*City of Beverly Hills*

# 9000 Wilshire Boulevard Commercial Project

## Initial Study

**July 2016**

rincon

Environmental Scientists Planners Engineers

# 9000 Wilshire Boulevard Commercial Project

# Initial Study

*Prepared by:*

**City of Beverly Hills**
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*July 2016*

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# INITIAL STUDY

1. **Project Title:** 9000 Wilshire Boulevard Commercial Project

2. **Lead Agency Name and Address:** City of Beverly Hills
Community Development Department
455 North Rexford Drive, First Floor
Beverly Hills, CA 90210

3. **Contact Person and Phone Number:** Emily Gable, Assistant Planner, (310) 285-1192

4. **Project Location:** The project site is a relatively flat, rectangular area of 15,876 square feet (0.36 acres) located on the southwest corner at the intersection of Wilshire Boulevard and S. Almont Drive in the City of Beverly Hills. The project site is currently developed with a one-story retail building and a two-story retail building, on the northern portion of the project site. These two buildings cover an area of 6,832 square feet, approximately 43 percent of the project site. A paved parking lot approximately 5,500 square feet in size is located behind the buildings, adjacent to the alley. The buildings are served by an existing access drive on S. Almont Drive and via the alley at the rear of the site. Figure 1 shows the regional location of the project site and Figure 2 shows the project site location.

5. **Project Sponsor's Name and Address:** 9000 Wilshire LLC
1805 Colorado Avenue
Santa Monica, California 90404
(310) 447-3000

6. **General Plan Designation:** Commercial Low-Density General

7. **Zoning:** C-3 (Commercial)

8. **Description of Project:** The project would involve demolition of the existing two commercial buildings and the removal of the paved parking lot. The two-story building on the east side of the site is currently occupied by an antique/art shop, and the one-story building on the west side of the site consists of three retail spaces that are occupied by a café, vape shop/lounge, and a vacant commercial space. After demolition, construction of a new 31,702 square-foot building would occur, which would consist of three stories of commercial office development and four levels of subterranean parking. Figures 3a through 3e show the proposed site plan. Table 1 shows the characteristics of the proposed commercial building. Figure 4 shows photographs of the existing buildings on the project site that would be demolished to accommodate the proposed project.

**Table 1**
**Project Characteristics**

| | |
|---|---|
| **Address** | 9000-9010 Wilshire Boulevard |
| **Assessor's Parcel Number (APN)** | 4331-028-003, 4331-028-004 |
| **Lot Area** | 15,876 sf (0.36 acres) |
| **Building Footprint** | Approximately 14,558 sf |
| **Floor Area** | Ground Floor: 8,006 sf<br>2nd Floor: 11,348 sf<br>3rd Floor: 12,348 sf<br>Total: 31,702 sf[1] |
| **Land Uses** | Commercial Office: 31,702 sf<br>Rooftop Lunchroom: 2,049 sf<br>Parking: 47,447 sf |
| **Height** | 45 feet[2]<br>3 stories above grade plus a rooftop level, with 4 underground levels of parking below |
| **Setbacks** | Front: 0 feet<br>Rear: 6 feet<br>Side: 0 feet |
| **Parking** | 91 parking spaces<br>11 bicycle racks |

*1 The total floor area is calculated pursuant to Beverly Hills Municipal Code §10-3-100 and does not include parking areas, elevator shafts, stair shafts, rooms housing building operating equipment or machinery rooms, or areas outside the surrounding walls of a building or structure.*
*2 The listed height does not include rooftop penthouse structures, which would add up to 15 feet to the building's height. Parapets not more than 45" in height and rooftop lunchrooms in accordance with BHMC §10-3-3107 are exempt from the height restrictions,*
*sf = square feet*

The proposed building footprint of approximately 14,558 square feet would occupy approximately 92 percent of the 15,876 square-foot lot. The proposed building would have a total floor area of 31,702 gross square feet, not including parking areas, elevator and stair shafts, rooms housing operating equipment or machinery, and a 2,049 square-foot rooftop lunchroom for building occupants only. Outdoor patios would be provided on the second floor and roof. The proposed building would include four levels of subterranean parking, with 91 parking spaces in a 47,447 square-foot area. Four spaces would be accessible to persons with disabilities. Eleven racks would be installed for bicycle parking. The parking structure would be accessed from a driveway along S. Almont Drive.

The proposed building would have a height of 45 feet to the top of the roof, above which a 3-foot, 6-inch metal panel would serve as a parapet. A painted steel brise soleil (perforated screen to filter sunlight) above the rooftop lunch terrace and mechanical area would extend 15 feet above the top of the roof. Architecturally, the building would be characterized by clear glass curtain walls with dark metal panels between floors and at the rooftop parapet. A green wall planting with climbing vegetation at the outdoor terrace on the second floor would serve as an accent, visible from street level at Wilshire Boulevard.

Table 2 compares existing conditions to the proposed project with respect to building footprint and height.

**Table 2**
**Summary of Proposed Changes**

| | Existing Development | Proposed Project | Change |
|---|---|---|---|
| **Building Footprint** | 9000 Wilshire Blvd: 3,950 sf<br>9006 Wilshire Blvd: 3,000 sf<br>Total: 6,950 sf | 14,558 sf | +7,608 sf |
| **Height** | 9000 Wilshire Blvd: 26 feet<br>9006 Wilshire Blvd: 20 feet | 45 feet[1] | +19 feet |

*1 The listed height does not include rooftop penthouse structures, which would add up to 15 feet to the building's height.*

The project site would be landscaped with all drought-tolerant plants. Ornamental grasses, shrubs, and herbaceous plants would border the rooftop lunch terrace and second floor terrace area. Bamboo would be planted as a screen at the rooftop lunch terrace, second floor terrace area, and the southwest corner of ground floor. A green wall planting with climbing vines would be planted on the second floor terrace area, against the building to the west of the site. A large privacy screen of juniper trees, eventually reaching a height of 15-30 feet at maturity, would be planted at southern edge of project site. One Chinese elm street tree would be removed from S. Almont Drive near the southeast corner of the site to clear space for the proposed curb cut.

*Parking and Site Access*
The proposed project would include four levels of subterranean parking, with 91 parking spaces in a 47,447 square-foot area. Four spaces would be accessible to persons with disabilities and eleven racks would be installed for bicycle parking. Vehicular access to the project would be provided from S. Almont Drive and the rear alley. Pedestrians would access the proposed building from double-door entrances on Wilshire Boulevard and S. Almont Drive and an egress door at the northwest corner of the building on Wilshire Boulevard.

The existing curb cut on S. Almont Drive would be removed and a new one would be constructed at the southeast edge of the site. This curb cut would serve as an entry/exit point for a 22-foot-wide driveway leading to the underground parking garage and the exit to an adjacent loading dock. Vehicles would enter the loading dock via the alley. A 2-foot, 6-inch strip at the southern edge of the project site would be set aside as a "highway dedication" for the alley.

*Utilities*
The City of Beverly Hills Public Works Department provides the following utility services: solid waste, water, wastewater, and stormwater. Southern California Edison supplies electricity and the Southern California Gas Company provides gas to the City of Beverly Hills.

*Construction and Grading*
Construction of the proposed project is expected to occur over approximately 18 months. Construction activities would be separated into four phases. The first phase includes initial site preparation and demolition of existing buildings; the second phase includes shoring and mass excavation; and the third phase includes construction of the subterranean parking and proposed building, glazing system installation, and roofing. The maximum depth of excavation for the third phase would be approximately 44 feet and the total amount of exported soil associated with excavation would be approximately 25,872 cubic yards. The fourth construction phase would involve core and shell buildout, which includes the elevator installation. Construction equipment for the project would include earthwork equipment such as drills for shoring, crane, concrete pump, and miscellaneous small tools.

