1,6,10 ) | ☐ | ☐ | ☒ | ☐ |

Since there is no farmland or agricultural land at the subject site to begin with, the project will not result in the conversion of any farmland or agricultural land, to a non-agricultural use.

**Mitigation Measures**

1. None required.

III. AIR QUALITY. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The subject site is designated by the City of Lakewood's Comprehensive General Plan for Medium/High Density Residential uses and the subject property is zoned as M-F-R (Multiple-Family Residential) and C-4 (General Commercial). The project does not have the characteristics to exceed the level of development anticipated by the General Plan or the General Plan MEIR; therefore the project will not result in an increase in potential air quality impacts associated with development of the site, conflict or obstruct the implementation of any applicable air quality plan based on anticipated development of the site. The project may require approval from the Southern California Air Quality Management District (SCAQMD).

| | | | | |
|---|---|---|---|---|
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Thresholds of significance for air quality standards are contained in the General Plan MEIR.

| | | | | |
|---|---|---|---|---|
| c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ( 1,6 ) | ☐ | ☒ | ☐ | ☐ |

Heavy construction is a source of fugitive dust and exhaust emissions that could have a temporary impact on local air quality. Preparation of the site for building construction could produce two forms of air contaminants; exhaust emissions from construction equipment and fugitive dust generated as a result of soil movement and vehicle activities on unpaved portions of the site. However, potential impacts will be reduced to less than significant levels by implementation of the mitigation measures listed below.

| | | | | |
|---|---|---|---|---|
| d) Expose sensitive receptors to substantial pollutant concentrations? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

There is one sensitive receptor within 1,000 feet of the site. A portion of Melbourne Elementary School is located approximately 900 feet southwest of the site at 21314 Claretta Avenue within the City of Lakewood. A portion of that school that falls within the 1,000-foot radius buffer and consists of a portion of a parking lot and 5,060 square feet of a 428,000 square-foot playground. Since the affected playground represents approximately 1.25% of the total playground and school-aged children spend the majority of their school hours indoors, the construction activities will have a less than significant effect on sensitive receptors.

| | | | | |
|---|---|---|---|---|
| e) Create objectionable odors affecting a substantial number of people? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not create any objectionable odors that might otherwise affect a substantial number of people as the project is for a residential condominium development. Trash carts will be kept inside the garage for each residence until trash day when said carts are moved by the residents to designated areas where they are emptied by the City's trash disposal company.

**Mitigation Measures**

The mitigation measures listed below are required by the Master EIR and are sufficient to reduce potential impacts associated with the proposed project to less than significant levels:

1. All construction equipment shall comply with SCAQMD regulations, including Rule 402, which specifies that there be no dust impacts offsite sufficient to cause a nuisance, and SCAQMD Rule 403, which restricts visible emissions from construction.

2. Soil shall be moistened prior to grading activities.

3. Exposed soil surfaces shall be watered at least once each day to keep soil moist. During very dry weather or periods of high winds, exposed surfaces shall be watered at least twice a day or as often as necessary in order to maintain a surface crust and prevent release of visible dust clouds from the subject site.

4. Treat any area that will be exposed for extended periods with a soil conditioner to stabilize soil or temporarily plant with vegetation.

5. Wash mud-covered tires and under carriages of trucks and equipment leaving the construction site.

6. Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles, or mud, which would otherwise be carried off by trucks departing project sites.

7. Securely cover loads of dirt with a tight fitting tarp on any truck entering or leaving the construction site to deliver soil or to dispose of excavated soil.

8. Stop grading during periods when winds exceed 25 miles per hour.

9. Provide for permanent sealing of all graded areas, as applicable, at the earliest practicable time after soil disturbance.

10. Install a temporary, slatted, chain link fence or similar barrier such as a cloth windscreen, around the perimeter of the site to reduce exposure of neighboring residences and commercial sites to prolonged windblown dust.

11. Maintain construction equipment in peak operating condition so as to reduce operation emissions.

12. Use low-sulfur diesel fuel in all equipment.

13. Use electric equipment whenever practicable.

14. Shut off engines when not in use.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| IV. BIOLOGICAL RESOURCES: Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project site is currently vacant and is located in a highly urbanized area. There are no known species on the project site that have been identified as a candidate, sensitive, or special status species in local or regional plans, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service that would be adversely affected, either directly or indirectly, by the project.

| | | | | |
|---|---|---|---|---|
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project site is currently vacant and is located in a highly urbanized area. The proposed project will not have a substantial impact on any riparian habitat or other sensitive natural community. The project will not impede or alter the flow of any waterways.

| | | | | |
|---|---|---|---|---|
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project site is currently vacant and is located in a highly urbanized area. There are no federally protected wetlands that would be impacted by the proposed project, as defined by Section 404 of the Clean Water Act, within the City.

| | | | | |
|---|---|---|---|---|
| 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 | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

native nursery sites? ( 1,6 )

The project site is currently vacant and is located in a highly urbanized area. The project will not interfere with the movement of any native resident or migratory fish or wildlife species. The project will not affect any established wildlife corridors. The project will not impede the use of native nursery sites.

| | | | | |
|---|---|---|---|---|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not conflict with any local policies or ordinances, including those goals found in the Conservation Element of the City of Lakewood General Plan.

**Mitigation Measures**

1. None required.

V. CULTURAL RESOURCES. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not create a substantial adverse change to any historical resource because no such resources exist on or in the vicinity of the project site.

| | | | | |
|---|---|---|---|---|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The site is vacant. There will be no substantial adverse changes to any known archaeological resources, as a result of the proposed project.

| | | | | |
|---|---|---|---|---|
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The site is vacant. There will be no substantial adverse changes to any known paleontological resources, site characteristics, and/or unique geological features as a result of the project.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Disturb any human remains, including those interred outside of formal cemeteries? ( 1,6 ) | ☐ | ☐ | ☐ | ☒ |

The proposed project is located on a vacant lot in an urbanized area. The proposed project will not disturb the location of any known human remains.

**Mitigation Measures**

1. None required.

VI. GEOLOGY AND SOILS. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | ☐ | ☐ | ☒ | ☐ |
| (i) Rupture of a known earthquake Fault as Delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |
| (ii) Strong seismic ground shaking? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |
| (iii) Seismic-related ground failure, including liquefaction? ( 4 ) | ☐ | ☐ | ☒ | ☐ |
| iv) Landslides? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The region has many active and potentially active faults, and the project has the potential to be impacted by earthquakes and related hazards - mainly from ground shaking, which is not uncommon throughout the region. The site is not within an Alquist-Priolo Special Study zone. There are no known active faults within the Lakewood, and the closest active fault is the Newport-Inglewood Fault Zone, located about four miles southwest of the City. The project will be subject to building code requirements for earthquake safety. Therefore, significant impacts related to ground shaking and seismic activity are not anticipated. Lakewood is virtually flat, and the project site is located within a developed urban area; thus the project site will not be substantially affected by landslides or mudflows.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Result in substantial soil erosion or the loss of topsoil? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Although the project will involve substantial grading or excavation activities, the site is flat with negligible slope. The applicant will be required to submit an erosion control plan in connection with submittal of grading plans as part of the building plan check process. There will not result in substantial erosion or the loss of topsoil.

| | | | | |
|---|---|---|---|---|
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project is not located on a geological unit or soil in such a way that would cause the soil to become unstable, or result in any other geologic defect.

| | | | | |
|---|---|---|---|---|
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Although the project may be located in an area recognized as having expansive soil, the project will be subject to building code requirements for development in areas having expansive soil, if applicable.

| | | | | |
|---|---|---|---|---|
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The subject building will be served by a sanitary sewer system. The project will not involve any new installation, or connection, to any septic tank or alternative waste water disposal system.

**Mitigation Measures**

1. None required.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| VII. GREENHOUSE GAS EMISSIONS. Would the project: | | | | |
| a) Generate greenhouse emissions, either directly or indirectly, that may have a significant impact on the environment? ( 1,6,10 ) | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ( 1,6,10 ) | ☐ | ☐ | ☒ | ☐ |

In September 2006, the California legislature approved Assembly Bill 32 (AB 32) thereby adopting the California Global Warming Solutions Act (CGWSA) by amending Section 38500 of the Health and Safety Code. The central goal of AB 32 is to reduce greenhouse gas (GHG) emissions to 1990 levels by the year 2020. On or before January 1, 2011, the California Air Resources Board (CARB) must adopt regulations that limit GHG emissions by establishing emission reduction measures utilizing the most technologically feasible, most cost-effective reduction measures. These regulations became effective on January 1, 2012.

The project includes the construction of a three-story, 22-unit apartment building. A greenhouse gas analysis was prepared for this project (see the Greenhouse Gas Analysis in Appendix "A"). The analysis found that the project will have a less than significant impact as a result of greenhouse gas emissions. The project will have a less than significant impact on applicable plans, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions.

**Mitigation Measures**

The mitigation measures listed below are required to reduce potential impacts from green house gas emissions associated with the proposed project to less than significant levels:

1. None required.

| | | | | |
|---|---|---|---|---|
| VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project does not have the characteristics, which would otherwise result in the transport, use or disposal of significant amounts of hazardous materials. The project will not create a significant hazard to the public or the environment.

| | Potentially Significant Impact | Potentially Significant Unless 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? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project does not have the characteristics, which would otherwise result in the use and/or subsequent release of hazardous materials. Therefore, the project will not create a significant hazard that would result from the accidental release of hazardous materials into the environment.

| | | | | |
|---|---|---|---|---|
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile into the environment? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not emit any hazardous emissions, nor will it involve the handling of significant amounts of hazardous or acutely hazardous materials, substances or waste.

| | | | | |
|---|---|---|---|---|
| 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? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The subject site is not on any list of hazardous materials sites, compiled pursuant to Government Code Section 65962.5.

| | | | | |
|---|---|---|---|---|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? ( 1,6,9 ) | ☐ | ☐ | ☒ | ☐ |

The project site is not located within any airport land use plan and is approximately 2.94 miles northwest of the Los Alamitos Air Base Influence Boundary Area. The project will not create a safety hazard for people residing or working in the project area.

| | | | | |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

( 1,6,9 )

The project site is not located in the vicinity of any private airstrip, thus the project will not create a safety hazard for people residing or working in the project area.

| | | | | |
|---|---|---|---|---|
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will neither impair the implementation of, nor physically interfere with any adopted emergency response plan or evacuation plan.

| | | | | |
|---|---|---|---|---|
| h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands? ( 1,6,10 ) | ☐ | ☐ | ☒ | ☐ |

There are no brush lands or forests in the vicinity of the project, therefore there will not be an increased risk of loss, injury or death from wildfires as a result of this project.

**Mitigation Measures**

1. None required.

IX. HYDROLOGY AND WATER QUALITY. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will be subject to all relevant code requirements related to water quality and will not violate any water quality standards or waste discharge requirements.

| | | | | |
|---|---|---|---|---|
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses or which permits have been granted? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The proposed project will not substantially deplete groundwater supplies nor will it introduce any new conditions that would further interfere with groundwater recharge that might otherwise create a net deficit in aquifer volumes or a lowering of the local groundwater table. Storm water systems will comply with current code requirements for retention and/or detention of storm water. Furthermore, additional landscape planters will be created throughout the development.

| | | | | |
|---|---|---|---|---|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off site? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not substantially alter any drainage patterns in a manner that would result in substantial erosion or siltation on or off site.

| | | | | |
|---|---|---|---|---|
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? ( 1,5 ) | ☐ | ☐ | ☒ | ☐ |

Coyote Creek runs 780 feet east of the site and the San Gabriel River is 1.7 miles west of the site. There are no streams or rivers located in the immediate vicinity of the site. The project will not substantially alter any drainage patterns in a manner that would result in flooding on or off site.

| | | | | |
|---|---|---|---|---|
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? ( 1,5 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project will not create or contribute to water runoff in a manner that would exceed the capacity of existing or planned storm water drainage systems, nor will it provide substantial additional sources of polluted runoff. The project may be subject to SUSMP requirements, which would reduce impacts from storm water runoff.

| | | | | |
|---|---|---|---|---|
| f) Otherwise substantially degrade water quality? ( 1,5 ) | ☐ | ☐ | ☒ | ☐ |

The project will be subject to all relevant regulations related to water quality. Water quality could not be substantially degraded by the proposed project.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? ( 1,5,6 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project does not involve the construction or the relocation of any dwelling units. No housing will be placed within a 100-year flood hazard zone.

| | | | | |
|---|---|---|---|---|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? ( 1,5,6 ) | ☐ | ☐ | ☒ | ☐ |

Although the project will be located within a 100-year flood hazard zone, the project will not impede or redirect projected flood flows in a manner that would alter affected properties with the flood zone, nor would the project result in new or increased properties within the flood zone.

| | | | | |
|---|---|---|---|---|
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? ( 1,5,6 ) | ☐ | ☐ | ☒ | ☐ |

The project site is located in flood zone "X," which is a zone of low flood risk. The project will not cause any persons or structures to be exposed to significant risk of loss, injury, or death caused by any flooding.

| | | | | |
|---|---|---|---|---|
| j) Inundation by seiche, tsunami, or mudflow? ( 1,5 ) | ☐ | ☐ | ☒ | ☐ |

The closest major bodies of water are Coyote Creek which runs 780 feet east of the site and the San Gabriel River which is 1.7 miles west of the site. Neither waterway poses a threat to the project with regards to seiche or tsunami activity. Lakewood is a virtually flat and developed urban area, therefore the project will not be significantly impacted by any mudflow.

**Mitigation Measures**

1. None required.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| X. LAND USE AND PLANNING. Would the project: | | | | |
| a) Physically divide an established community? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project will not disrupt or divide the physical arrangement of an established community, including a low income or minority community.

| | | | | |
|---|---|---|---|---|
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? ( 1,5,6 ) | ☐ | ☐ | ☒ | ☐ |

The General Plan designation for the subject site is Medium/High Density Residential and Commercial. The proposed project is for a 22-unit apartment building. The project will be compatible with Lakewood's Housing Element which requires a density of not less than 20 units per acre and not more than 30 units per acre on lots greater than 25,000 square feet in area. The site is zoned M-F-R (Multiple-Family Residential) and C-4 (General Commercial). The applicant proposes to change the zoning to PD-MF (Multiple Family Dwelling Unit Planned Development) which will modify some of the development standards of the M-F-R zone to better accommodate various features of the project, but will remain in compliance with established minimum and maximum densities. The project, therefore, will present no conflict with the General Plan or the Zoning Map.

| | | | | |
|---|---|---|---|---|
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Lakewood is a fully urbanized area, with no applicable habitat conservation plans or natural community conservation plans that the project would otherwise conflict with.

**Mitigation Measures**

1. None required.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| XI. MINERAL RESOURCES. Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not 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 of California.

| | | | | |
|---|---|---|---|---|
| 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? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

There are no mineral recovery sites delineated by the City of Lakewood General Plan, therefore, the proposed project will not result in the loss of such sites.