*Green Building Features*
The proposed project would be Leadership in Energy and Environmental Design (LEED) Gold certified or better, using less water and energy and reducing greenhouse gas emissions compared to a non-certified LEED commercial building. A building can earn credits toward LEED certification through performance in five key areas including sustainable sites, water savings, energy and atmosphere, materials and resources, and indoor environmental quality. The sixth category, innovation and design process, awards points for exceeding the minimum criteria in the first five categories (LEED, 2016). Solar panels and water conservation elements would be incorporated into the project design to reduce the building's energy utilization and achieve LEED certification. Half of the roof would contain solar panels to capture the suns energy.

*Applicant-Proposed Conditions of Approval*
The City of Beverly Hills General Plan, Chapter 5: Open Space, contains policies intended to protect, enhance, and expand open space resources, remaining natural areas, and significant wildlife and vegetation in the City (Goal OS 1) including nesting birds. Implementation of Biological Condition 1, intended to be applied to the project permit conditions of approval for consistency with the City's General Plan, would ensure no impacts would occur to nesting birds and consistency with the City of Beverly Hills General Plan (Goal OS 1 and Policy OS 1.1), the California Department of Fish and Game (CDFG) Code, and the Migratory Bird Treaty Act. Biological Condition 1 ensures consistency with the City of Beverly Hills General Plan Goal OS 1 by requiring protection for nesting birds within the City.

**Biological Condition 1 –** Avoid Bird Nesting Season or Conduct a Nesting Bird Survey and Provide Buffers. Vegetation removal and initial ground disturbance must occur either:

**a)** Outside the bird and raptor breeding season, which is typically February 1 through August 31 (as early as January 1 for some raptors), or

**b)** If vegetation clearing occurs during the breeding season, one pre-construction bird nesting survey shall be conducted not more than one week prior to vegetation clearing to determine the locations of nesting birds. The bird survey shall be conducted by a qualified biologist. If a nesting bird or special status species is located, consultation with the local California Department of Fish and Wildlife (CDFW) representative shall occur to determine what avoidance actions may be taken. Generally, if an active bird nest is found, a minimum 100-foot buffer (or as otherwise directed by CDFW) would be established surrounding the nest(s), which shall be flagged for avoidance. The

results of the nesting bird survey(s) and any buffer efforts as a result of those surveys shall be documented in a brief letter report and submitted to the City and the CDFW prior to commencement of clearing.

Implementation of Geological Condition 1 and Geological Condition 2 from the *Geotechnical Engineering Investigation* [for the] *Proposed Commercial Office Building, 9000 Wilshire Boulevard, Beverly Hills, California* would ensure that the proposed building would not be affected by expansive soils.

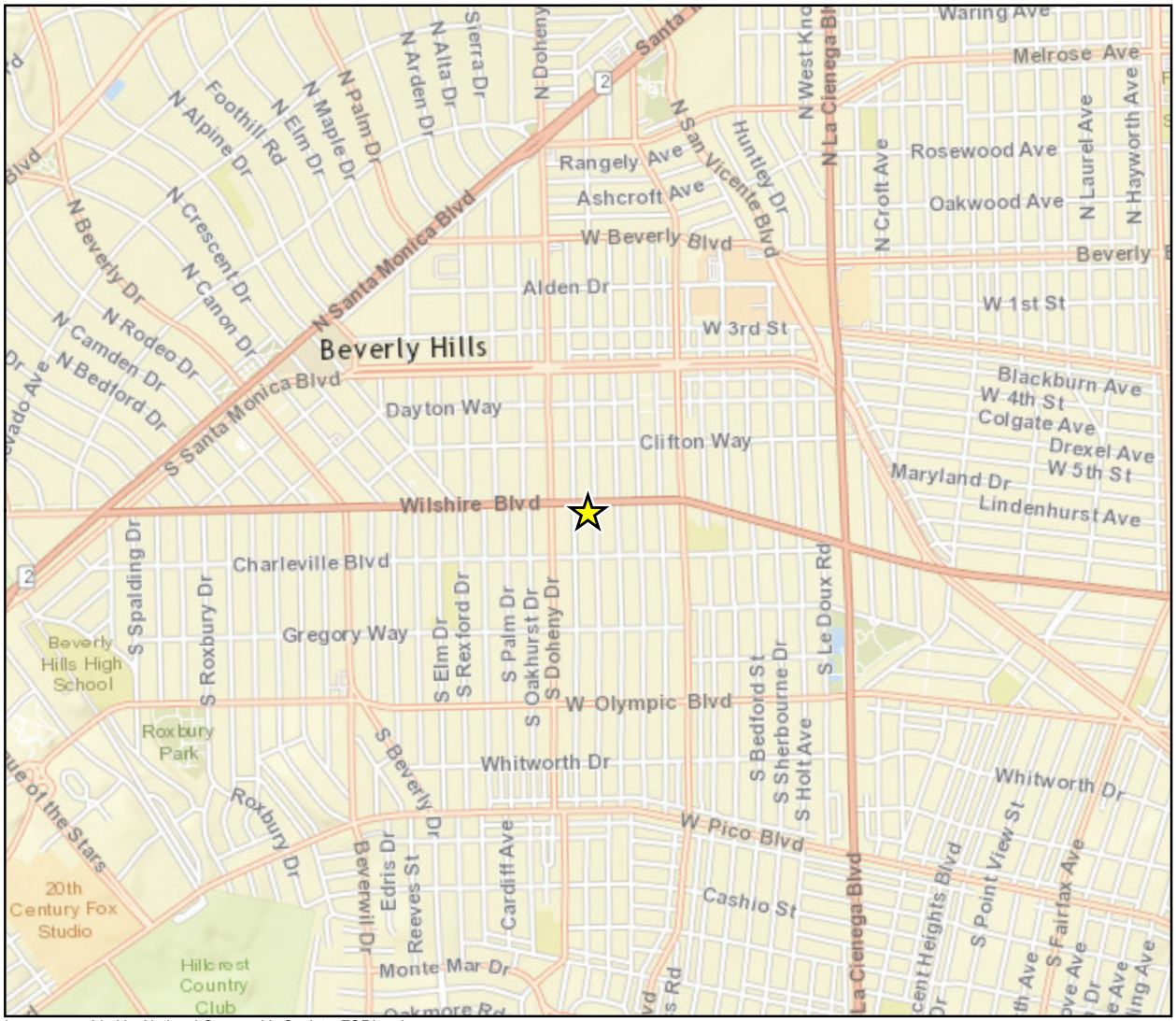
**Geological Condition 1 – Foundation Design.** Due to the depth of the proposed subterranean levels relative to the historically highest groundwater level, the proposed structure shall be designed to resist hydrostatic and uplift pressures based on the historically highest groundwater level. Therefore the proposed structure shall be supported on a mat foundation bearing on the underlying native soils, at the lowest level of the subterranean parking garage. An allowable bearing pressure of 5,000 pounds per square foot may be utilized in the design of the proposed mat foundation. The mat foundation may be designed utilizing a modulus of subgrade reaction of 200 kips per cubic foot. The thickness of the mat foundation shall be designed by the project structural engineer. The bottom of the mat foundation shall be a minimum of 18 inches in depth below the lowest adjacent grade at the perimeter of the structure. Proper waterproofing shall be provided below the base of the mat and a waterproofing consultant shall be retained in order to recommend appropriate products and methods to waterproof below the mat.

Where necessary, uplift anchors may be designed to provide resistance against the anticipated hydrostatic uplift pressures acting on the mat foundations. Uplift anchors shall be a minimum of 12 inches in diameter, and shall be embedded a minimum of 20 feet into the underlying native soils. Uplift anchors may be designed using a frictional capacity of 1.5 kips per lineal foot.

**Geological Condition 2 – Concrete Slabs-on-Grade**. Slabs-on-grade shall be cast over undisturbed native soils or properly controlled fill materials. Any geologic materials loosened or over-excavated shall be wasted from the site or properly compacted to 90 percent of the maximum dry density. Outdoor concrete flatwork shall be a minimum of 4 inches in thickness and shall be cast over undisturbed native soils or properly controlled fill materials.