**Mitigation Measures**

1. None required.

| | | | | |
|---|---|---|---|---|
| XII. NOISE. Would the project: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? ( 1,6,7 ) | ☐ | ☐ | ☒ | ☐ |

The project will not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Periodic increases in ambient noise may occur during the demolition and construction phase; however, because these increases would be temporary, they are considered to be less than significant. LMC Section 8019 establishes hours of construction, which are 7:00 a.m. to 7:00 p.m., Mondays through Saturdays, and 9:00 a.m. to 7:00 p.m. on Sundays. This project will not be exempt from Section 8019 of the Lakewood Municipal Code. After completion, the project will not result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies).

| | | | | |
|---|---|---|---|---|
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

During construction, the project may result in the exposure of persons of ordinary sensitivity to groundborne vibrations or groundborne noise levels generated by heavy construction equipment. Such equipment, however, will be used on-site only temporarily and will not result in excessive permanent groundborne vibration or groundborne noise levels. There are existing apartment units adjacent to the construction site. After the construction phase is completed, this project will not have the characteristics which would otherwise result in excessive groundborne vibration or groundborne noise levels. LMC Section 8019 establishes hours of construction, which are 7:00 a.m. to 7:00 p.m., Mondays through Saturdays, and 9:00 a.m. to 7:00 p.m. on Sundays. This project will not be exempt from Section 8019 of the Lakewood Municipal Code.

| | | | | |
|---|---|---|---|---|
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Audible permanent noises associated with the project may include vehicular traffic arriving and leaving the project site. However, vehicles entering and leaving the site use existing driveways. There are 192 existing units on-site, including a leasing office and a model unit and 22 additional units will bring the total to 214 units, or an increase of 10%. The site is served by four driveways. Assuming equal distribution of trips among the four driveways, there will be a trip increase of 2.5% at each driveway, which is a less than significant increase in traffic and associated noise. Sounds within the proposed buildings will not negatively impact the surrounding properties.

| | | | | |
|---|---|---|---|---|
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Periodic increases in ambient noise may occur during the demolition and construction phase; however, because these increases would be temporary, they are considered to be less than significant. LMC Section 8019 establishes hours of construction, which are 7:00 a.m. to 7:00 p.m., Mondays through Saturdays, and 9:00 a.m. to 7:00 p.m. on Sundays. This project shall comply with LMC Section 8019.

| | | | | |
|---|---|---|---|---|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ( 1,6,9 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The project site is not located within any airport land use plan and is approximately 2.94 miles northwest of the Los Alamitos Air Base Influence Boundary Area and 65 Community Noise Equivalency Level (CNEL) boundaries. The project will not expose any persons residing in the area to excessive noise levels and does not have the characteristics that would expose additional persons to excessive noise levels.

| | | | | |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ( 1,6,9 ) | ☐ | ☐ | ☒ | ☐ |

There are no private airstrips in the City of Lakewood, therefore the project will not expose any persons residing or working in the area to excessive noise levels.

**Mitigation Measures**

1. None required.

XIII. POPULATION AND HOUSING. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or directly for example, through extension of roads or other infrastructure? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The site is currently vacant. The 2010 United State Census estimates that there are 3.10 persons per dwelling unit in Lakewood. The site will be developed with 22 apartment units. Assuming each dwelling unit accommodates 3.10 persons, there would be 68 persons living on the property. The site area will be about 0.78 acres in area after completion of a lot line adjustment, which yields an average density of 87 persons per acre. The housing element establishes a maximum density of this site at 30 units per acre, or 24 units. The proposed density will be less than the maximum assumed population density. Therefore, the project will not result in substantial population growth.

| | | | | |
|---|---|---|---|---|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The proposed project will not displace any existing housing, therefore the project will not require the construction or relocation of any dwelling units.

| | | | | |
|---|---|---|---|---|
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Since the site is vacant, no existing housing will be displaced, therefore the project will not displace any persons. It is not necessary to relocate any persons, nor will it be necessary to construct any replacement housing as a result of this project.

**Mitigation Measures**

1. None required.

XIV. PUBLIC SERVICES.

| | | | | |
|---|---|---|---|---|
| a) 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 would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: ( 1,8 ) | ☐ | ☐ | ☒ | ☐ |
| i) Fire Protection? | ☐ | ☐ | ☒ | ☐ |
| ii) Police Protection? | ☐ | ☐ | ☒ | ☐ |
| iii) Schools? | ☐ | ☐ | ☒ | ☐ |
| ii) Parks? | ☐ | ☐ | ☒ | ☐ |
| iii) Other public facilities? | ☐ | ☐ | ☒ | ☐ |

The project is already served by adequate fire protection. Fire Station No. 34 is located at 21207 Norwalk Boulevard, which is about 3,200 feet west of the subject site by travel distance. Two (2) more engine companies are available within a 4-5 minute response time. Moreover, the

project will be designed in accordance with all applicable Fire Codes and regulations. Law enforcement services for the City of Lakewood are provided by the Los Angeles County Sheriff's Department. The Lakewood Sheriff's Station is located at 5130 Clark Avenue, 4.5 miles west of the subject site. Response time to the site is less than five minutes for an emergency situation. The project site is located within the ABC Unified School District. According to the ABC Unified School District website, the schools closest to the project site are:

Palms Elementary
12445 E. 207th Street
Lakewood, California

Tetzlaff Middle School
12352 Del Amo Boulevard
Cerritos, CA

Artesia High School
12108 Del Amo Boulevard
Lakewood, California

The project will generate property taxes that are used in part to pay for schools, parks and other public facilities. In addition, school fees must be paid prior to the issuance of building permits as required by the ABC Unified School District. A park and recreation fee must be paid prior to final approval of the project. The proposed project will not have a significant impact on these facilities.

**Mitigation Measures**

1. None required.

XV. RECREATION.

| | | | | |
|---|---|---|---|---|
| a) Would the project increase the use of existing neighborhood and regional parks such that substantial physical deterioration of the facility would occur or be accelerated? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not result in a significant demand on parks or other recreational facilities and therefore will not substantially result in, or substantially increase the deterioration of any existing or proposed park facilities. A park and recreation fee must be paid prior to final approval of the project.

| | Potentially Significant Impact | Potentially Significant Unless 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? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

Each apartment unit will have at least one private open space attached to it. Private opens pace may take the form of a terrace, patio, or balcony. Square footage ranges from 65 to 295 square feet per apartment unit. Common open space for this project consists of a large central courtyard, an exercise room, and two community rooms. Common open space may take the form of active and passive. Active open space is intended for tenant activities and gathering, while passive opens space primarily supports landscape materials. The development will include landscaped common areas that will include passive and active open space areas as well as pedestrian walkways. There will be approximately 9,003 square feet of common open space and 2,877 square feet of private open space. The combined total of common and private open space is about 11,880 square feet. This averages to approximately 540 square feet of open space per apartment unit.

**Mitigation Measures**

1. None required.

XVI. TRANSPORTATION / TRAFFIC. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? ( 1,6,9 ) | ☐ | ☐ | ☒ | ☐ |
| b) Exceed, either individually or cumulatively, a level of service standards established by the county congestion management agency for designated roads and highways? ( 1,6,8 ) | ☐ | ☐ | ☒ | ☐ |

a-b) A traffic analysis was prepared for this project to determine if the project would have any impacts relating to traffic and capacity ratios at key intersections (see the "Traffic Impact Analysis" in Appendix "B"). The traffic impact analysis studied the intersection of Bloomfield Avenue and Centralia Street. Turning movement counts were conducted at this intersection. The analysis examined existing, existing plus the project, future pre-project, and post-project

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

conditions. The increase in trips was compared to the City of Lakewood's thresholds of significance. The traffic impact analysis found that the proposed project will not result in any significant traffic impacts. As a result, the traffic impact analysis concluded that no mitigation measures were required. The project will not individually or cumulatively affect level of service standards under the Congestion Management Program. The traffic impact analysis was reviewed and approved by the City of Lakewood's traffic engineering consultant.

| | | | | |
|---|---|---|---|---|
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project does not propose to directly nor indirectly, change air traffic patterns. The project will not create any safety risks with regards to air traffic.

| | | | | |
|---|---|---|---|---|
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project does not include design features such as sharp curves or dangerous intersections, or incompatible uses. The project will result in the closure of four extraneous driveway aprons in close proximity to the Bloomfield/Centralia intersection. As noted on page 11 of the attached Traffic Impact Analysis, the closure of those four driveways will provide traffic operational benefits for the adjacent street system.

| | | | | |
|---|---|---|---|---|
| d) Result in inadequate emergency access? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project will not result in inadequate emergency access. As a part of the building plan check process, the project will be reviewed by the Los Angeles County Fire Department.

| | | | | |
|---|---|---|---|---|
| e) Result in inadequate parking capacity? ( 1,6,7,8 ) | ☐ | ☐ | ☒ | ☐ |

Lakewood Municipal Code Section 9490.T.2 requires two parking spaces for each dwelling unit with two bedrooms and 2½ spaces for each unit with three bedrooms, plus an additional 10% of the total off-street parking facilities for guest parking. The Building Code also requires that 2% of the total number of assigned parking spaces be designated for accessible parking under the Americans with Disabilities Act (ADA). The project will have 20 two-bedroom units which require 40 spaces and two three-bedroom units which require five parking spaces, for a total of 45 parking spaces. An additional 10% for visitor parking adds to a total of 50 required parking

spaces. The project will also result in the removal of 27 parking spaces for the existing Casa Madrid project. The applicant has included 27 new parking spaces as part of this project in nearly the same location as the spaces they are replacing.

The 50 parking spaces required for the new apartments and the 27 Casa Madrid replacement spaces totals 77 required parking spaces. The parking garage will have 63 parking spaces within the parking garage. Of those 63 covered spaces, 14 spaces are accessed directly from the driveway along the west side of the building. The remaining covered parking spaces are accessed from an opening adjacent to the driveway at the north side of the building. There are also 14 uncovered parking spaces which are accessed directly from the driveway along the north side of the building. Two parking spaces will be assigned for each of the new apartments. Two of the parking spaces in the parking garage will be ADA compliant. One ADA parking space is for guest, while the other will remain unassigned unless a disabled tenant moves in and requires that parking space. Table 6 below identifies the parking spaces required and provided for this project.

| | | | | |
|---|---|---|---|---|
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ( 1,7,8 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project will not conflict with any adopted policies, plans, or programs supporting alternative transportation.

**Mitigation Measures**

1. None required.

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

| | | | | |
|---|---|---|---|---|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will not generate wastewater that might exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board. The project site will be served by the Golden State Water Company.

| | | | | |
|---|---|---|---|---|
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The proposed project will not require the construction of any off-site water or wastewater treatment facilities. The developer will be responsible for extending water service onto the site. The developer will install a sewer main line on- and off-site to connect the proposed development with a trunk sewer line. The project will be reviewed in light of current and projected wastewater capacities. Any infrastructure improvements or expansions will be the financial responsibility of the developer. Installation and operation of the proposed water and wastewater improvements will not cause any significant environmental effects.

| | | | | |
|---|---|---|---|---|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project will not require construction of new off-site storm water drainage facilities. The project will be subject to any recommended SUSMP conditions as identified during the building plan check process.

| | | | | |
|---|---|---|---|---|
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The existing water system has sufficient capacity to accommodate the proposed project. The applicant may be required to provide a will-serve letter for this project from the Golden State Water Company.

| | | | | |
|---|---|---|---|---|
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

A Master Environmental Impact Report (MEIR) was prepared as part of the 1996 General Plan, and a Master Environmental Assessment (MEA) was adopted on September 25, 2007. For both of these documents, comments were solicited from various agencies, including Los Angeles County Sanitation District as part of the public review process prior to adoption of the MEIR and the MEA. The project will not individually or cumulatively exceed the environmental thresholds established by the MEIR or the MEA. The Los Angeles County Sanitation District has issued a will-serve letter for this project.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The City's Public Works Department, working in conjunction with the City's designated trash disposal contractor, has determined that existing solid waste disposal resources are able to accommodate the project's solid waste disposal needs.

| | | | | |
|---|---|---|---|---|
| g) Comply with federal, state, and local statutes and regulations related to solid waste? ( 1,6 ) | ☐ | ☐ | ☒ | ☐ |

The project will comply with all applicable federal, state and local regulations pertaining to solid waste.

**Mitigation Measures**

1. None required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

| | | | | |
|---|---|---|---|---|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ( 1,2,3,4,5,6,7,8,9,10,11 ) | ☐ | ☐ | ☒ | ☐ |

The area in which the site is located is highly urbanized; therefore, it is unlikely that the proposed project would affect any rare or endangered wildlife. It is also unlikely that cultural resources would be affected by the proposed project.

| | | | | |
|---|---|---|---|---|
| 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 | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| projects, and the effects of probable future projects)? ( 1,2,3,4,5,6,7,8,9,10,11 ) | | | | |

As discussed above, the project will not produce impacts that are individually or cumulatively considerable.

| | | | | |
|---|---|---|---|---|
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ( 1,2,3,4,5,6,7,8,9,10,11 ) | ☐ | ☐ | ☒ | ☐ |

The proposed project, because of its scale and type, would not cause substantial adverse effects on human beings, either directly or indirectly.

**Mitigation Measures**

1. None required.

XVIII. EARLIER ANALYSES.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration (CEQA Guidelines Section 15063(c)(3)(D)). CEQA Guidelines Section 15152 permits tiering of environmental analyses for separate but related projects including plans and development projects. According to Guidelines Section 15152(b), tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to a site specific EIR or negative declaration.

In the case of this project, the environmental analysis was tiered from the Master Environmental Impact Report (MEIR) and subsequent Master Environmental Assessment (MEA) prepared for the Lakewood Comprehensive General Plan. Guidelines Section 15152(h)(1) specifically identifies a General Plan EIR as a type of EIR that can be used for tiering. The City prepared the MEIR in November, 1996 and approved the MEA on September 25, 2007.

**Earlier Analysis**

a) Earlier analyses used. Identify earlier analyses and state where they are available for review.

Documents used for this analysis include plans provided by the Permittee and the City of Lakewood General Plan Technical Background Report. Copies of all plans and studies used to prepare this Initial Study, as well as the MEIR and MEA, are on file and available for public review during normal business hours at the City of Lakewood Community Development Department, 5050 Clark Avenue, Lakewood, California 90712.