9. **Surrounding Land Uses and Setting:** The project site is bordered by a commercial development to the west, S. Almont Drive to the east, Wilshire Boulevard to the north, and an alley to the south. There is a six-story retail and office building immediately to the west of the project site, a three-story office building to the east across S. Almont Drive, a three-story office building to the north across Wilshire Boulevard, and a single-family home to the south of the alley.

10. **Necessary Public Agency Approvals:** The proposed project would require a demolition and building permit. In addition, a discretionary permit/entitlement for Development Plan Review of a new building and a rooftop lunchroom would be required




*Imagery provided by National Geographic Society, ESRI and its licensors © 2016. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.*

Project Location

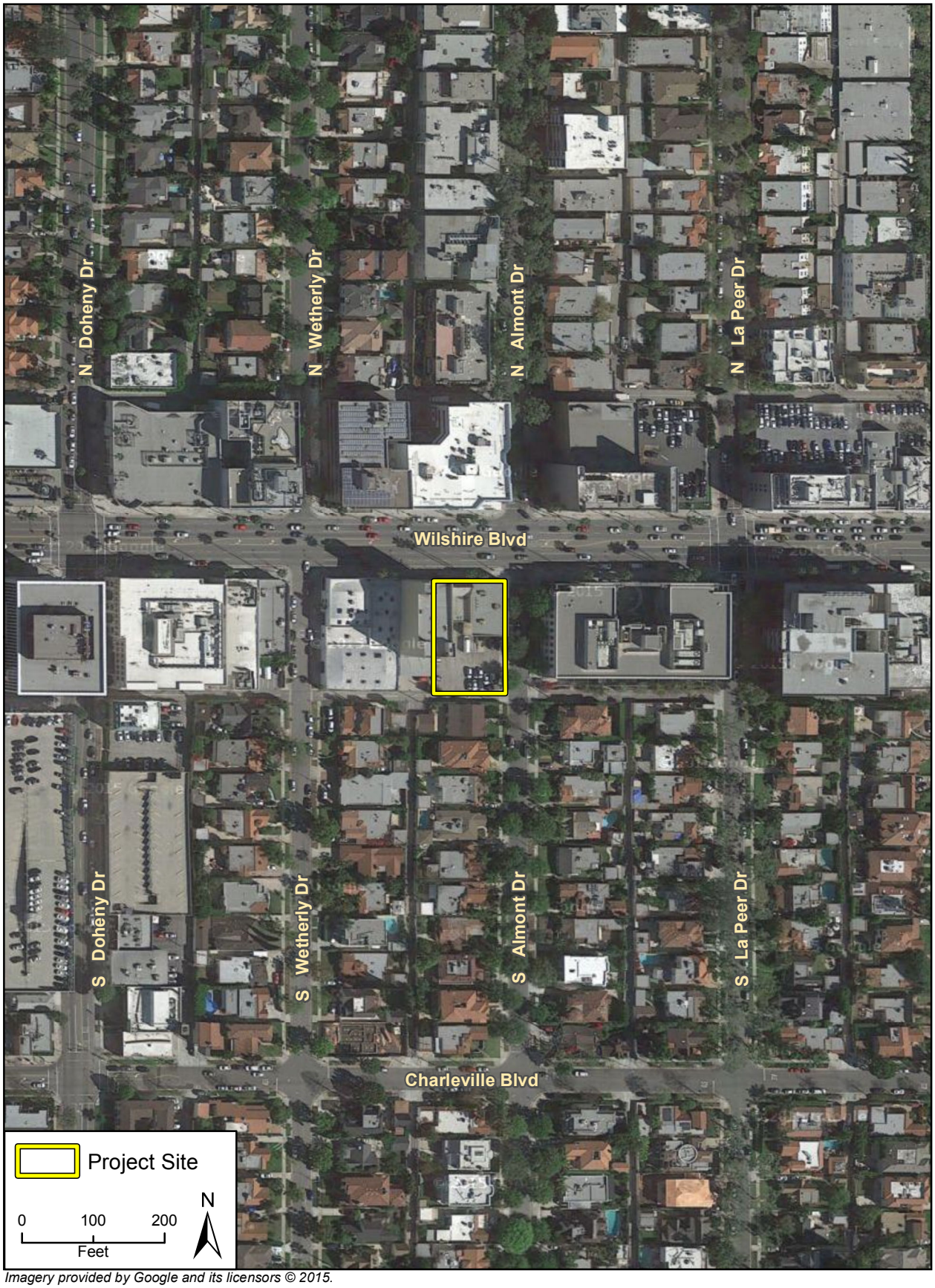
N

0 1,250 2,500

Feet

Regional Location

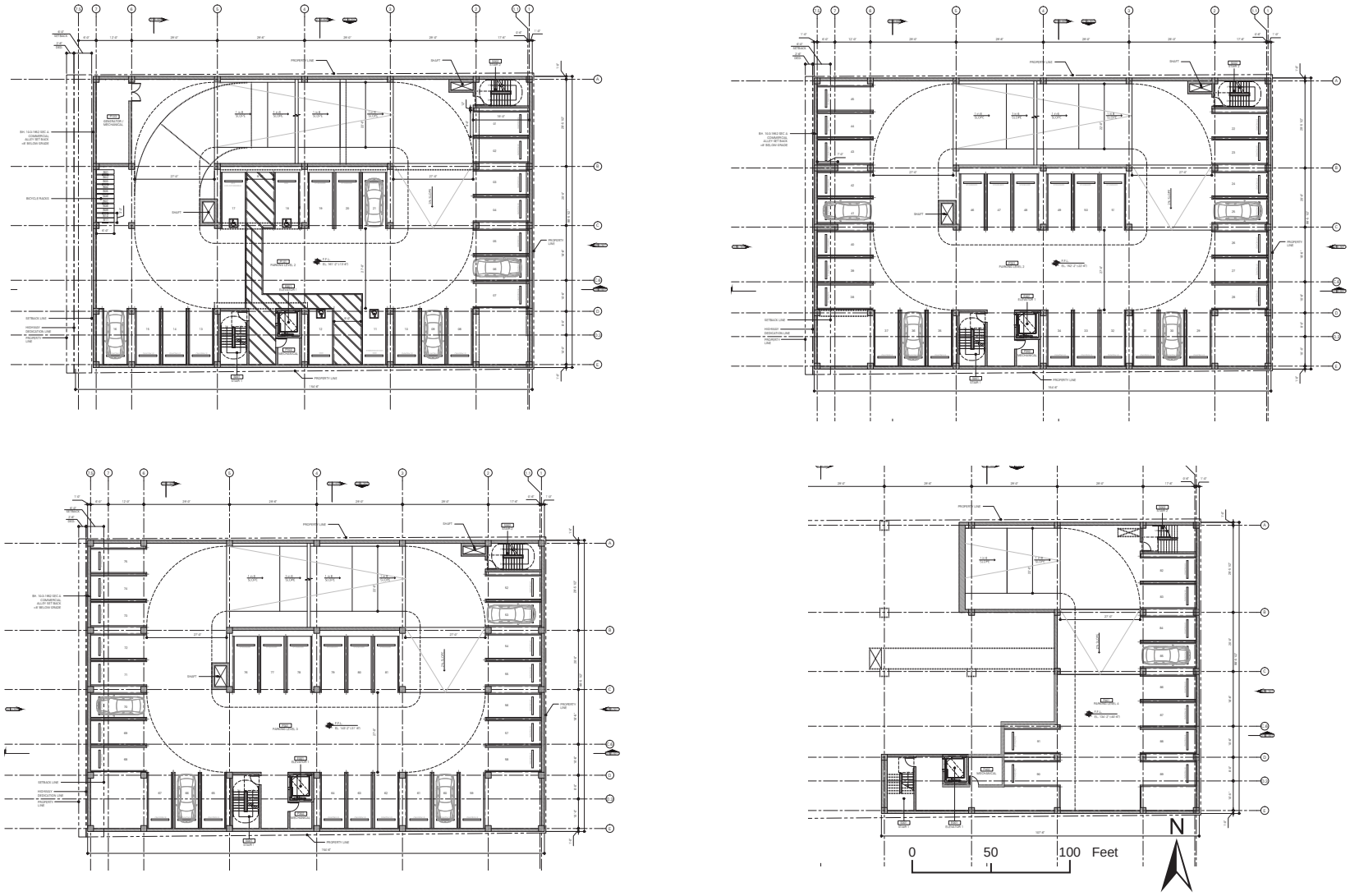
Figure 1




*Imagery provided by Google and its licensors © 2015.*

Project Location

Figure 2

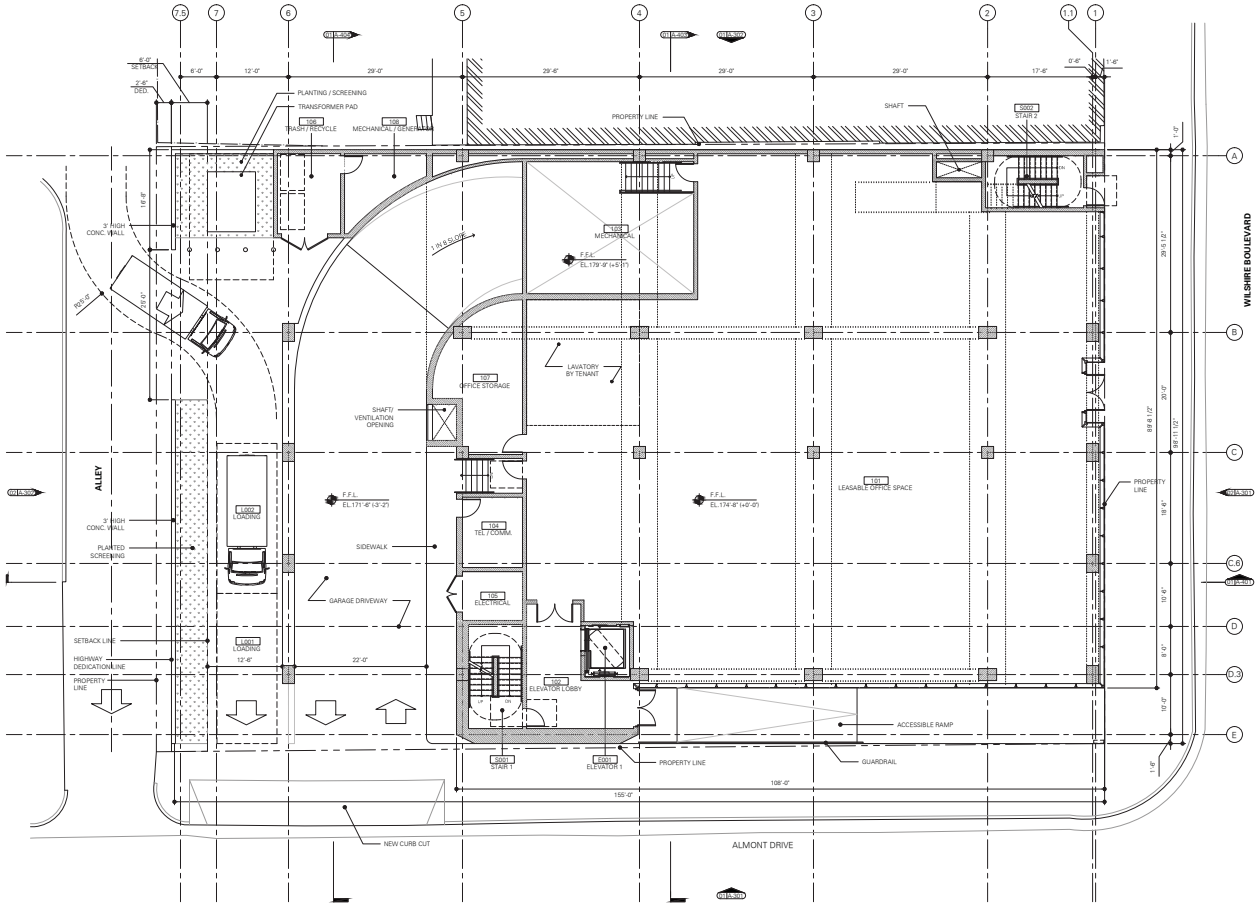



*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*

Office Subterranean Parking Plans, Levels 1-4

Figure 3a

***City of Beverly Hills***




Scale: 1/32" = 1'

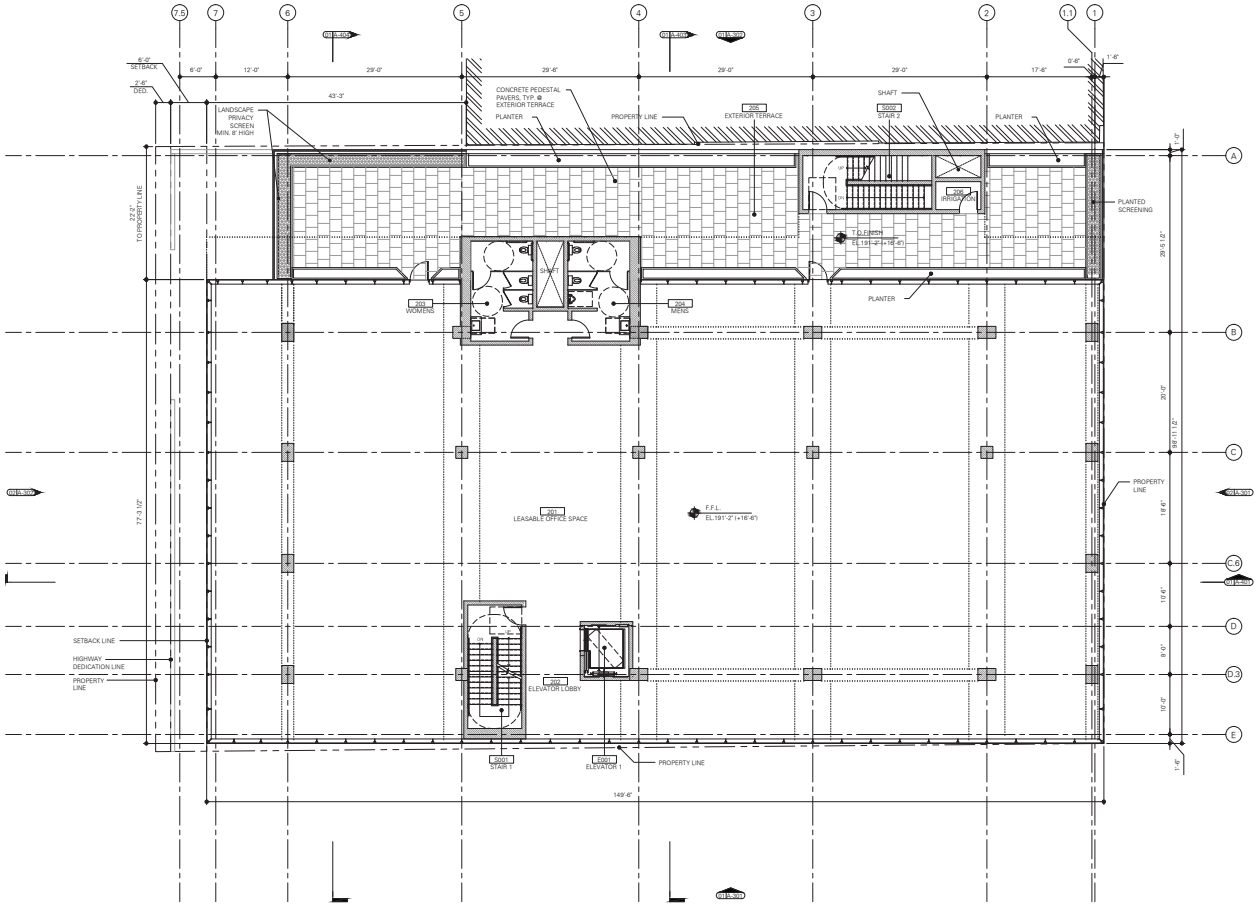
N

*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*

Office Plan Level 1

Figure 3b

***City of Beverly Hills***




Scale: 1/32" = 1'

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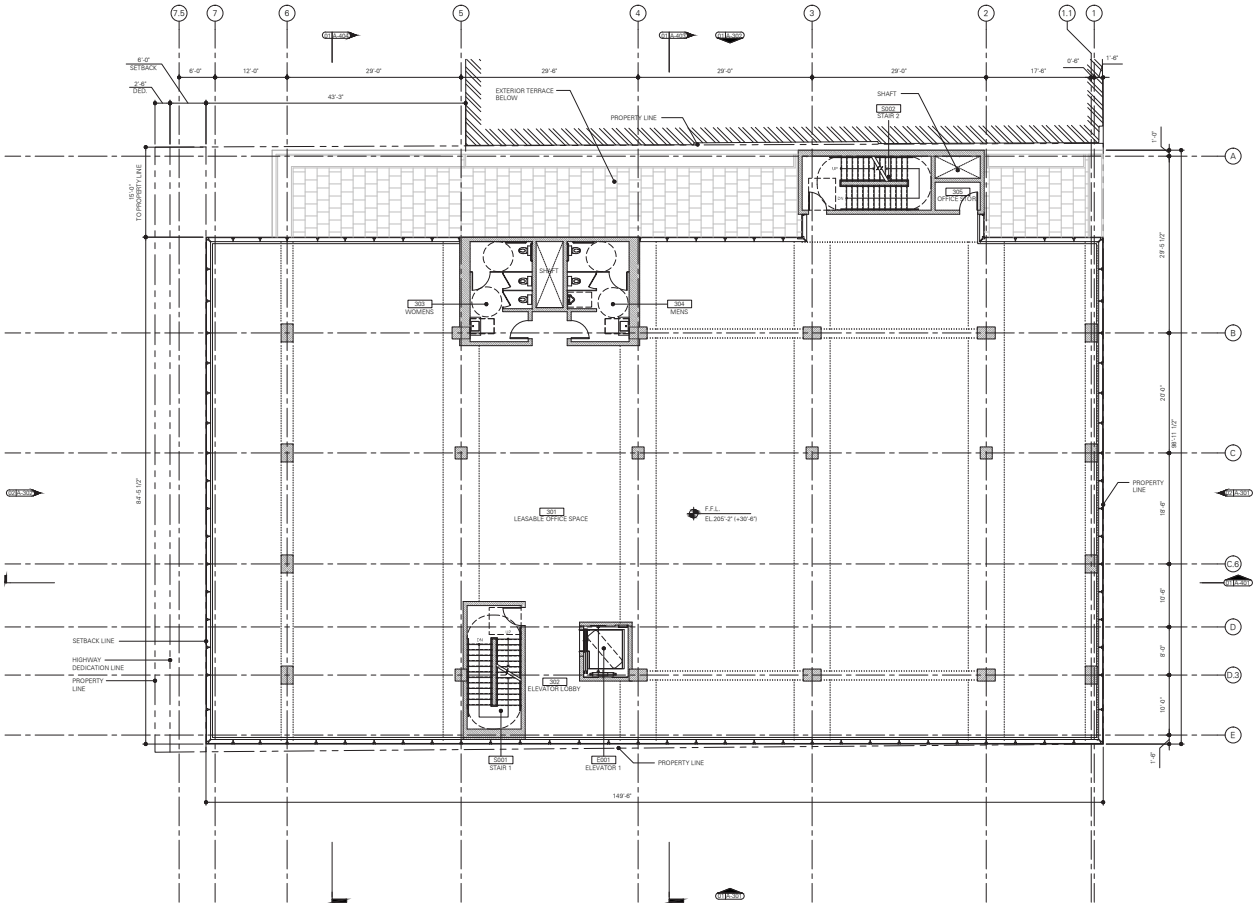
*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*

Office Plan Level 2

Figure 3c

***City of Beverly Hills***



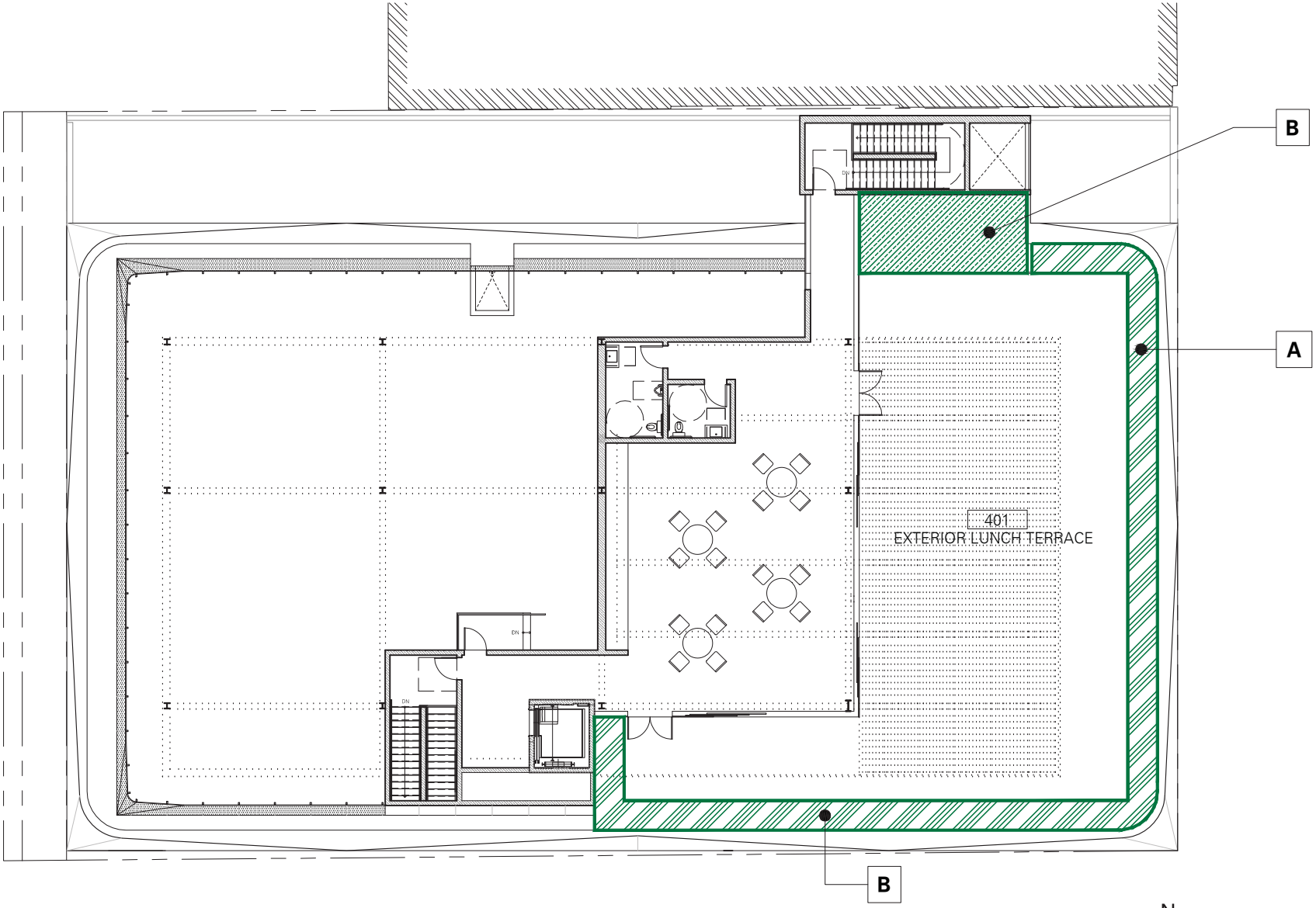

Scale: 1/32" = 1'