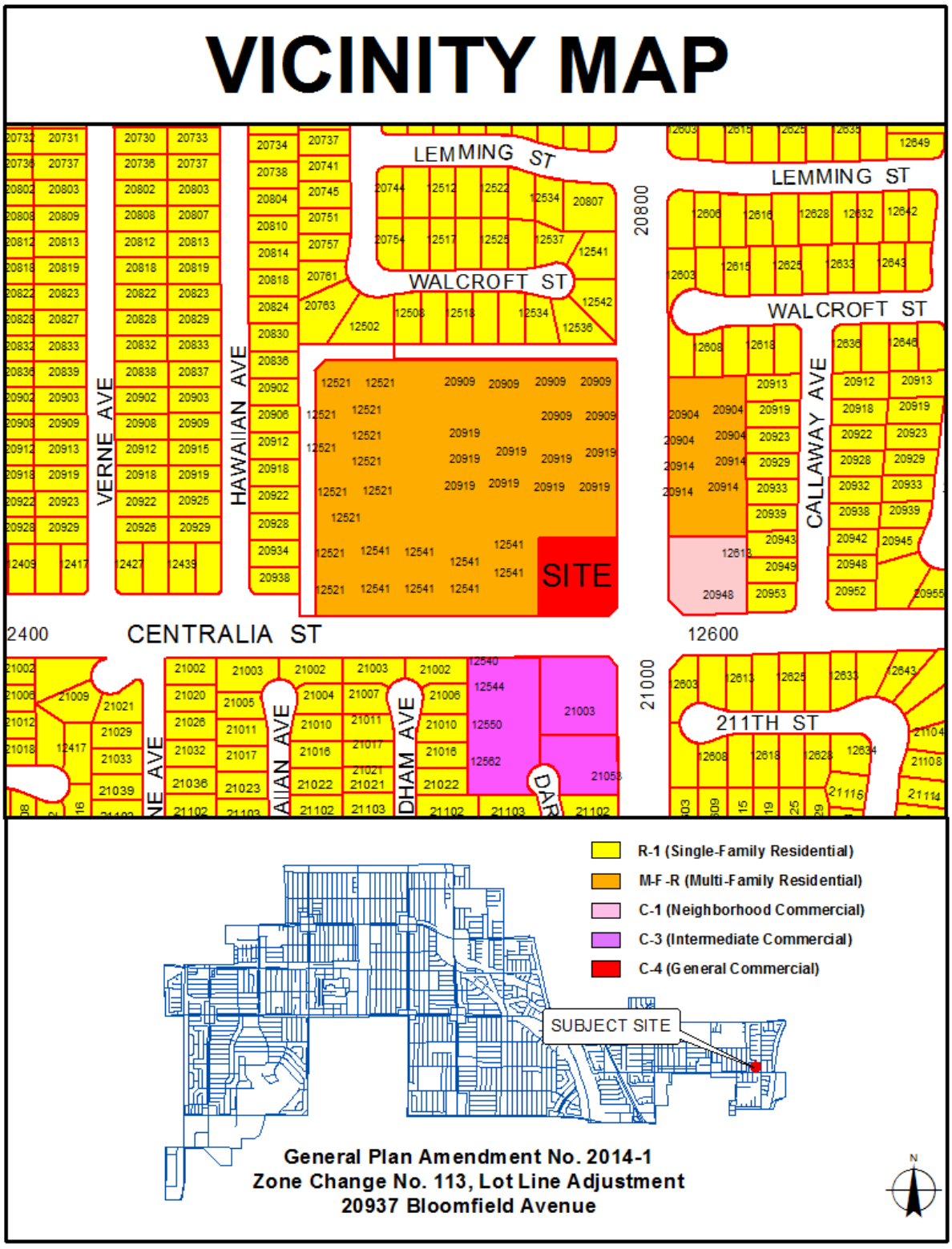
b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

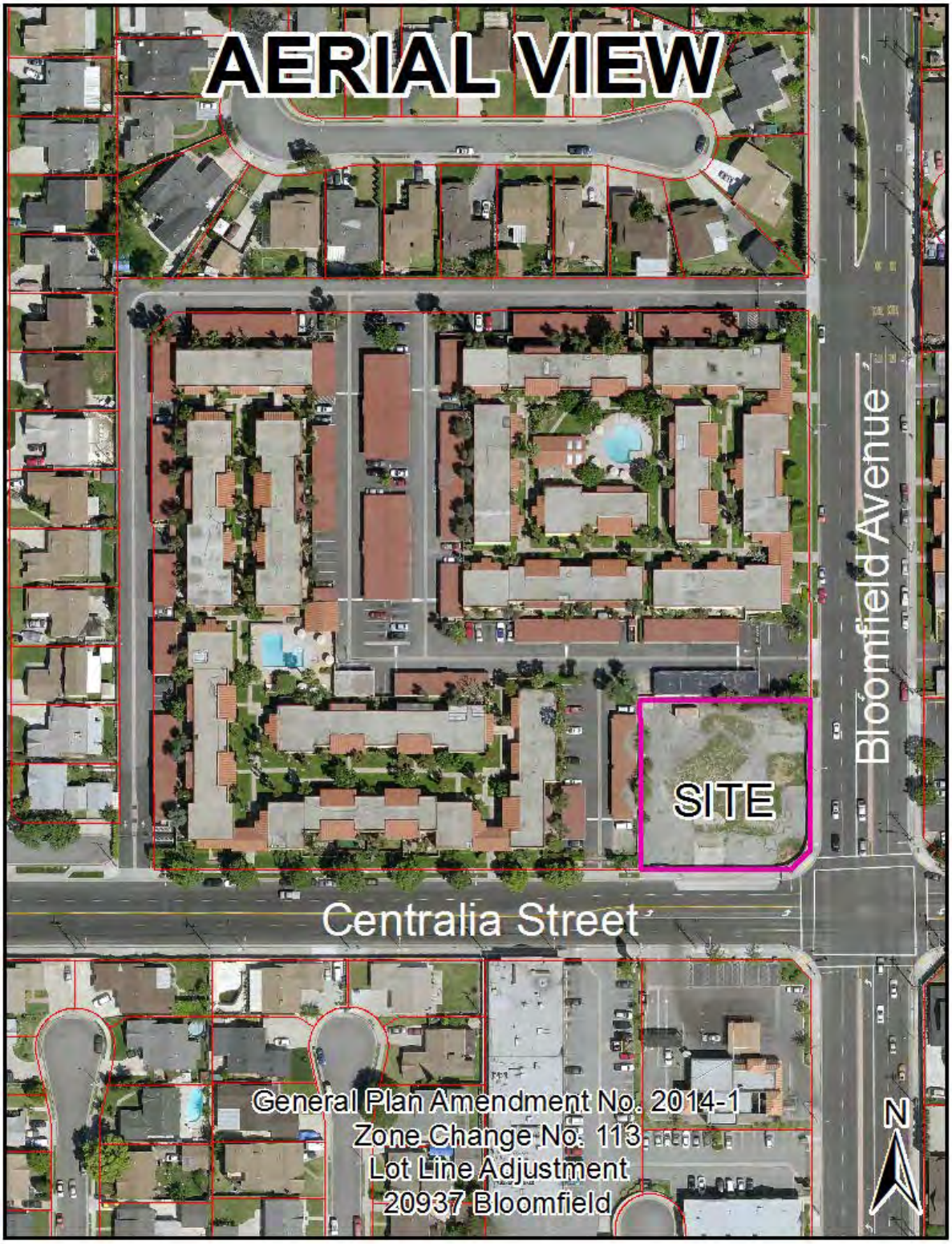
Impacts that reference the environmental documents listed in section a) above, are contained within the scope of those documents and have been adequately analyzed in those documents, pursuant to applicable legal standards.

c) Mitigation measures. For effects that are "Less than Significant with Mitigation Incorporated," describe mitigation measures incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

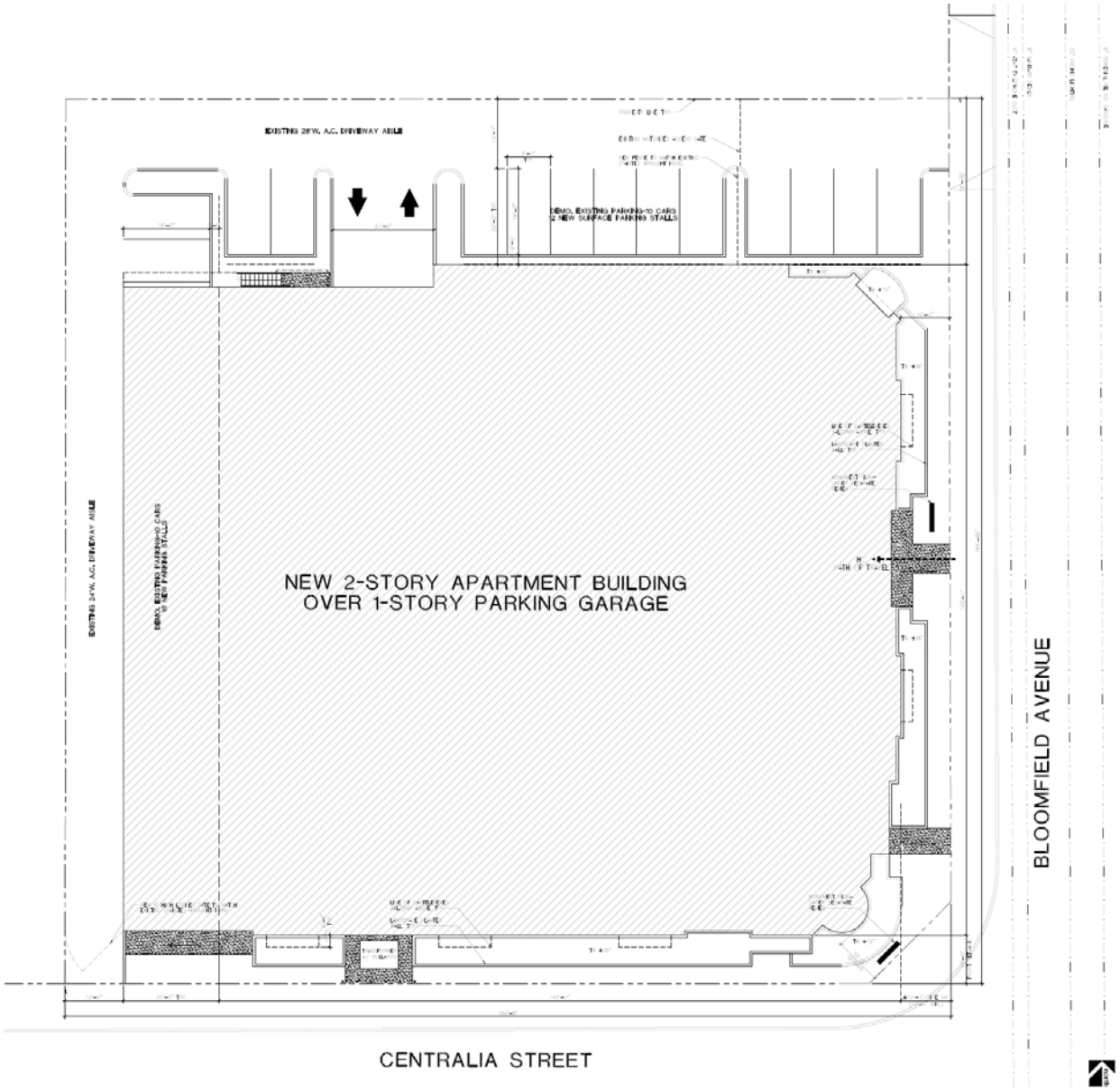
## IV. SUPPORTING INFORMATION SOURCES

1. City of Lakewood Comprehensive General Plan. City of Lakewood. This reference includes the Policy Document, the Technical Background Report, and the Final Master EIR, first adopted November, 1996, and the Master Environmental Assessment, which was approved on September 25, 2007.
2. California Government Code Section No. 51200 et seq. State of California (see Section II.a) of this Environmental Checklist).
3. A Guide to the Farmland Mapping and Monitoring Program. California Department of Conservation. 1994.
4. Seismic Hazard Zones, Long Beach Quadrangle Official Map. California Department of Conservation: Division of Mines and Geology. March 25, 1999.
5. National Flood Insurance Program, Flood Insurance Rate Map, Community-Panel Number 060130 0005 A. Federal Emergency Management Agency. Effective January 11, 2002.
6. Official Zoning Map (as amended). City of Lakewood.
7. Municipal Code of the City of Lakewood (as amended). City of Lakewood.
8. Plans and related information submitted by the applicant.
9. California Airport Land Use Planning Handbook. State of California Department of Transportation Division of Aeronautics. January, 2002.
10. California Department of Forestry and Fire Protection. Fire Hazard Severity Zone map for Los Angeles County: http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_losangeles.php June 9, 2010.


VICINITY MAP
LEMMING ST
WALCROFT ST
VERNE AVE
HAWAIIAN AVE
CALLAWAY AVE
SITE
2400
CENTRALIA ST
12600
20800
21000
211TH ST
R-1 (Single-Family Residential)
M-F-R (Multi-Family Residential)
C-1 (Neighborhood Commercial)
C-3 (Intermediate Commercial)
C-4 (General Commercial)
SUBJECT SITE
General Plan Amendment No. 2014-1
Zone Change No. 113, Lot Line Adjustment
20937 Bloomfield Avenue
N


AERIAL VIEW
Bloomfield Avenue
SITE
Centralia Street
General Plan Amendment No. 2014-1
Zone Change No. 113
Lot Line Adjustment
20937 Bloomfield
N

# Site Plan


NEW 2-STORY APARTMENT BUILDING
OVER 1-STORY PARKING GARAGE
BLOOMFIELD AVENUE
CENTRALIA STREET

# APPENDIX “A”
# Greenhouse Gas Analysis

IMPACT SCIENCES
803 Camarillo Springs Road, Suite C
Camarillo, California 93012
(805) 437-1900 FAX (805) 437 1901
www.impactsciences.com

# MEMORANDUM

**To:** Paul Mir, Villa Madrid **Job No.** 1200.001

**From:** Eric Bell, Impact Sciences, Inc.

**Subject:** Villa Madrid Residences – Greenhouse Gas Technical Memorandum

**Date:** November 27, 2013

## INTRODUCTION

The project includes development of 22 multi-family residences with parking and common space. The building would consist of three stories in total on an approximately 33,991 square foot site which with no existing structures. Parking would consist of 65 stalls in a ground-level parking structure, and an additional 12 spaces in surface parking. Common spaces would include a lobby, community rooms, gym, and a courtyard.. This technical memorandum provides an analysis of the potential greenhouse gas (GHG) impacts from construction and operation of the project.

The impacts associated with operation of the proposed project were compared to the draft thresholds of significance for GHG emissions established by the South Coast Air Quality Management District (SCAQMD). Thresholds of significance during project operation are based on mass annual emission rates for metric tons of carbon dioxide equivalents (MT CO2e).

## REGULATORY SETTING

The project site is in the City of Lakewood, in Los Angeles County. The site is located in the South Coast Air Basin (Basin). An air basin is a geographical region that shares the same air pollution concerns. The Basin consists of Orange County and the urbanized portions of Los Angeles, Riverside, and San Bernardino

Counties. The SCAQMD is the air pollution control agency for the Basin. While GHGs act on a global scale, the SCAQMD has prepared draft guidance materials for assessing the significance of GHG emissions for land use projects located within its jurisdiction. This assessment has been prepared in accordance with guidance documents and materials provided by the SCAQMD.

## THRESHOLDS OF SIGNIFICANCE

In accordance with *State CEQA Guidelines* (Appendix G), the following significance threshold criteria should be used to evaluate the potential GHG impacts of proposed projects. The project would have a significant GHG emissions impact if it would:

- generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The *State CEQA Guidelines* (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The potential air quality impacts of the proposed project are, therefore, evaluated according to thresholds developed by the SCAQMD, which are listed below.

### Emissions Thresholds

The SCAQMD has not adopted final GHG thresholds, but has published draft thresholds that are in common use for environmental analyses in the Basin. GHG emissions may be compared to either a mass emission rate threshold or a mass emissions per service person threshold (also known as an efficiency metric), where a service person is a resident or employee of the proposed project. The applicable draft thresholds are 3,000 MT CO2e per year, or 4.8 MT CO2e per service person per year.

## METHODOLOGY

Emissions modeling was conducted for the project using the California Emissions Estimator Model (CalEEMod) and information provided in the CalEEMod User's Guide.[1] CalEEMod is a program that calculates air pollutant emissions from land use sources and incorporates the CARB on-road and off-road

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1 South Coast Air Quality Management District, *California Emissions Estimator Model User's Guide*, The model and User's Guide may be downloaded from the following website: http://www.caleemod.com. 2011.

vehicle emissions models. Site-specific or project-specific data were used in the CalEEMod model where available. The project would not include substantial stationary sources of GHG emissions. Mobile source GHG emissions from vehicles traveling to and from the project would generate the bulk of the operational emissions. The mobile source emissions are based on the trip rates provided as default values in CalEEMod. Construction is expected to take place between January 1, 2014 and December 31, 2014. Additional sources were consulted for this analysis as referenced.