N

Office Plan Level 3

Figure 3d

*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*




Scale: 1/32" = 1'

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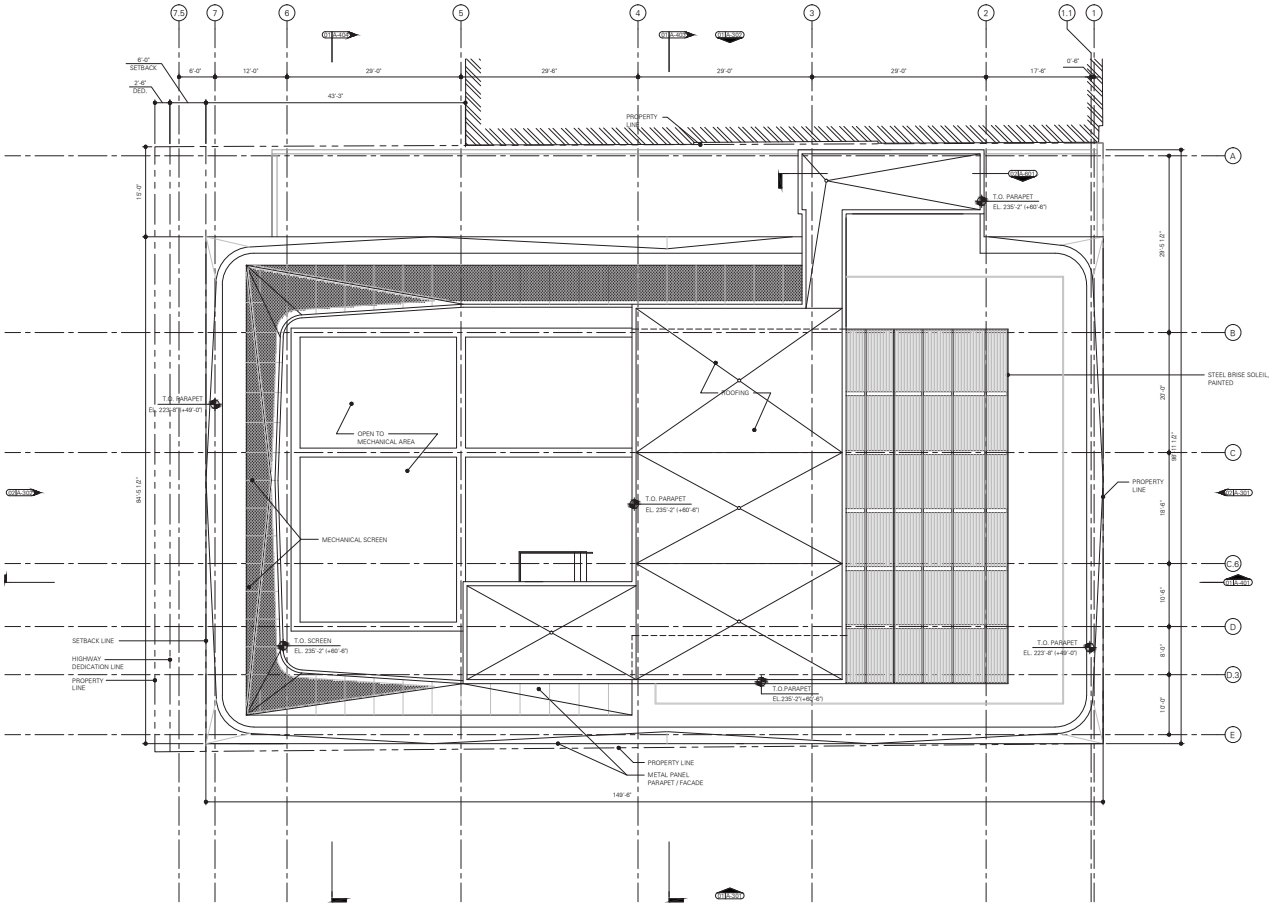
*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*

Office Plan Lunchroom Level

Figure 3e




Scale: 1/32" = 1'

N

*Source: Neil M. Denari Architects, Inc.*
*July 31, 2015*

Rooftop Plan

Figure 3f

***City of Beverly Hills***

**Photo 1:** Facing West, Along Wilshire Blvd.

**Photo 2:** Facing South, Project Site from Across Wilshire Blvd.

**Photo 3:** Facing North, Back of Existing Buildings on Project Site.

**Photo 4:** Facing South, Along S. Almont Drive.

Project Site Photographs

Figure 4

# ENVIRONMENTAL FACTORS AFFECTED

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

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

# DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

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

Masa Alkire, Principal Planner
City of Beverly Hills

Date 7/29/2016

# ENVIRONMENTAL CHECKLIST

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **I. AESTHETICS** – Would the Project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☒ | ☐ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

a) **Less than Significant Impact.** The City's General Plan (*Policy OS 6.1, Protection of Scenic Views*) calls for protection of "scenic views and vistas from public places including City landmarks, hillside vistas and urban views of the City." There are no City landmarks, hillside vistas or notable urban views from public spaces through the project site. There would be a change in the skyline viewshed as seen from Wilshire Boulevard and S. Almont Drive and S. Wetherly Drive, because the existing buildings that occupy the project site are one and two stories and 20 and 26 feet in height, respectively Portions of the skyline that are currently visible along Wilshire Boulevard in front of the project site may also be affected. However, the proposed project's architectural form would generally contribute to, rather than detract from, the urban skyline view because the architecture is similar in form and style to the existing buildings in the project vicinity. In addition, none of the affected street segments are designated on the City's Map LU 1 as a sensitive view corridor.

Based on the above, the proposed project would not substantially hinder views of the skyline from public view areas. Impacts to scenic vistas would be less than significant and further analysis of this issue in an EIR is not warranted.

b) **No Impact.** The project site is generally flat and contains two buildings. The site lacks scenic resources such as trees, rock outcroppings, and vegetation as shown in the site photographs in Figure 4. One Chinese elm tree would be removed as part of the proposed project. The tree is not protected under City ordinances or federal or State regulations and removal would not have a significant impact. The project site is not located on a State Scenic Highway (Caltrans, 2016). No impact would occur and further analysis of this issue in an EIR is not warranted.

c) **Less than Significant Impact.** The following discusses temporary construction effects, long-term visual effects, and shadow effects as they relate to visual character or quality of the site and surrounding area.

Temporary Construction Effects
Construction activities would temporarily alter the visual quality of the site through export of excavated materials, construction of below-grade foundations, building construction, and landscaping. Construction activities would include the storage of equipment and materials, potentially including placement of a crane or cranes during the construction of the upper levels of the building. Due to the temporary nature of construction, these activities would not permanently degrade or modify the existing aesthetic image of the neighborhood or generate substantial long-term contrast with the visual character of the surrounding area.

Long Term Visual Effects
The project site is developed and does not contain any outstanding visual qualities as shown in the photographs in Figure 4. The areas adjacent to the project site contain single or multi-story buildings, including a six-story storage facility immediately west of the project site. Residential development is located south of the project site across the alleyway to the south of Wilshire Boulevard. Multi-story buildings dominate the Wilshire Boulevard corridor in the vicinity of the business triangle and to the east until Robertson Boulevard. In the immediate vicinity of the project site, the buildings range from one story to up to eight stories. As shown in Figure 5, the project would change the visual character of the site, but the proposed building would be of visual quality equal to or higher than that of the existing buildings and would be within the range of heights and intensities of surrounding developments. As such, the change in visual character would not be adverse and the project would not conflict with the visual character of the neighborhood.