## IMPACT ANALYSIS

**Would the project:**

**(a). Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.**

**Less than Significant Impact.** The proposed project would result in emissions of GHGs during construction and operation. These emissions, primarily $CO_2$, methane ($CH_4$), and nitrous oxide ($N_2O$), are the result of fuel combustion by construction equipment and motor vehicles. The other primary GHGs (hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) are typically associated with specific industrial sources and are not expected to be emitted by the project.

The project consists of the development of 22 multi-family dwelling units, associated parking and common areas. Construction activity was modeled based on the construction schedule provided by the applicant, and equipment types and activity levels provided as defaults in CalEEMod. There would be no substantial demolition or excavation. The SCAQMD recommends annualizing construction-related GHG emissions over a project's lifetime, defined as a 30-year period, in order to include these emissions as part of the annual total operational emissions. Therefore, construction-related GHG emissions have been annualized over this period and included in the annual operational emissions.

The Proposed Project would be operational by 2015. Once operational, the Proposed Project would result in GHG emissions, primarily $CO_2$, $CH_4$, and $N_2O$, as a result of fuel combustion from building heating systems and motor vehicles. Both area and mobile source emissions were calculated using CalEEMod using default assumptions for residential developments.

The Proposed Project would also result in indirect GHG emissions due to electricity demand, water consumption, wastewater treatment, and solid waste generation. The emission factor for $CO_2$ due to electrical demand from Southern California Edison, the electrical utility serving the Proposed Project, was

selected in the CalEEMod model. GHG emissions from water consumption are due to the electricity needed to convey, treat, and distribute water. The default CalEEMod assumptions were used for GHG emissions from water consumption, wastewater production, and solid waste generation.

A summary of the operational emissions of the proposed project is provided below in **Table 1, Estimated Operational GHG Emissions**. The estimates represent emissions under "business as usual" conditions – that is GHG emissions that would occur as a result of development of the Proposed Project without the reductions from policies, strategies, and mitigation measures from AB 32 and other GHG reduction plans or regulations.

**Table 1**
**Estimated Operational GHG Emissions**

| Source | GHG Emissions (Metric Tons $CO_2e$/year) |
|---|---|
| Area | 0.4 |
| Energy | 90 |
| Mobile Sources | 224 |
| Waste | 5 |
| Water | 10 |
| Amortized Construction | 10 |
| **Net GHG Emissions** | **339** |
| **SCAQMD Threshold** | **3,000** |
| **Exceeds Threshold?** | **NO** |

*Source: Impact Sciences, Inc. (2013). Emission calculations are provided in **Appendix A**.*
*Note: Totals in table may not appear to add exactly due to rounding.*

As shown in **Table 1**, the estimated emissions from the Proposed Project would not exceed the applicable thresholds. Therefore, the Proposed Project's impact would be considered less than significant.

**(b). Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

**Less than Significant Impact.** The primary regulatory tool for addressing climate change and GHG emissions in California is Assembly Bill 32 (AB 32), The Global Warming Solutions Act of 2006. The goal of AB 32 is to reduce statewide GHG emissions to 1990 levels by 2020. In order to achieve the state mandate of AB 32, CARB has been tasked with implementing statewide regulatory measures to reduce GHG emissions from all sectors. The SCAQMD draft thresholds for GHG emissions are specifically designed to allow the

region to meet the requirements of AB 32. Since the proposed project does not exceed these thresholds, it consequently conforms to the requirements of AB 32. Therefore, the project is less than significant with regard to this criterion.

# APPENDIX A

## CalEEMod Output

# Villa Madrid

**South Coast Air Basin, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Apartments Mid Rise | 22.00 | Dwelling Unit | 0.78 | 22,000.00 | 63 |
| Enclosed Parking Structure | 77.00 | Space | 0.69 | 30,800.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 8 | | | **Operational Year** | 2015 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 22-unti multifamily dwelling with 77 parking spaces. Total lot acreage is 0.78 acres.

Construction Phase - Schedule assumed based on 12-month construction period.

Grading - Assume entire site (0.78 acres) is disturbed.

Area Mitigation -

Woodstoves - Assume no woodstoves or fireplaces.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10.00 | 23.00 |
| tblConstructionPhase | NumDays | 200.00 | 233.00 |
| tblConstructionPhase | NumDays | 4.00 | 29.00 |
| tblConstructionPhase | NumDays | 10.00 | 13.00 |
| tblConstructionPhase | PhaseEndDate | 3/31/2014 | 12/31/2014 |
| tblConstructionPhase | PhaseEndDate | 1/1/2015 | 12/31/2014 |
| tblConstructionPhase | PhaseEndDate | 1/19/2015 | 2/26/2014 |
| tblConstructionPhase | PhaseStartDate | 2/27/2014 | 11/29/2014 |
| tblConstructionPhase | PhaseStartDate | 2/11/2014 | 2/10/2014 |
| tblConstructionPhase | PhaseStartDate | 1/1/2015 | 2/10/2014 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 18.70 | 0.00 |
| tblFireplaces | NumberNoFireplace | 2.20 | 0.00 |
| tblFireplaces | NumberWood | 1.10 | 0.00 |
| tblGrading | AcresOfGrading | 10.88 | 0.78 |
| tblLandUse | LotAcreage | 0.58 | 0.78 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2015 |
| tblWoodstoves | NumberCatalytic | 1.10 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.10 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2014 | 1.0481 | 3.1993 | 2.4575 | 3.5500e-003 | 0.1109 | 0.2144 | 0.3254 | 0.0481 | 0.2063 | 0.2544 | 0.0000 | 305.5706 | 305.5706 | 0.0641 | 0.0000 | 306.9159 |
| **Total** | **1.0481** | **3.1993** | **2.4575** | **3.5500e-003** | **0.1109** | **0.2144** | **0.3254** | **0.0481** | **0.2063** | **0.2544** | **0.0000** | **305.5706** | **305.5706** | **0.0641** | **0.0000** | **306.9159** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2014 | 1.0481 | 3.1993 | 2.4575 | 3.5500e-003 | 0.1109 | 0.2144 | 0.3254 | 0.0481 | 0.2063 | 0.2544 | 0.0000 | 305.5703 | 305.5703 | 0.0641 | 0.0000 | 306.9156 |
| **Total** | **1.0481** | **3.1993** | **2.4575** | **3.5500e-003** | **0.1109** | **0.2144** | **0.3254** | **0.0481** | **0.2063** | **0.2544** | **0.0000** | **305.5703** | **305.5703** | **0.0641** | **0.0000** | **306.9156** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.2426 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |
| Energy | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 89.7456 | 89.7456 | 3.8500e-003 | 9.4000e-004 | 90.1188 |
| Mobile | 0.3445 | 0.3404 | 1.2921 | 2.7300e-003 | 0.1878 | 4.7100e-003 | 0.1926 | 0.0503 | 4.3300e-003 | 0.0546 | 0.0000 | 223.8342 | 223.8342 | 9.7100e-003 | 0.0000 | 224.0381 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.0543 | 0.0000 | 2.0543 | 0.1214 | 0.0000 | 4.6038 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.4548 | 8.2141 | 8.6688 | 0.0471 | 1.1800e-003 | 10.0237 |
| **Total** | **0.5881** | **0.3519** | **1.5280** | **2.8000e-003** | **0.1878** | **6.6600e-003** | **0.1945** | **0.0503** | **6.2800e-003** | **0.0565** | **2.5090** | **322.1664** | **324.6754** | **0.1824** | **2.1200e-003** | **329.1650** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.2426 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |
| Energy | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 89.7456 | 89.7456 | 3.8500e-003 | 9.4000e-004 | 90.1188 |
| Mobile | 0.3445 | 0.3404 | 1.2921 | 2.7300e-003 | 0.1878 | 4.7100e-003 | 0.1926 | 0.0503 | 4.3300e-003 | 0.0546 | 0.0000 | 223.8342 | 223.8342 | 9.7100e-003 | 0.0000 | 224.0381 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.0543 | 0.0000 | 2.0543 | 0.1214 | 0.0000 | 4.6038 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.4548 | 8.2141 | 8.6688 | 0.0471 | 1.1800e-003 | 10.0230 |
| **Total** | **0.5881** | **0.3519** | **1.5280** | **2.8000e-003** | **0.1878** | **6.6600e-003** | **0.1945** | **0.0503** | **6.2800e-003** | **0.0565** | **2.5090** | **322.1664** | **324.6754** | **0.1824** | **2.1200e-003** | **329.1643** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Grading | Grading | 1/1/2014 | 2/10/2014 | 5 | 29 | |
| 2 | Building Construction | Building Construction | 2/10/2014 | 12/31/2014 | 5 | 233 | |
| 3 | Paving | Paving | 2/10/2014 | 2/26/2014 | 5 | 13 | |
| 4 | Architectural Coating | Architectural Coating | 11/29/2014 | 12/31/2014 | 5 | 23 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0.78**

**Acres of Paving: 0**

**Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 46,200; Non-Residential Outdoor: 15,400 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Cranes | 1 | 6.00 | 226 | 0.29 |
| Building Construction | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Paving | Pavers | 1 | 6.00 | 125 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Grading | Rubber Tired Dozers | 1 | 6.00 | 255 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Graders | 1 | 6.00 | 174 | 0.41 |
| Paving | Paving Equipment | 1 | 8.00 | 130 | 0.36 |
| Building Construction | Welders | 3 | 8.00 | 46 | 0.45 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 3 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 7 | 29.00 | 7.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 5 | 13.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 6.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Grading - 2014

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0659 | 0.0000 | 0.0659 | 0.0360 | 0.0000 | 0.0360 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0301 | 0.3215 | 0.2054 | 2.0000e-004 | | 0.0176 | 0.0176 | | 0.0162 | 0.0162 | 0.0000 | 19.6746 | 19.6746 | 5.8100e-003 | 0.0000 | 19.7967 |
| **Total** | **0.0301** | **0.3215** | **0.2054** | **2.0000e-004** | **0.0659** | **0.0176** | **0.0835** | **0.0360** | **0.0162** | **0.0522** | **0.0000** | **19.6746** | **19.6746** | **5.8100e-003** | **0.0000** | **19.7967** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-003 | 8.4000e-004 | 8.7500e-003 | 2.0000e-005 | 1.2700e-003 | 1.0000e-005 | 1.2800e-003 | 3.4000e-004 | 1.0000e-005 | 3.5000e-004 | 0.0000 | 1.2762 | 1.2762 | 8.0000e-005 | 0.0000 | 1.2778 |
| **Total** | **2.8000e-003** | **8.4000e-004** | **8.7500e-003** | **2.0000e-005** | **1.2700e-003** | **1.0000e-005** | **1.2800e-003** | **3.4000e-004** | **1.0000e-005** | **3.5000e-004** | **0.0000** | **1.2762** | **1.2762** | **8.0000e-005** | **0.0000** | **1.2778** |

## 3.2 Grading - 2014

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0659 | 0.0000 | 0.0659 | 0.0360 | 0.0000 | 0.0360 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0301 | 0.3215 | 0.2054 | 2.0000e-004 | | 0.0176 | 0.0176 | | 0.0162 | 0.0162 | 0.0000 | 19.6745 | 19.6745 | 5.8100e-003 | 0.0000 | 19.7966 |
| **Total** | **0.0301** | **0.3215** | **0.2054** | **2.0000e-004** | **0.0659** | **0.0176** | **0.0835** | **0.0360** | **0.0162** | **0.0522** | **0.0000** | **19.6745** | **19.6745** | **5.8100e-003** | **0.0000** | **19.7966** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-003 | 8.4000e-004 | 8.7500e-003 | 2.0000e-005 | 1.2700e-003 | 1.0000e-005 | 1.2800e-003 | 3.4000e-004 | 1.0000e-005 | 3.5000e-004 | 0.0000 | 1.2762 | 1.2762 | 8.0000e-005 | 0.0000 | 1.2778 |
| **Total** | **2.8000e-003** | **8.4000e-004** | **8.7500e-003** | **2.0000e-005** | **1.2700e-003** | **1.0000e-005** | **1.2800e-003** | **3.4000e-004** | **1.0000e-005** | **3.5000e-004** | **0.0000** | **1.2762** | **1.2762** | **8.0000e-005** | **0.0000** | **1.2778** |

## 3.3 Building Construction - 2014

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.4552 | 2.6251 | 1.7836 | 2.5600e-003 | | 0.1859 | 0.1859 | | 0.1798 | 0.1798 | 0.0000 | 218.1464 | 218.1464 | 0.0529 | 0.0000 | 219.2572 |
| **Total** | **0.4552** | **2.6251** | **1.7836** | **2.5600e-003** | | **0.1859** | **0.1859** | | **0.1798** | **0.1798** | **0.0000** | **218.1464** | **218.1464** | **0.0529** | **0.0000** | **219.2572** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0172 | 0.0961 | 0.1118 | 1.8000e-004 | 5.0200e-003 | 1.8100e-003 | 6.8300e-003 | 1.4300e-003 | 1.6700e-003 | 3.1000e-003 | 0.0000 | 16.4468 | 16.4468 | 1.5000e-004 | 0.0000 | 16.4499 |
| Worker | 0.0816 | 0.0246 | 0.2547 | 4.6000e-004 | 0.0371 | 3.6000e-004 | 0.0374 | 9.8400e-003 | 3.3000e-004 | 0.0102 | 0.0000 | 37.1681 | 37.1681 | 2.2200e-003 | 0.0000 | 37.2147 |
| **Total** | **0.0989** | **0.1207** | **0.3665** | **6.4000e-004** | **0.0421** | **2.1700e-003** | **0.0443** | **0.0113** | **2.0000e-003** | **0.0133** | **0.0000** | **53.6149** | **53.6149** | **2.3700e-003** | **0.0000** | **53.6646** |

## 3.3 Building Construction - 2014

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.4552 | 2.6251 | 1.7836 | 2.5600e-003 | | 0.1859 | 0.1859 | | 0.1798 | 0.1798 | 0.0000 | 218.1462 | 218.1462 | 0.0529 | 0.0000 | 219.2569 |
| **Total** | **0.4552** | **2.6251** | **1.7836** | **2.5600e-003** | | **0.1859** | **0.1859** | | **0.1798** | **0.1798** | **0.0000** | **218.1462** | **218.1462** | **0.0529** | **0.0000** | **219.2569** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0172 | 0.0961 | 0.1118 | 1.8000e-004 | 5.0200e-003 | 1.8100e-003 | 6.8300e-003 | 1.4300e-003 | 1.6700e-003 | 3.1000e-003 | 0.0000 | 16.4468 | 16.4468 | 1.5000e-004 | 0.0000 | 16.4499 |
| Worker | 0.0816 | 0.0246 | 0.2547 | 4.6000e-004 | 0.0371 | 3.6000e-004 | 0.0374 | 9.8400e-003 | 3.3000e-004 | 0.0102 | 0.0000 | 37.1681 | 37.1681 | 2.2200e-003 | 0.0000 | 37.2147 |
| **Total** | **0.0989** | **0.1207** | **0.3665** | **6.4000e-004** | **0.0421** | **2.1700e-003** | **0.0443** | **0.0113** | **2.0000e-003** | **0.0133** | **0.0000** | **53.6149** | **53.6149** | **2.3700e-003** | **0.0000** | **53.6646** |