Shadow Effects
Shadow impacts are considered significant if the proposed project would "create a new source of shade or shadow which would adversely affect existing shade/shadow-sensitive structures or uses." Facilities and operations sensitive to the effects of shading include solar collectors; nurseries; primarily outdoor-oriented retail uses (e.g., certain restaurants); or routinely useable outdoor spaces associated with recreational, institutional (e.g., schools), or residential land uses. These uses are considered sensitive because sunlight is important to their function, physical comfort, and commerce. The shadow-sensitive uses nearest to the project site are the residences to the south. As shown in Figure 6, the proposed building would not have substantial shadow effects on the residential community to the south of the project site and, therefore, would not create shadows on any sensitive receptors. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

d) **Less than Significant Impact.** Implementation of the project would introduce new sources of light and glare. Potential new sources of lighting include windows, lighting at the subterranean garage entrance, lighting at the outdoor patios, illumination of exterior building areas and signage, and the proposed building would be characterized by clear glass curtain walls with dark metal panels between floors and at the rooftop parapet. In addition, headlights from vehicles entering and exiting the subterranean parking area at night could cast light onto roadways and surrounding properties. The surrounding area is urban in character, with generally high levels of existing lighting, particularly along Wilshire Boulevard. The nearby commercial, residential, and roadway uses generate light and glare along all sides of the property. Primary sources of light adjacent to the project site include lighting associated with the existing commercial and roadway uses including building mounted lighting and headlights

VIEW FROM ALMONT DRIVE (SOUTHEAST CORNER)

VIEW FROM ALMONT DRIVE (EAST ELEVATION)

VIEW FROM WILSHIRE BLVD (NORTHWEST CORNER)

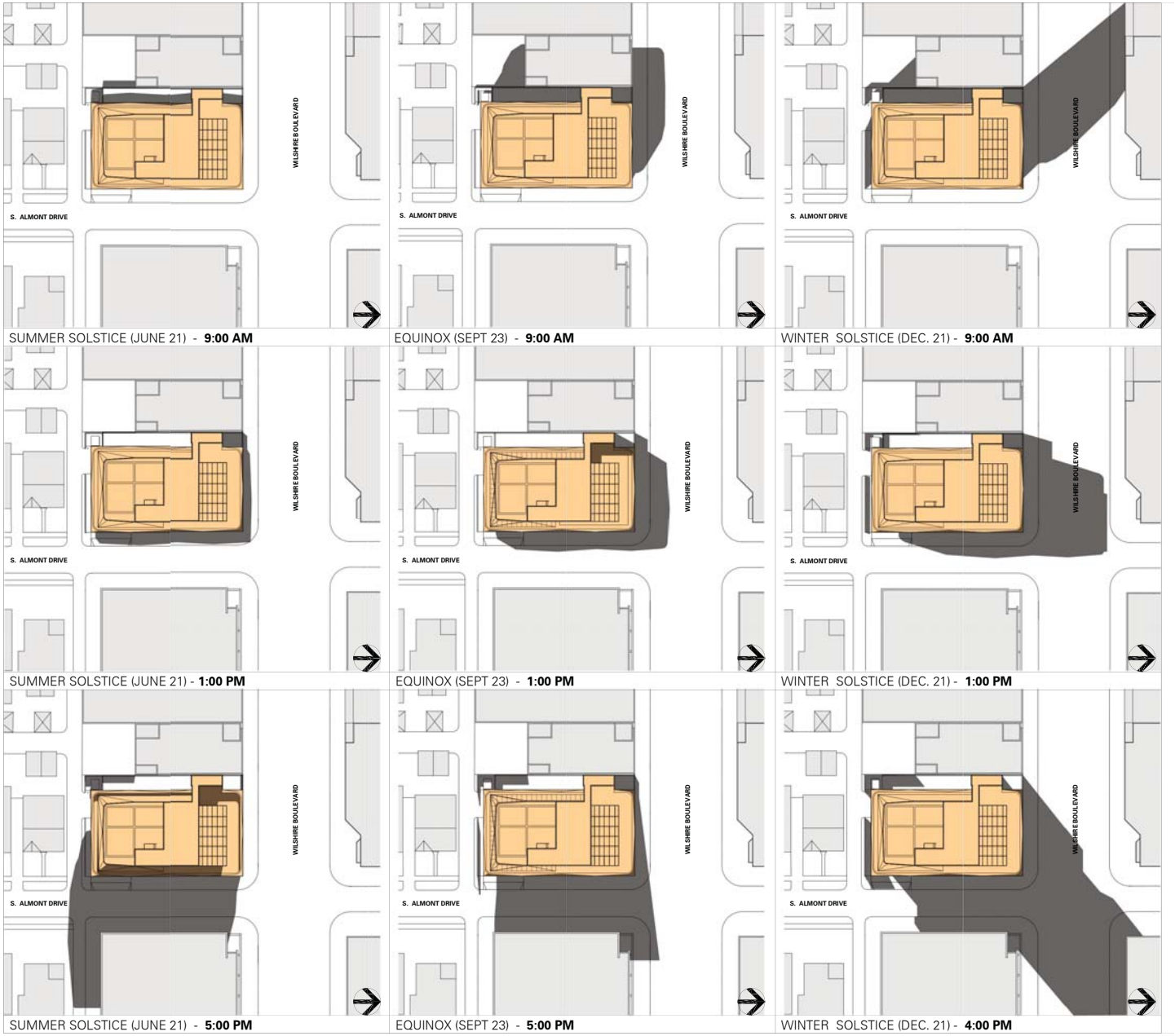
VIEW FROM WILSHIRE BLVD (NORTH ELEVATION)

*Source: NMDA, 2015*

Project Renderings

Figure 5

***City of Beverly Hills***




*Source: NMDA, 2015*

Project Shadow Effects

Figure 5

from vehicles. The nearest sensitive receptors are the residential buildings south of the site. As compared to the ambient lighting levels associated with existing urban development, the proposed project would not substantially alter lighting in the project site vicinity. The project vicinity is urbanized containing multiple sources of light including buildings, street lights, and vehicles. The project site would add nominal lighting to the urbanized surrounding from new building and would not result in an increase in ambient lighting levels. In addition, the project would be required to comply with adopted City regulations that limit the design, intensity and impacts of night lighting, including Beverly Hills Municipal Code (BHMC) Section 10-4-314, Lighting of Premises, which includes the following standards:

> A. *Any perimeter or flood lighting or other external lighting, whether used for illumination or advertisement, which illuminates private land, buildings, signs, or structures, whether built upon or not, shall be permitted only when such lighting is installed on private property and hooded or shielded so that no direct beams therefrom fall upon public streets, alleys, highways, or other private property. Such lighting shall be subject to architectural review pursuant to chapter 3, article 30 of this title. The reviewing authority shall consider the color, design, and placement of the lighting fixtures and the color, design and intensity of the lighting.*
>
> B. *Except as provided in subsection C of this section, any projected light display or exposed tube lighting element, such as neon, on the exterior of any building or structure that is not subject to regulation as a sign under article 6 of this chapter shall be subject to architectural review pursuant to the criteria set forth in section 10-3-3010 of this title, the architectural commission shall be the reviewing authority for purposes of such review.*

BHMC Section 5-6-1101, Excessive Lighting Prohibited, states that "[i]t shall be unlawful for any person, except governmental agencies, to install, use, or maintain any lighting which creates an intensity of light on residential property which is greater than one foot-candle above ambient light level; and provided further, all permissive lighting shall be arranged to focus on the property from which it originates, and shall not directly reflect upon any adjacent residential property."