## 3.4 Paving - 2014

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.3000e-003 | 0.0981 | 0.0595 | 9.0000e-005 | | 5.9600e-003 | 5.9600e-003 | | 5.4900e-003 | 5.4900e-003 | 0.0000 | 8.2336 | 8.2336 | 2.3900e-003 | 0.0000 | 8.2838 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **9.3000e-003** | **0.0981** | **0.0595** | **9.0000e-005** | | **5.9600e-003** | **5.9600e-003** | | **5.4900e-003** | **5.4900e-003** | **0.0000** | **8.2336** | **8.2336** | **2.3900e-003** | **0.0000** | **8.2838** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0400e-003 | 6.1000e-004 | 6.3700e-003 | 1.0000e-005 | 9.3000e-004 | 1.0000e-005 | 9.4000e-004 | 2.5000e-004 | 1.0000e-005 | 2.5000e-004 | 0.0000 | 0.9296 | 0.9296 | 6.0000e-005 | 0.0000 | 0.9308 |
| **Total** | **2.0400e-003** | **6.1000e-004** | **6.3700e-003** | **1.0000e-005** | **9.3000e-004** | **1.0000e-005** | **9.4000e-004** | **2.5000e-004** | **1.0000e-005** | **2.5000e-004** | **0.0000** | **0.9296** | **0.9296** | **6.0000e-005** | **0.0000** | **0.9308** |

## 3.4 Paving - 2014

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.3000e-003 | 0.0981 | 0.0595 | 9.0000e-005 | | 5.9600e-003 | 5.9600e-003 | | 5.4900e-003 | 5.4900e-003 | 0.0000 | 8.2336 | 8.2336 | 2.3900e-003 | 0.0000 | 8.2838 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **9.3000e-003** | **0.0981** | **0.0595** | **9.0000e-005** | | **5.9600e-003** | **5.9600e-003** | | **5.4900e-003** | **5.4900e-003** | **0.0000** | **8.2336** | **8.2336** | **2.3900e-003** | **0.0000** | **8.2838** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0400e-003 | 6.1000e-004 | 6.3700e-003 | 1.0000e-005 | 9.3000e-004 | 1.0000e-005 | 9.4000e-004 | 2.5000e-004 | 1.0000e-005 | 2.5000e-004 | 0.0000 | 0.9296 | 0.9296 | 6.0000e-005 | 0.0000 | 0.9308 |
| **Total** | **2.0400e-003** | **6.1000e-004** | **6.3700e-003** | **1.0000e-005** | **9.3000e-004** | **1.0000e-005** | **9.4000e-004** | **2.5000e-004** | **1.0000e-005** | **2.5000e-004** | **0.0000** | **0.9296** | **0.9296** | **6.0000e-005** | **0.0000** | **0.9308** |

## 3.5 Architectural Coating - 2014

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.4429 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.1300e-003 | 0.0319 | 0.0221 | 3.0000e-005 | | 2.8200e-003 | 2.8200e-003 | | 2.8200e-003 | 2.8200e-003 | 0.0000 | 2.9362 | 2.9362 | 4.2000e-004 | 0.0000 | 2.9450 |
| **Total** | **0.4481** | **0.0319** | **0.0221** | **3.0000e-005** | | **2.8200e-003** | **2.8200e-003** | | **2.8200e-003** | **2.8200e-003** | **0.0000** | **2.9362** | **2.9362** | **4.2000e-004** | **0.0000** | **2.9450** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6700e-003 | 5.0000e-004 | 5.2000e-003 | 1.0000e-005 | 7.6000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.7591 | 0.7591 | 5.0000e-005 | 0.0000 | 0.7601 |
| **Total** | **1.6700e-003** | **5.0000e-004** | **5.2000e-003** | **1.0000e-005** | **7.6000e-004** | **1.0000e-005** | **7.6000e-004** | **2.0000e-004** | **1.0000e-005** | **2.1000e-004** | **0.0000** | **0.7591** | **0.7591** | **5.0000e-005** | **0.0000** | **0.7601** |

## 3.5 Architectural Coating - 2014

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.4429 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.1300e-003 | 0.0319 | 0.0221 | 3.0000e-005 | | 2.8200e-003 | 2.8200e-003 | | 2.8200e-003 | 2.8200e-003 | 0.0000 | 2.9362 | 2.9362 | 4.2000e-004 | 0.0000 | 2.9450 |
| **Total** | **0.4481** | **0.0319** | **0.0221** | **3.0000e-005** | | **2.8200e-003** | **2.8200e-003** | | **2.8200e-003** | **2.8200e-003** | **0.0000** | **2.9362** | **2.9362** | **4.2000e-004** | **0.0000** | **2.9450** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6700e-003 | 5.0000e-004 | 5.2000e-003 | 1.0000e-005 | 7.6000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.7591 | 0.7591 | 5.0000e-005 | 0.0000 | 0.7601 |
| **Total** | **1.6700e-003** | **5.0000e-004** | **5.2000e-003** | **1.0000e-005** | **7.6000e-004** | **1.0000e-005** | **7.6000e-004** | **2.0000e-004** | **1.0000e-005** | **2.1000e-004** | **0.0000** | **0.7591** | **0.7591** | **5.0000e-005** | **0.0000** | **0.7601** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.3445 | 0.3404 | 1.2921 | 2.7300e-003 | 0.1878 | 4.7100e-003 | 0.1926 | 0.0503 | 4.3300e-003 | 0.0546 | 0.0000 | 223.8342 | 223.8342 | 9.7100e-003 | 0.0000 | 224.0381 |
| Unmitigated | 0.3445 | 0.3404 | 1.2921 | 2.7300e-003 | 0.1878 | 4.7100e-003 | 0.1926 | 0.0503 | 4.3300e-003 | 0.0546 | 0.0000 | 223.8342 | 223.8342 | 9.7100e-003 | 0.0000 | 224.0381 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 144.98 | 157.52 | 133.54 | 495,956 | 495,956 |
| Enclosed Parking Structure | 0.00 | 0.00 | 0.00 | | |
| Total | 144.98 | 157.52 | 133.54 | 495,956 | 495,956 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Enclosed Parking Structure | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.515437 | 0.060435 | 0.179988 | 0.139880 | 0.041945 | 0.006639 | 0.015487 | 0.028746 | 0.001918 | 0.002517 | 0.004333 | 0.000596 | 0.002079 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 79.6329 | 79.6329 | 3.6600e-003 | 7.6000e-004 | 79.9446 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 79.6329 | 79.6329 | 3.6600e-003 | 7.6000e-004 | 79.9446 |
| NaturalGas Mitigated | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 10.1126 | 10.1126 | 1.9000e-004 | 1.9000e-004 | 10.1742 |
| NaturalGas Unmitigated | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 10.1126 | 10.1126 | 1.9000e-004 | 1.9000e-004 | 10.1742 |

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking Structure | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid Rise | 189504 | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 10.1126 | 10.1126 | 1.9000e-004 | 1.9000e-004 | 10.1742 |
| **Total** | | **1.0200e-003** | **8.7300e-003** | **3.7200e-003** | **6.0000e-005** | | **7.1000e-004** | **7.1000e-004** | | **7.1000e-004** | **7.1000e-004** | **0.0000** | **10.1126** | **10.1126** | **1.9000e-004** | **1.9000e-004** | **10.1742** |

### Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking Structure | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid Rise | 189504 | 1.0200e-003 | 8.7300e-003 | 3.7200e-003 | 6.0000e-005 | | 7.1000e-004 | 7.1000e-004 | | 7.1000e-004 | 7.1000e-004 | 0.0000 | 10.1126 | 10.1126 | 1.9000e-004 | 1.9000e-004 | 10.1742 |
| **Total** | | **1.0200e-003** | **8.7300e-003** | **3.7200e-003** | **6.0000e-005** | | **7.1000e-004** | **7.1000e-004** | | **7.1000e-004** | **7.1000e-004** | **0.0000** | **10.1126** | **10.1126** | **1.9000e-004** | **1.9000e-004** | **10.1742** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Mid Rise | 76534.5 | 21.9016 | 1.0100e-003 | 2.1000e-004 | 21.9874 |
| Enclosed Parking Structure | 201740 | 57.7313 | 2.6500e-003 | 5.5000e-004 | 57.9572 |
| **Total** | | **79.6329** | **3.6600e-003** | **7.6000e-004** | **79.9446** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Mid Rise | 76534.5 | 21.9016 | 1.0100e-003 | 2.1000e-004 | 21.9874 |
| Enclosed Parking Structure | 201740 | 57.7313 | 2.6500e-003 | 5.5000e-004 | 57.9572 |
| **Total** | | **79.6329** | **3.6600e-003** | **7.6000e-004** | **79.9446** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

No Hearths Installed

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.2426 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |
| Unmitigated | 0.2426 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0443 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1908 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 7.4900e-003 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |
| **Total** | **0.2426** | **2.7300e-003** | **0.2322** | **1.0000e-005** | | **1.2400e-003** | **1.2400e-003** | | **1.2400e-003** | **1.2400e-003** | **0.0000** | **0.3725** | **0.3725** | **3.9000e-004** | **0.0000** | **0.3807** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0443 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1908 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 7.4900e-003 | 2.7300e-003 | 0.2322 | 1.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 0.3725 | 0.3725 | 3.9000e-004 | 0.0000 | 0.3807 |
| **Total** | **0.2426** | **2.7300e-003** | **0.2322** | **1.0000e-005** | | **1.2400e-003** | **1.2400e-003** | | **1.2400e-003** | **1.2400e-003** | **0.0000** | **0.3725** | **0.3725** | **3.9000e-004** | **0.0000** | **0.3807** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 8.6688 | 0.0471 | 1.1800e-003 | 10.0230 |
| Unmitigated | 8.6688 | 0.0471 | 1.1800e-003 | 10.0237 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Mid Rise | 1.43339 / 0.903658 | 8.6688 | 0.0471 | 1.1800e-003 | 10.0237 |
| Enclosed Parking Structure | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **8.6688** | **0.0471** | **1.1800e-003** | **10.0237** |

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Mid Rise | 1.43339 / 0.903658 | 8.6688 | 0.0471 | 1.1800e-003 | 10.0230 |
| Enclosed Parking Structure | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **8.6688** | **0.0471** | **1.1800e-003** | **10.0230** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 2.0543 | 0.1214 | 0.0000 | 4.6038 |
| Unmitigated | 2.0543 | 0.1214 | 0.0000 | 4.6038 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Mid Rise | 10.12 | 2.0543 | 0.1214 | 0.0000 | 4.6038 |
| Enclosed Parking Structure | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.0543** | **0.1214** | **0.0000** | **4.6038** |

### 8.2 Waste by Land Use

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Mid Rise | 10.12 | 2.0543 | 0.1214 | 0.0000 | 4.6038 |
| Enclosed Parking Structure | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.0543** | **0.1214** | **0.0000** | **4.6038** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Vegetation

# APPENDIX “B”
# Traffic Impact Analysis

# SASAKI TRANSPORTATION SERVICES, INC.

October 4, 2013

Mr. Paul Mir
Villa Madrid
8885 Venice Boulevard, Suite 200
Los Angeles, CA 90715

**SUBJECT: TIA for the 22-Unit Villa Madrid Apartment Project – City of Lakewood, CA**

Dear Mr. Mir:

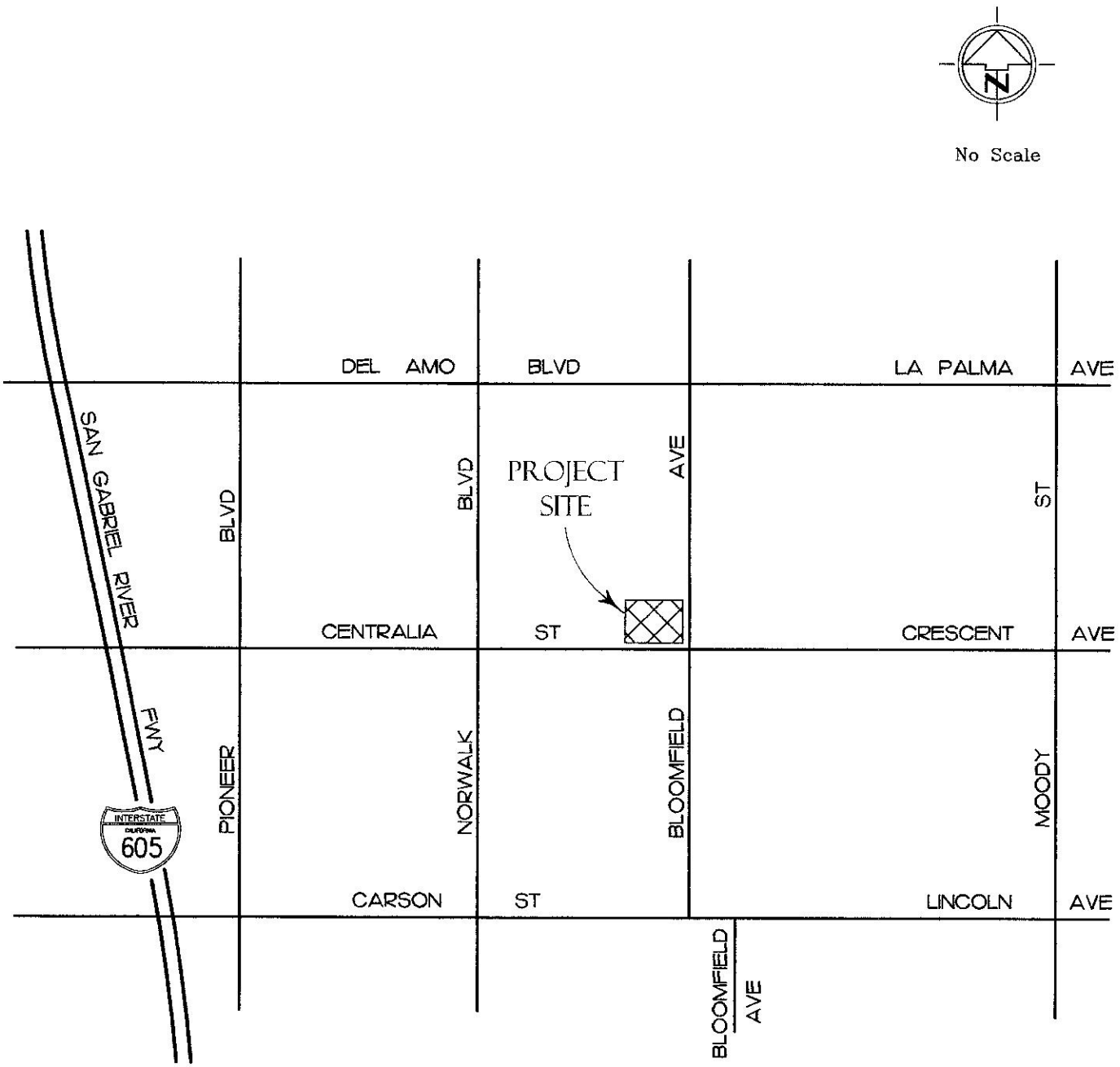
This Traffic Study has been prepared in accordance with County of Los Angeles Congestion Management Program ("CMP"), Traffic Impact Analysis ("TIA") procedures as directed by City of Lakewood staff. This TIA documents analyses of potential traffic impacts associated with the proposed construction of a 22-unit apartment building ("Project") at the northwest corner of the Bloomfield Avenue and Centralia Street ("Bloomfield/ Centralia") intersection.

This TIA is based on current traffic data collected, information provided by the owners/their representatives, comments from City staff, field review of the study area, and use of pertinent reference materials. The analyses contained in this report provide technical traffic information related to the proposed Villa Madrid project.

## PROJECT DESCRIPTION

The Villa Madrid Project would be developed on land that is presently vacant, at the northwest corner of the Bloomfield/Centralia intersection. There is an existing Villa Madrid apartment complex, that borders the north and west sides of the Project site. Access for the existing complex is gated with driveways at both Bloomfield Avenue and Centralia Street.

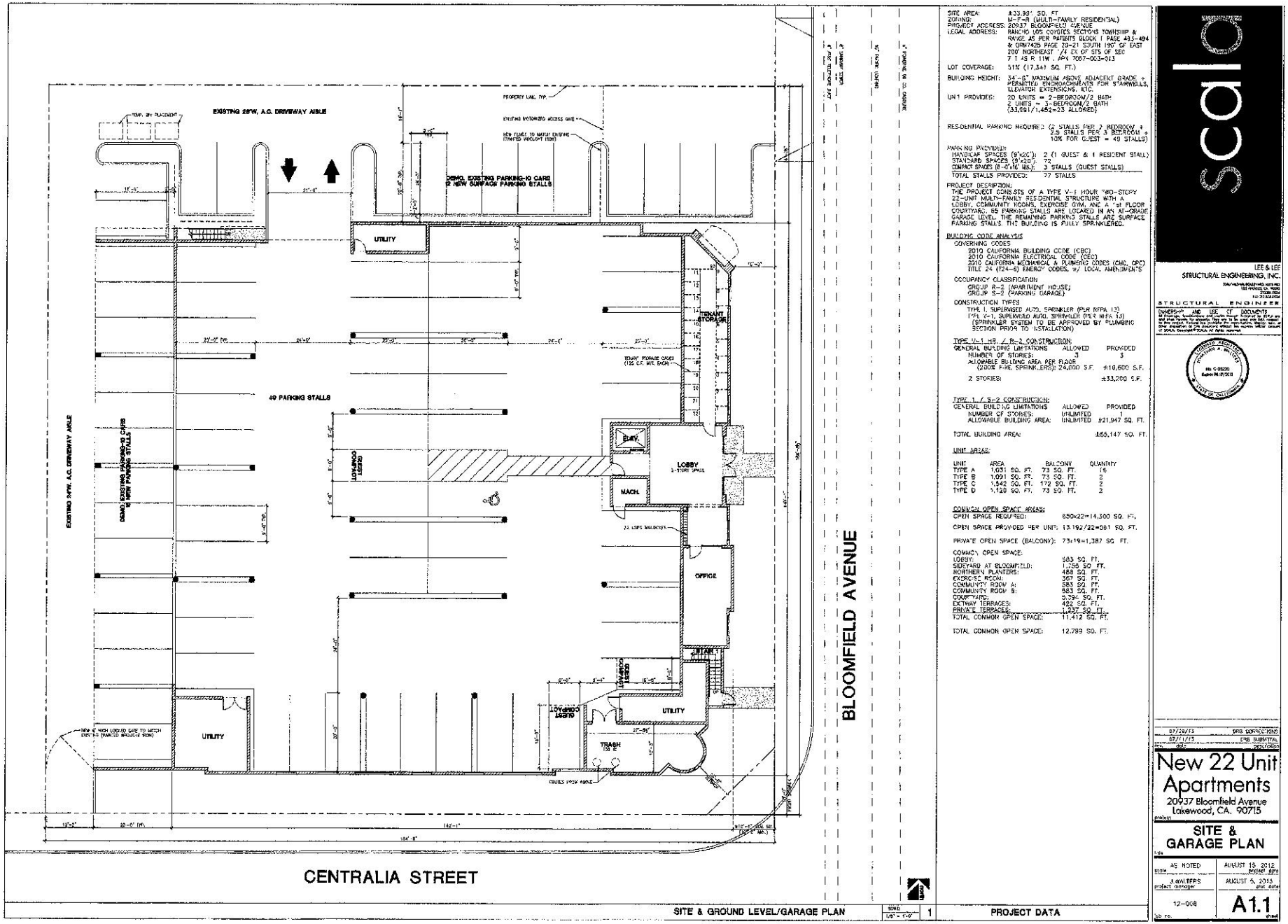
The proposed Project site has four existing driveways, two at Bloomfield Avenue and two at Centralia Street. Based on the current site plan, all four existing driveways would be closed, and access for the Project is planned to be internal to the existing Villa Madrid complex at the north (westerly) side of the Project site. The Project access would connect to/from an internal, east-west drive aisle currently serving the existing apartments and gated at Bloomfield Avenue. **Figure 1** illustrates the Project location in relationship to the surrounding street system and **Figure 2** presents the proposed Project site plan.




PROJECT LOCATION

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 1




SITE PLAN

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 2

The site plan indicates 77 parking spaces will be provided in conjunction with the Project, and also notes a total of 49 spaces would be required to satisfy City residential parking Code requirements. This indicates the Project would exceed the City of Lakewood parking Code requirements by 28 parking spaces (77 spaces-49 spaces).

## EXISTING CONDITIONS

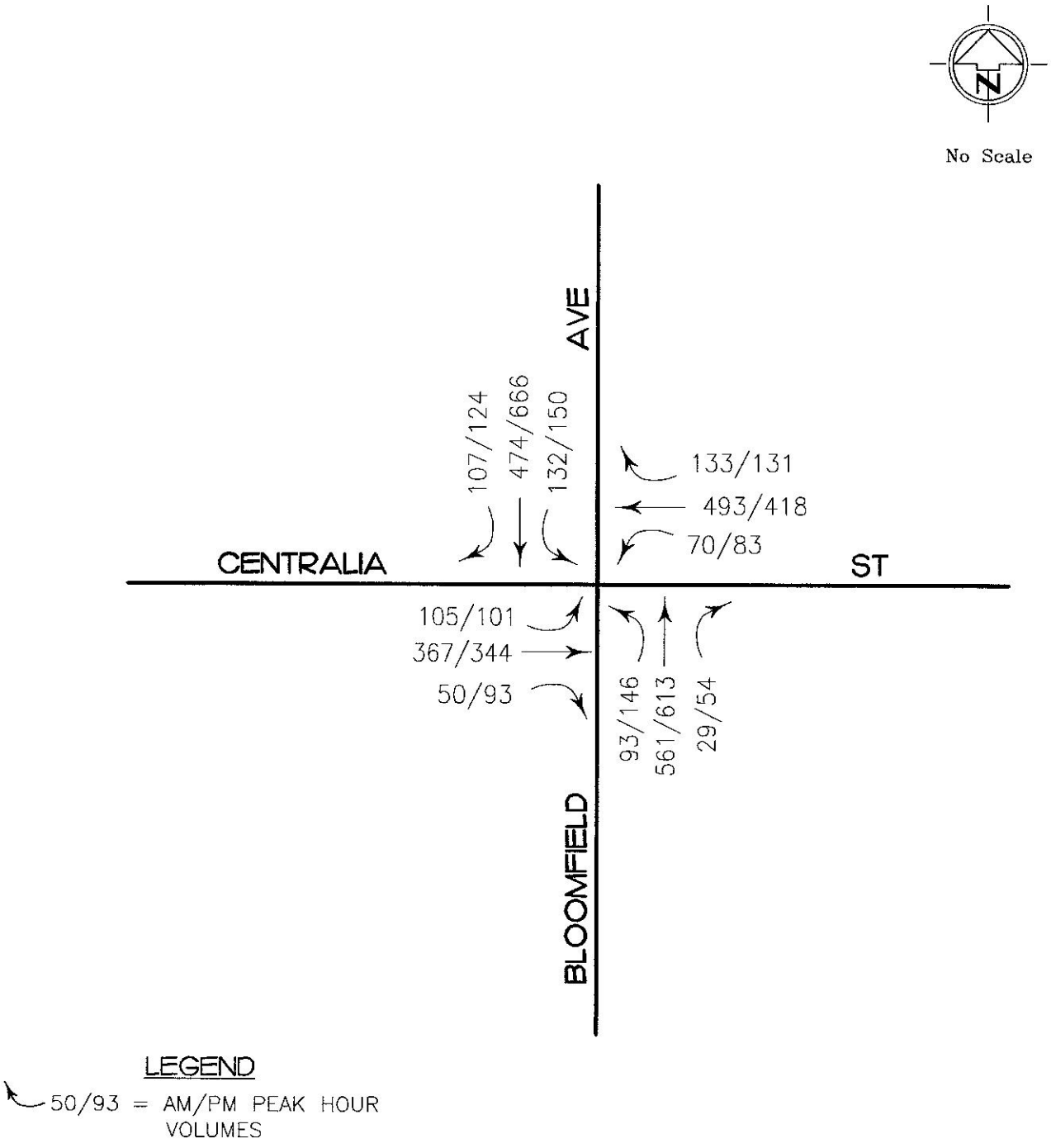
***Bloomfield Avenue*** has a north-south alignment and provides regional access becoming Santa Fe Springs Road to the north and terminating south of Katella Avenue to the south. There is I-5 and SR-91 freeway ramp access at/near Bloomfield Avenue. In the study area, Bloomfield is a four-lane, divided roadway with on-street parking allowed at some roadway sections. Along the project frontage a raised median exists, which restricts the southerly driveway for the existing Villa Madrid apartments to right turns only. The next driveway to the north, which is also a Villa Madrid driveway, provides full access. The Bloomfield/Centralia intersection is signalized with a two-phase traffic signal.

***Centralia Street*** is an east-west roadway, which to the east of Bloomfield Avenue becomes Crescent Avenue and continues past the I-5 Freeway, terminating at Loara Street. To the west Centralia crosses the I-605 Freeway and curves to become Studebaker Road. Within the study area, four divided travel lanes are provided with on-street parking allowed in designated sections. Along the existing Villa Madrid complex frontage the most easterly driveway has a gate that remains closed except under special arrangement. The westerly driveway accommodates full access (left and right turn are allowed). As indicated above, the intersection with Bloomfield Avenue is signalized.

Based upon direction from City of Lakewood staff, the Bloomfield/Centralia intersection was analyzed to document potential Project traffic impacts. Information contained in the Los Angeles County CMP TIA Guidelines, consideration of the type of Project proposed, and review of the study area provided guidance for the evaluations. Since the study intersection is signalized the Intersection Capacity Utilization ("ICU") methodology was applied.

AM and PM peak hour turning movement counts were conducted at the study intersection, September 10, 2013. A traffic count firm, *The Traffic Solution* conducted these counts during the peak periods so the existing turning movement volumes for the peak hours could be identified and used in the traffic analyses. Current roadway/access conditions, intersection geometries, and other field data were collected for use in the evaluation of existing traffic conditions. The detailed data sheets providing summaries of the intersection counts are contained in **Appendix A**. The existing traffic volumes are also shown in **Figure 3**.

The Intersection Capacity Utilization ("ICU") methodology of intersection analysis was used in the evaluation of existing operations of the study intersection, which is the accepted CMP TIA procedure. The ICU methodology requires comparison of peak hour traffic volumes to intersection lane capacities, for the critical intersection movements. This volume to capacity comparison combined with consideration of *"lost time"* due to signal phasing and other factors, results in an ICU value. The ICU value is then related to Levels of Service (LOS), which are qualitative descriptions of intersection operations and range from "A" (the best) to "F" (the worst). It is often recognized




EXISTING PEAK HOUR VOLUMES

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 3

that LOS D or better represents acceptable intersection operations, however, for in the CMP TIA guidelines LOS E is also deemed acceptable, and LOS F is considered over capacity. A more detailed explanation of LOS can be referenced in the 2000 Highway Capacity Manual, and this explanation is also provided in **Appendix B**.

As noted on the ICU worksheets (for the Bloomfield/Centralia intersection) the combination through-right turn, curb lane approaches on Bloomfield are input as one through lane, even though the curb lane is wide enough (20') to function as two lanes (one through and one right turn). The one, combined lane assumption serves to provide a "worst case" type evaluation.

The results of the ICU analyses for existing conditions are summarized in **Table 1**. The study intersection currently operates at LOS "B" during both the AM and PM peak hours, even with the worst case lane assumptions. The ICU analyses worksheets are also provided in **Appendix B**, and show the lane geometry assumptions, existing traffic volumes, and analyses details.

## PROJECT CONDITIONS

### Trip Generation

Institute of Transportation Engineers ("ITE") rates were referenced regarding this proposed apartment land use Project. There are ITE rates for both "Apartment" and "Low-Rise Apartment," which could both be applicable to the Project; the more conservative "Apartment" trip rates were applied. Both sets of trip rates were referenced from the ***Trip Generation Manual***[1] and are shown in **Table 2**.

There are uses where some portion of project traffic for a development will come from the existing traffic adjacent to the site (fast food, coffee shop, etc.), and pass-by trip credits (reductions) would be applicable. For a residential apartment project, no pass-by trips are documented nor anticipated to occur.

The ITE trip generation rates were applied to the proposed Project, and **Table 2** also shows the resulting trip generation for the Project. The proposed Project is estimated to generate a total of 150 daily trip ends, of which 11 (2 In, 9 Out) occur during the AM peak hour and 14 (9 In, 5 Out) occur during the PM peak hour.

### Trip Distribution and Assignment

Trip distribution patterns for the proposed Project were developed based upon the type of land uses proposed, potential trip attractors in the area, CMP information, the surrounding street system, and other pertinent considerations. The geographical trip distribution percentages are shown in **Figure 4**.

The Project trips in **Table 3** were then assigned to the surrounding street system based on the distribution percentages. The trip assignments of the "Project Only" AM and PM peak hour traffic volumes at the driveways and study location are also illustrated in **Figure 4** and can be referenced from the ICU worksheets contained in the appendix.

---

1 ***Trip Generation Manual, Ninth Edition***; *Institute of Transportation Engineers (ITE)*; 2012.

**TABLE 1**
**INTERSECTION ANALYSES SUMMARY**
**EXISTING AND EXISITNG PLUS PROJECT CONDITIONS**
**Proposed Villa Madrid Apartments - Lakewood**

| INTERSECTION | ICU / LOS | | | | SIGNIFICANT IMPACT YES / NO | | MITIGATIONS | |
|---|---|---|---|---|---|---|---|---|
| | EXISTING | | EXISTING + PROJECT | | | | | |
| | AM | PM | AM | PM | AM | PM | AM | PM |
| Bloomfield / Centralia | 0.63 / B | 0.67 / B | 0.63 / B | 0.67 / B | NO | NO | - | - |

# TABLE 2
## Trip Generation
Proposed Villa Madrid
Apartment Project

| Land Use | Units | Daily | AM Peak Hour In | AM Peak Hour Out | PM Peak Hour In | PM Peak Hour Out |
|---|---|---|---|---|---|---|
| Trip Generation Rates: | | | | | | |
| - Apartment | per DU | 6.65 | 0.1 | 0.41 | 0.4 | 0.22 |
| - Low-Rise Apartment | per DU | 6.59 | 0.1 | 0.36 | 0.38 | 0.2 |

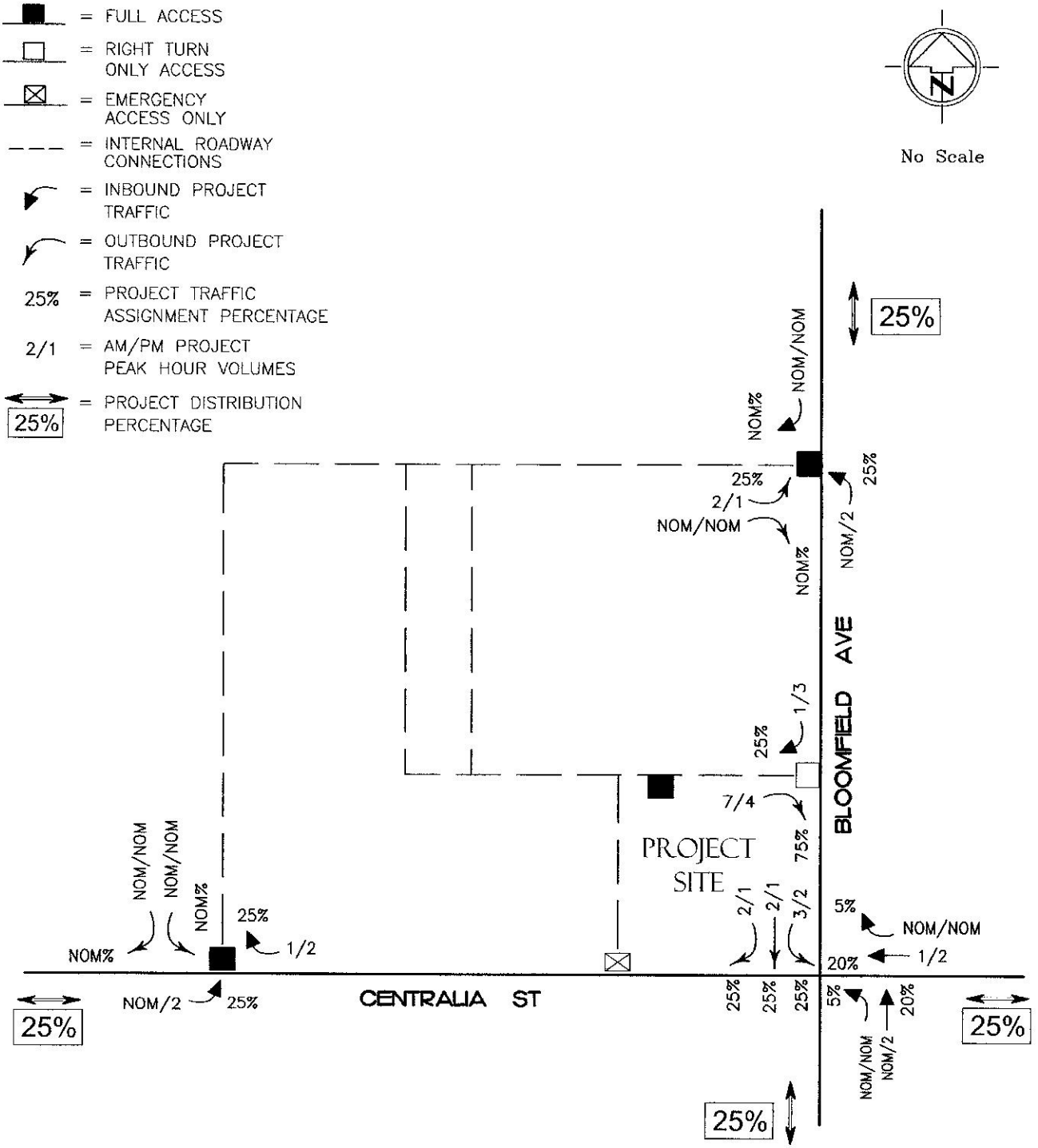
Source: Trip Generation Manual, 9th Edition; Institute of Transportation Engineers (ITE); 2012
DU = dwelling unit

| | | | | | | |
|---|---|---|---|---|---|---|
| Trip Ends Generated: | | | | | | |
| Proposed Villa Madrid Project: | | | | | | |
| - Proposed Apartments (based on "Apartment" rates) | 22 Dus | 150 | 2 | 9 | 9 | 5 |
| **Totals** | | **150** | **2** | **9** | **9** | **5** |

Note: The daily & peak Trip Ends generated are rounded to the nearest 10 & 1, respectively

**TABLE 3**
**INTERSECTION ANALYSES SUMMARY**
**FUTURE WITHOUT and WITH PROJECT CONDITIONS**
**Proposed Villa Madrid Apartments - Lakewood**

| INTERSECTION | ICU / LOS | | | | SIGNIFICANT IMPACT YES / NO | | MITIGATIONS | |
|---|---|---|---|---|---|---|---|---|
| | FUTURE W/O PROJECT | | FUTURE W/ PROJECT | | | | | |
| | AM | PM | AM | PM | AM | PM | AM | PM |
| Bloomfield / Centralia | 0.65 / B | 0.69 / B | 0.65 / B | 0.69 / B | NO | NO | - | - |




# PROJECT ONLY
# DISTRIBUTION / ASSIGNMENT PERCENTAGES
# AND PEAK HOUR VOLUMES

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 4

It should be noted as indicated in **Figure 4**, Project traffic volumes would take access to/from the adjacent arterial roadways via driveways serving the existing Villa Madrid apartment complex. In addition, as a part of the proposed Project, four existing driveways in close proximity to the Bloomfield/Centralia intersection would be closed. The closure of the four existing driveways (two at Bloomfield and two at Centralia) at the Project site provides traffic operational benefits for the adjacent street system.

## EXISTING + PROJECT CONDITIONS

### Proposed Project Impacts

The Project generated trips were added to the existing traffic volumes and conditions, so potential Project impacts could be quantified. From a California Environmental Quality Act ("CEQA") perspective the "Existing + Project" conditions have been determined as critical in determination of Project specific impacts.

The CMP TIA practices indicate a project will have less than significant impacts at an intersection if LOS E or better is maintained or the Project causes a 0.02 or less ICU impact at an over capacity (LOS F) location. If LOS E or better is maintained for the study intersection, with addition of the Project impacts, then no mitigation measures are required.

The "Existing + Project" intersection volumes are illustrated in **Figure 5**. These volumes were evaluated based on the existing lane geometries using "worst case" assumptions so specific Project related traffic impacts could be identified. The ICU worksheets which document the calculations and findings are included in **Appendix B**.

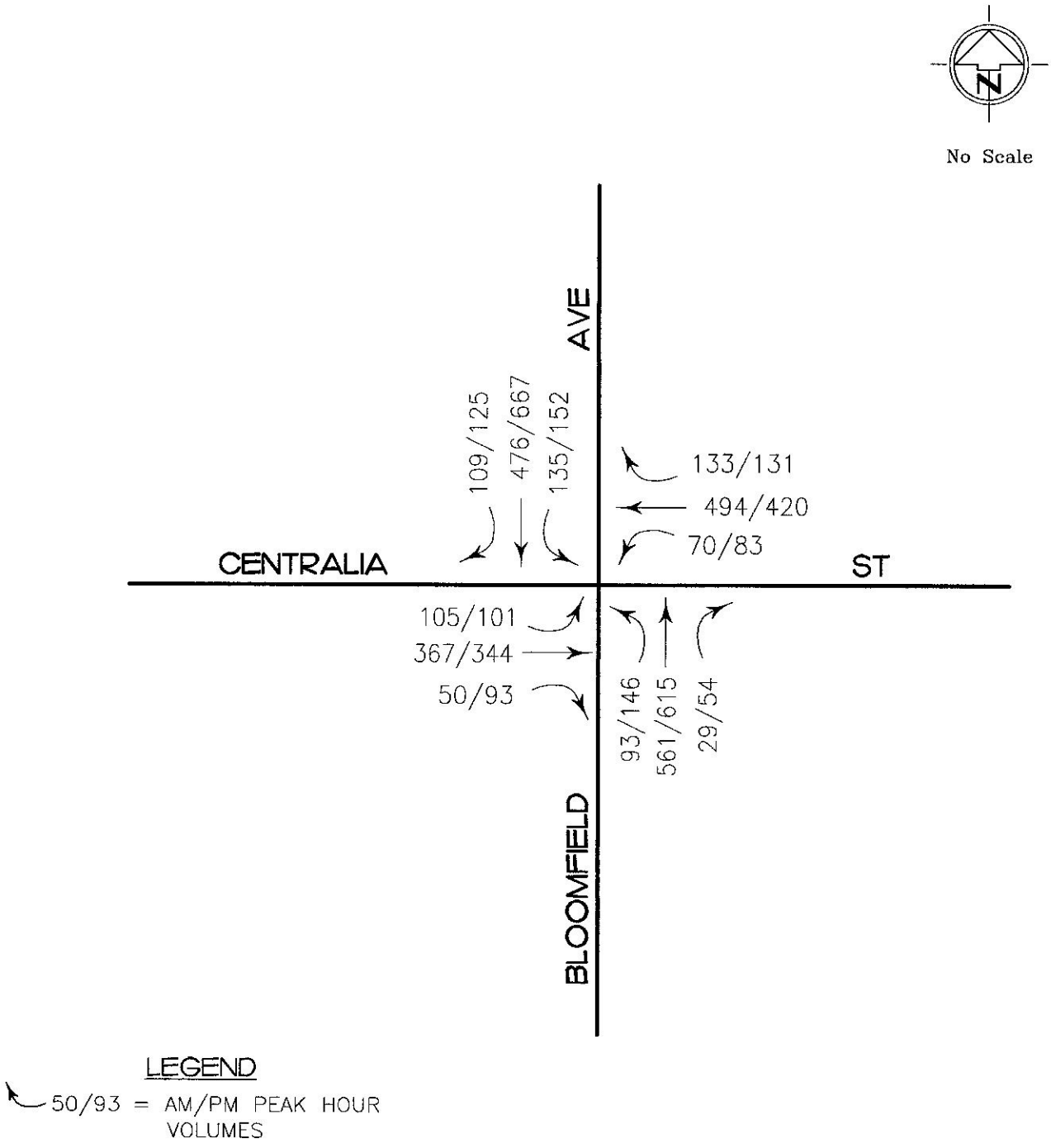
The ICU analyses findings for Existing + Project conditions are summarized in **Table 1**. The study intersections continue to operate at an acceptable LOS B during both the AM and PM peak hours which indicates, the Project does not have a significant environmental Project traffic impact.

### Mitigation Measures

**Table 1** shows the Project will not have any significant impact at the study location so no mitigation measures are required. In fact, not only will the intersection maintain an acceptable LOS, the Project has no measurable ICU impact on the adjacent Bloomfield/Centralia study intersection.

## FUTURE: PRE-PROJECT CONDITIONS

Analyses of future conditions both with and without the project were conducted at the study intersection. Based on direction from the City of Lakewood, projection of future traffic volumes is based on a growth factor. These analyses examine condition before and after construction/occupancy of the proposed Project.




EXISTING + PROJECT PEAK HOUR VOLUMES

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 5

**Traffic Growth**

Traffic growth projections of 1.5% per year were incorporated into the study consistent with Los Angeles County CMP traffic model data, to provide estimates of future traffic conditions. For purposes of this study, completion of the Project was assumed to occur sometime in year 2015. All existing traffic volumes at the study intersection were increased by three percent (3%), to reflect a conservative estimate of pre-Project traffic volumes. The traffic growth accounts for general traffic increases, as well as potential traffic impacts generated by other projects in the study area.

**Future Without Project Analysis**

Future traffic conditions, without the proposed Project were analyzed using the ICU analyses at the study intersection. These volumes are illustrated in **Figure 6**. The results of the ICU analyses are summarized in **Table 3**. Under Future Pre-Project conditions, the study intersection continue to operate at acceptable Levels of Service during both the AM and PM peak hours. The ICU worksheets can be referenced in **Appendix B**.

## FUTURE: POST-PROJECT CONDITIONS (Pre-Project + Project)

**Proposed Project Impacts**

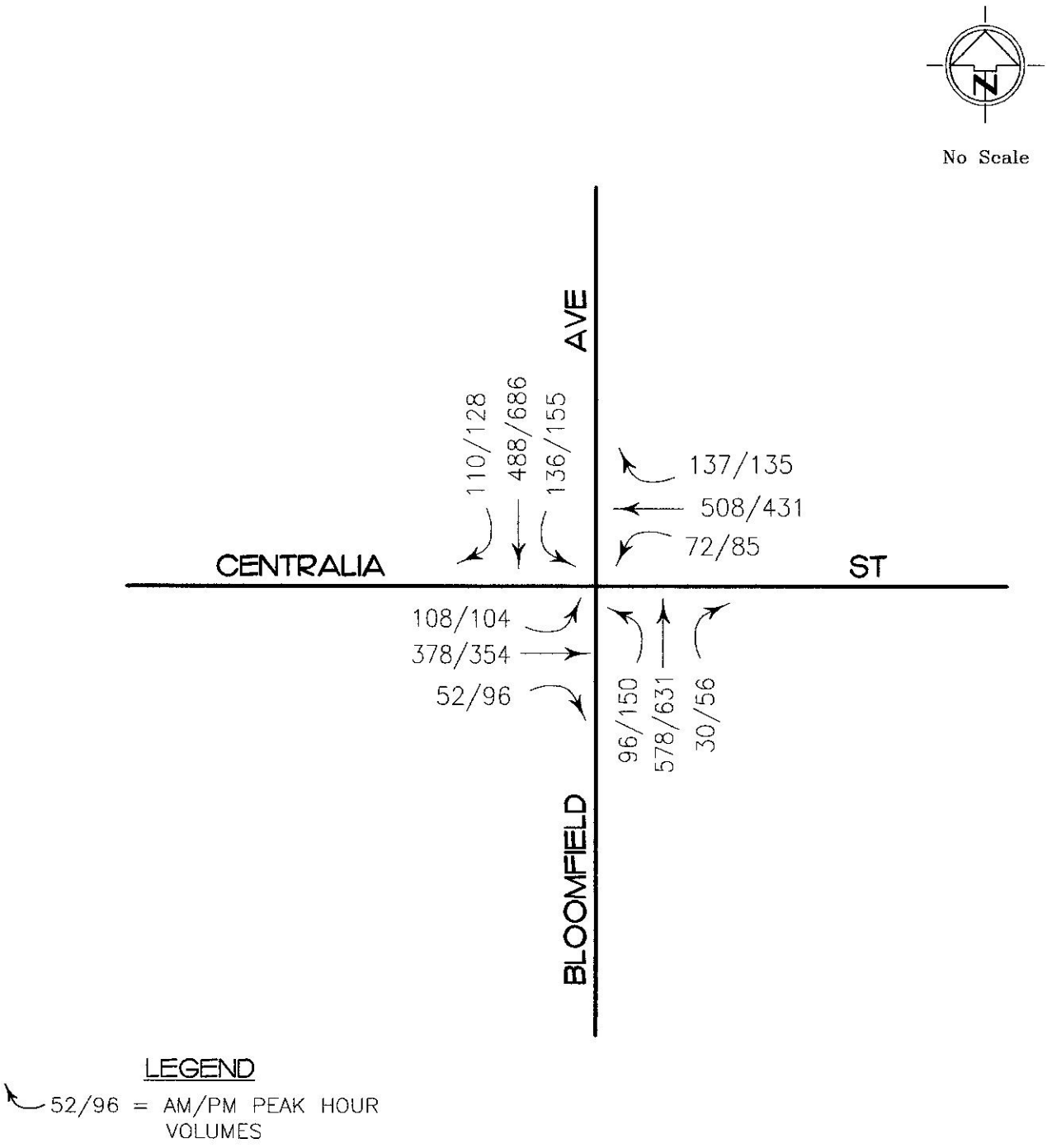
The proposed Project trips shown in **Figure 4** were added to the Pre-Project traffic volumes, so Post-Project (Pre-Project + Project) conditions could be evaluated. The resulting future, with Project traffic volumes are shown in **Figure 7**. The ICU analyses were again applied to the study intersection. The ICU summary worksheets document the calculations and are included in **Appendix B**. As shown in **Table 3**, the study intersections maintain acceptable Levels of Services and there are no significant Project traffic impacts.

## CONGESTION MANAGEMENT PROGRAM (CMP) ANALYSIS

With the passage of the gas tax increase (Proposition 111) in June 1990, came a requirement that each urbanized area in the State with a population of 50,000 or more, adopt a Congestion Management Program ("CMP"). A program was developed for Los Angeles County, with input from local and regional agencies, and a summary of the efforts was published in the Congestion Management Program for Los Angeles County. This manual is continually updated and distributed for use with the most recent update titled "*2010 Congestion Management Program*". The updates have maintained the same basic guidelines for CMP Traffic Impact Analysis ("CMP TIA") compliance.

In general, this traffic study satisfies Los Angeles County CMP TIA requirements. An important CMP verification is to ensure that the recommended CMP study locations are included in the analyses to allow a conclusion that the CMP guidelines have been satisfied. The following are the Los Angeles County CMP recommendations, which identify the study area:

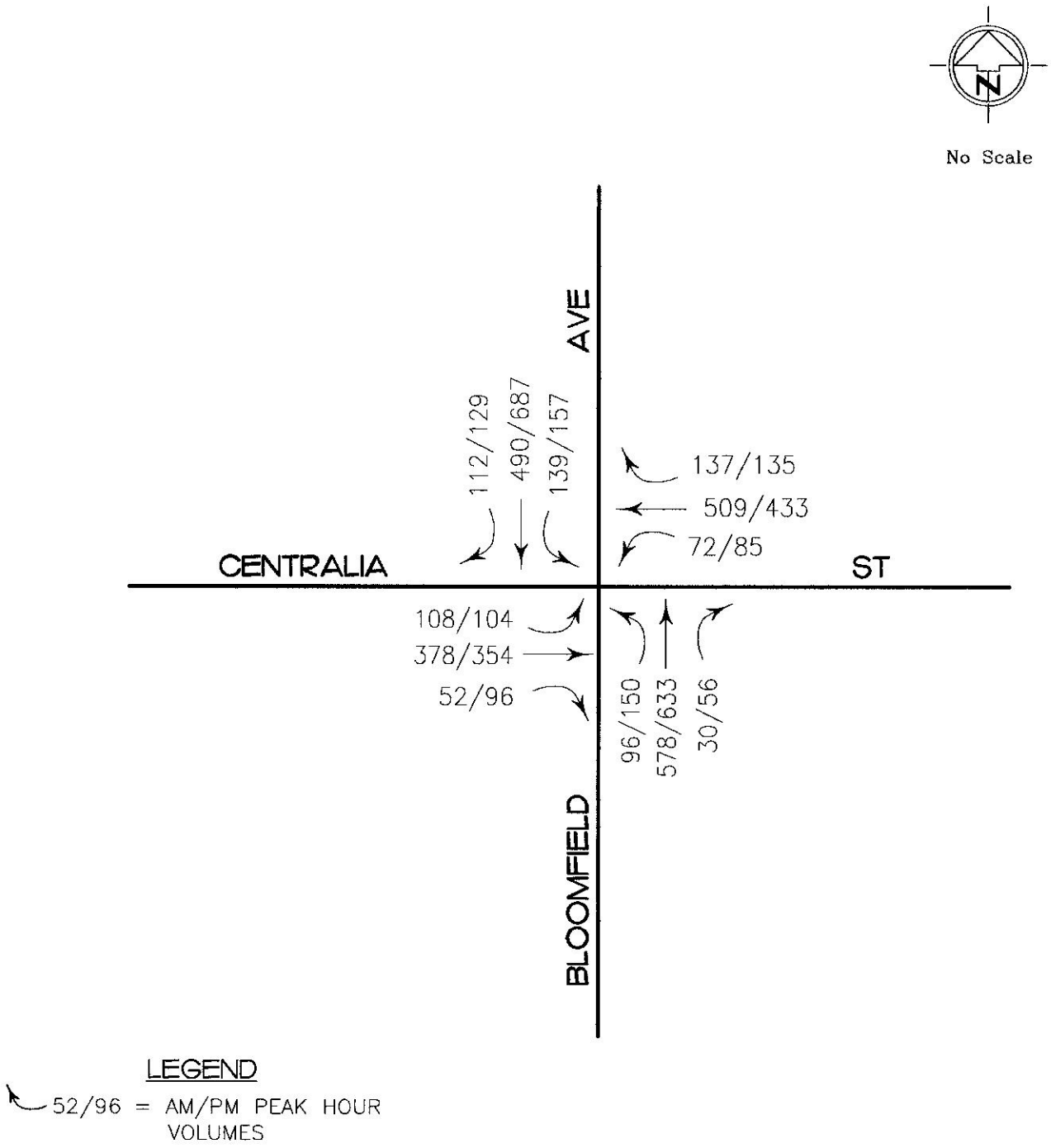
> All CMP arterial monitoring intersections where the project would add 50 trips in the AM or PM peak hour; and




FUTURE WITHOUT PROJECT PEAK HOUR VOLUMES

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 6




# FUTURE WITH PROJECT PEAK HOUR VOLUMES

SASAKI TRANSPORTATION SERVICES, INC.

FIGURE 7

All CMP freeway monitoring stations where the project would add 150 trips in either direction in the AM or PM peak hour.

Since the Project generates a maximum of 14 trips during either the AM or PM peak hour, there are no added CMP analyses needed, and the Project is not expected to have any CMP impacts.

## SUMMARY

Traffic factors for the proposed apartment Project at the northwest corner of the Bloomfield/Centralia intersection were examined and the potential traffic impacts documented. The analyses examined Existing, Existing + Project, future Pre-Project and Post-Project conditions. The potential traffic impacts of the Project were evaluated and no mitigation/improvement measures are needed. The principal findings of this study are listed below.

1) The proposed Project would result in a 22-unit apartment building, to be constructed on vacant land at the northeast corner of Bloomfield/Centralia in the City of Lakewood. The Project would take access through and presumably become a part of the existing Villa Madrid apartment complex.

2) Under "Existing" conditions the study intersection operates at acceptable Levels of Service ("LOS") for AM and PM peak hour conditions.

3) The trip generation potential for the Project is based on ITE standard reference material, the proposed Project use, and size. Conservative assumptions were incorporated in the analyses to provide a "worst case" evaluation.

4) **Figure 4** shows Project traffic volumes at the adjacent study intersection, as well as at the driveway locations. It should be noted that four existing driveways in close proximity to the Bloomfield/Centralia intersection would be closed in conjunction with the Project, and access would be taken, internal to the existing Villa Madrid complex and use existing driveways to access the adjacent arterials. The closing of the four driveways at the Project site provides desirable traffic operational benefits for the adjacent street system.

5) For "Existing + Project" conditions the study intersection maintains acceptable LOS operations.

6) The City of Lakewood (which uses Los Angeles County, CMP TIA guidelines has significant impact thresholds for evaluating Project traffic impacts. The study intersection has no significant Project impacts as shown in **Tables 1 and 3**, which serves to satisfy required CEQA findings.

7) Under "Future Pre-Project" (without Project) conditions, the study intersection will have acceptable LOS operations.

8) For "Future Post-Project" (with Project) conditions the study intersections will maintain acceptable LOS operations, and there would be no significant Project traffic impacts.

**Mitigation Measures**

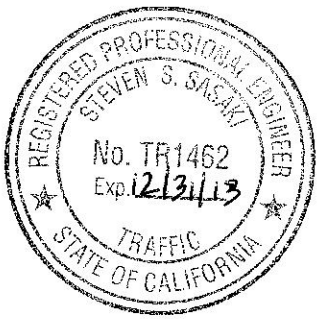
No mitigation measures are needed to address the potential Project related traffic impacts. The analyses showed no significant Project traffic impacts.

********

We trust that these analyses will be of assistance to you, the City of Lakewood. If you have any questions or comments, please do not hesitate to contact us.

Respectfully submitted,
**SASAKI TRANSPORTATION SERVICES, INC.**

Steven S. Sasaki, P.E., PTOE
Principal
Registered Professional Engineer
State of California, Civil and Traffic
C52768 & TR1462



# APPENDIX A

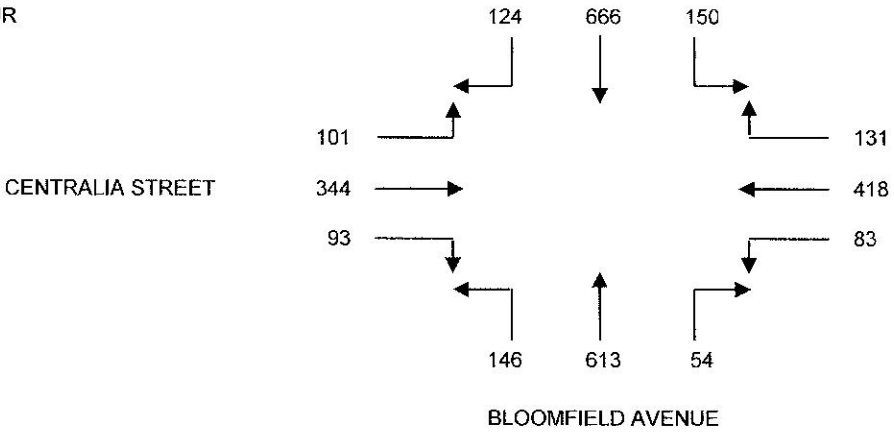
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: SASAKI TRANSPORTATION SERVICES, INC.
PROJECT: CITY OF LAKEWOOD
DATE: TUESDAY, SEPTEMBER 10, 2013
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S BLOOMFIELD AVENUE
E/W CENTRALIA STREET
FILE NUMBER: 1-PM

| 15 MINUTE TOTALS | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0400-0415 | 20 | 120 | 34 | 18 | 84 | 16 | 22 | 152 | 33 | 12 | 91 | 33 |
| 0415-0430 | 37 | 107 | 38 | 24 | 86 | 18 | 18 | 121 | 22 | 18 | 92 | 28 |
| 0430-0445 | 20 | 117 | 30 | 20 | 84 | 20 | 18 | 138 | 30 | 25 | 84 | 22 |
| 0445-0500 | 24 | 159 | 33 | 25 | 89 | 23 | 15 | 141 | 33 | 24 | 84 | 24 |
| 0500-0515 | 30 | 155 | 33 | 35 | 101 | 20 | 14 | 158 | 42 | 22 | 83 | 23 |
| 0515-0530 | 39 | 182 | 47 | 40 | 126 | 23 | 13 | 172 | 41 | 25 | 96 | 32 |
| 0530-0545 | 31 | 170 | 37 | 31 | 102 | 17 | 12 | 142 | 30 | 22 | 81 | 22 |
| 0545-0600 | 23 | 152 | 36 | 27 | 92 | 14 | 10 | 156 | 26 | 20 | 73 | 21 |

| 1 HOUR TOTALS | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0400-0500 | 101 | 503 | 135 | 87 | 343 | 77 | 73 | 552 | 118 | 79 | 351 | 107 | 2526 |
| 0415-0515 | 111 | 538 | 134 | 104 | 360 | 81 | 65 | 558 | 127 | 89 | 343 | 97 | 2607 |
| 0430-0530 | 113 | 613 | 143 | 120 | 400 | 86 | 60 | 609 | 146 | 96 | 347 | 101 | 2834 |
| 0445-0545 | 124 | 666 | 150 | 131 | 418 | 83 | 54 | 613 | 146 | 93 | 344 | 101 | 2923 |
| 0500-0600 | 123 | 659 | 153 | 133 | 421 | 74 | 49 | 628 | 139 | 89 | 333 | 98 | 2899 |

P.M. PEAK HOUR
0445-0545




DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

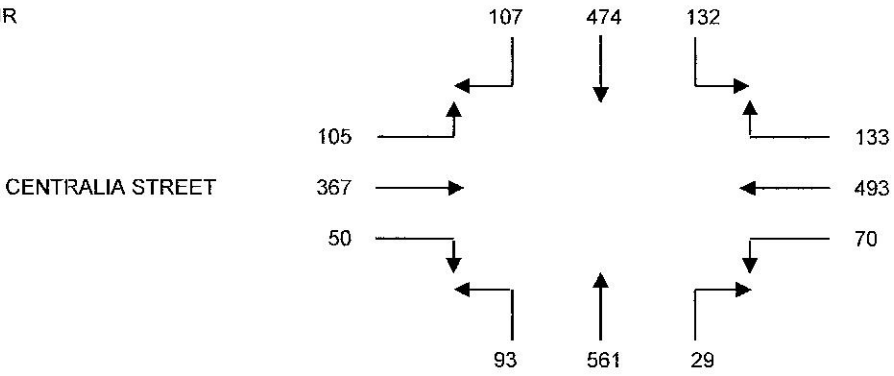
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: SASAKI TRANSPORTATION SERVICES, INC.
PROJECT: CITY OF LAKEWOOD
DATE: TUESDAY, SEPTEMBER 10, 2013
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S BLOOMFIELD AVENUE
E/W CENTRALIA STREET
FILE NUMBER: 1-AM

| 15 MINUTE TOTALS | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0700-0715 | 18 | 105 | 19 | 24 | 97 | 11 | 5 | 128 | 22 | 8 | 81 | 25 |
| 0715-0730 | 25 | 130 | 25 | 34 | 108 | 14 | 4 | 148 | 30 | 12 | 97 | 38 |
| 0730-0745 | 32 | 148 | 39 | 39 | 158 | 18 | 6 | 162 | 23 | 10 | 99 | 27 |
| 0745-0800 | 24 | 116 | 38 | 27 | 126 | 18 | 8 | 125 | 21 | 16 | 91 | 20 |
| 0800-0815 | 26 | 80 | 30 | 33 | 101 | 20 | 11 | 126 | 19 | 12 | 80 | 20 |
| 0815-0830 | 28 | 91 | 35 | 29 | 122 | 17 | 8 | 118 | 21 | 17 | 91 | 20 |
| 0830-0845 | 22 | 85 | 33 | 31 | 100 | 14 | 8 | 98 | 18 | 13 | 71 | 19 |
| 0845-0900 | 20 | 80 | 24 | 29 | 90 | 14 | 9 | 87 | 15 | 12 | 69 | 19 |

| 1 HOUR TOTALS | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0700-0800 | 99 | 499 | 121 | 124 | 489 | 61 | 23 | 563 | 96 | 46 | 368 | 110 | 2599 |
| 0715-0815 | 107 | 474 | 132 | 133 | 493 | 70 | 29 | 561 | 93 | 50 | 367 | 105 | 2614 |
| 0730-0830 | 110 | 435 | 142 | 128 | 507 | 73 | 33 | 531 | 84 | 55 | 361 | 87 | 2546 |
| 0745-0845 | 100 | 372 | 136 | 120 | 449 | 69 | 35 | 467 | 79 | 58 | 333 | 79 | 2297 |
| 0800-0900 | 96 | 336 | 122 | 122 | 413 | 65 | 36 | 429 | 73 | 54 | 311 | 78 | 2135 |

A.M. PEAK HOUR
0715-0815

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