Finally, pursuant to BHMC Section 10-3-3012.G, the Architectural Commission has authority to review and approve exterior lighting plans and signage for development. BHMC Section 10-3-3012 prescribes the contents of required plans and directs that they include "[a]n indication of the exterior lighting standards and devices adequate to review the possible hazards and disturbances to the public and adjacent properties." Therefore, with required compliance with the BHMC, the proposed project would have a less than significant impact with respect to increased lighting.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **II. <u>AGRICULTURE AND FOREST RESOURCES</u>** -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |

a-e) **No Impact.** Based on the Department of Conservation's Farmland Mapping and Monitoring Program and Williamson Act maps, neither the project site nor adjacent properties are identified as any farmland type or enrolled in Williamson Act contracts, or support forest land or resources (State of California Department of Conservation, 2012 and 2013). The project site is not located on or adjacent to agricultural land or forest land and the proposed project would not involve any development that could result in the conversion of farmland to non-agricultural uses. For these reasons, the project would have no impact with respect to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflicts with existing agricultural zoning or Williamson Act contract; the loss of forest land or conversion of forest land to non-forest use; or other conversion of farmland to non-agricultural use. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **III. AIR QUALITY** -- Would the Project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☒ | ☐ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☒ | ☐ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☒ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

a, b, c) **Less than Significant Impact**. The project site is within the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met, and, if they are not met, to develop strategies to meet the standards. The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards. For projects that could induce population growth, the potential population increase is compared to the Southern California Association of Governments' (SCAG) population projections to ensure that the growth is within the AQMP forecasts. However, as a commercial development, the proposed project would not increase the population and therefore, would not conflict with the AQMP forecasts. Refer to Section XIII, *Population and Housing*, for the population impacts associated with the proposed project.

Because the project site is located within the South Coast Air Basin and falls under the jurisdiction of the SCAQMD, this air quality analysis conforms to the methodologies recommended in SCAQMD's California Envrionmental Quality Act (CEQA) Air Quality Handbook (1993). The following significance thresholds have been recommended by the SCAQMD for project operations within the South Coast Air Basin:

- *55 pounds per day of Reactive Organic Gases (ROG)*
- *55 pounds per day of Nitrogen Oxides ($NO_X$)*
- *550 pounds per day of Carbon Monoxide (CO)*
- *150 pounds per day of Particulate Matter $(PM)_{10}$*
- *55 pounds per day of $PM_{2.5}$*

Construction-related air quality impacts are considered significant if emissions associated with construction activity would exceed adopted SCAQMD thresholds. Temporary construction emission thresholds have been recommended by the SCAQMD on a daily basis as follows:

- *75 pounds per day of ROG*
- *100 pounds per day of $NO_X$*
- *550 pounds per day of CO*
- *150 pounds per day of $PM_{10}$*
- *55 pounds per day of $PM_{2.5}$*

In addition to the regional air quality thresholds shown above, SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the SCAQMD's CEQA Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into account factors such as ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation, and are not applicable to mobile sources such as cars on a roadway (SCAQMD, 2003). LSTs have been developed for $NO_X$, CO, $PM_{10}$, and $PM_{2.5}$ and only apply to emissions on the project site. Since the majority of emissions from the proposed office would be generated by vehicle trips on roadways, LSTs for operational emissions would not apply to the proposed project's operational emissions. However, project construction would result in emissions from the project site. Therefore, LSTs were analyzed for project construction. Localized LSTs for the 0.36-acre project site were derived through a regression analysis based on the SCAQMD's LSTs for one- and two-acre project sites in SRA 2 for Northwest Coastal LA County.

<u>Operational Emissions</u>
Long-term operational emissions associated with the proposed project are those associated with vehicle trips (mobile emissions) and the use of natural gas, consumer products, and architectural coatings (area source emissions) upon buildout of the project. Air pollutant emissions associated with the proposed project (shown in Table 3) were quantified using the California Emissions

Estimator Model (CalEEMod), version 2013.2.2, based on the proposed use and the gross amount of proposed floor area.

**Table 3**
**Estimated Operational Emissions**

| | Emissions (lbs/day) | | | | |
|---|---|---|---|---|---|
| | **ROG** | **$NO_X$** | **CO** | **$PM_{10}$** | **$PM_{2.5}$** |
| Emissions from Proposed Office Building | **1.9** | **3.6** | **13.6** | **2.6** | **0.7** |
| ***SCAQMD Thresholds*** | *55* | *55* | *550* | *150* | *50* |
| *Exceed Thresholds?* | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

*Source: CalEEMod v. 2013.2.2*
*Note: Please see Appendix A for complete modeling results. For a conservative estimate of project emissions, construction and operational emissions were modeled and reported for the maximum day during the winter, since emission estimates are typically higher in the winter months compared to the summer months. Winter emission estimates are then compared to the SCAQMD thresholds measured in pounds-per-day. The annual emissions listed in the tables in Appendix A show the average annual emissions in terms of metric tons per year. These estimates are used for analysis of greenhouse gas emissions impacts, since the greenhouse gas emission thresholds are based on metric tons per year.*

As shown in Table 3, emissions generated by the proposed project would not exceed the SCAQMD's daily operational thresholds. Consequently, the project would not significantly affect regional air quality in the long term. The existing buildings on the project site create emissions and would be demolished as part of the proposed project. Because this analysis did not take into account the operational emissions from the existing buildings, the net increase in emissions would be even lower than what is shown in Table 3. Vehicle trips associated with the proposed project were analyzed under operational emissions. The proposed project would generate 484 vehicle trips a week and 907,071 vehicle trips a year, which was calculated from the proposed daily traffic volumes in the *Traffic Impact Study for 9000 Wilshire Boulevard Office Building* prepared by KOA in December 2015.

Construction Emissions

Development of the proposed project would involve demolition and removal of existing buildings, site grading, excavation, and other construction-related activities that have the potential to generate substantial air pollutant emissions. Temporary construction emissions from these activities were estimated using CalEEMod, based on the proposed use through the number of proposed parking spaces and the gross amount of proposed floor area.

Table 4 shows the maximum daily construction emissions, assuming the use of architectural coatings that have low ROG emissions on all interior and exterior surfaces per SCAQMD's Rule 1113. Additionally, the CalEEMod analysis assumed watering of exposed areas three times per day for compliance with SCAQMD's Rule 403. Emissions from construction activities would not exceed SCAQMD daily significance thresholds. Therefore, construction activities would not result in significant construction-related air quality impacts.

Conclusion

The proposed project would not generate significant air quality impacts. Additionally, as discussed in Section XVI, *Traffic/Transportation*, this project would not result in significant increases in traffic at intersections. Thus, the project would not require analysis for CO hotspots, based on the recommendations contained in Caltrans' Transportation Project CO Protocol Manual. Project emissions would be below the SCAQMD's thresholds for construction and operational emissions and the project would be consistent with SCAQMD's AQMP.

**Table 4**
**Estimated Construction Emissions**

| | Emissions (lbs/day) | | | | |
|---|---|---|---|---|---|
| | **ROG** | **$NO_X$** | **CO** | **$PM_{10}$** | **$PM_{2.5}$** |
| Maximum Daily Construction Emissions | 11.8 | 20.4 | 17.3 | 1.9 | 1.4 |
| *SCAQMD Threshold* | *75* | *100* | *550* | *150* | *55* |
| ***Exceed SCAQMD Threshold?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |
| *Localized Significance Thresholds*[1] | *N/A* | *82* | *432* | *3* | *2* |
| ***Exceed LST?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

*Source: CalEEMod v. 2013.2.2*
*[1] Allowable emissions (lbs/day) as a function of receptor distance (25 meters) from site boundary, as derived from a regression analysis on the LSTs for one- and two-acre sites in Source Receptor Area 2: Northwest Coastal LA County. Source: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds*
*Note: Please see Appendix A for complete modeling results. For a conservative estimate of project emissions, construction and operational emissions were modeled and reported for the maximum day during the winter, since emission estimates are typically higher in the winter months compared to the summer months. Winter emission estimates are then compared to the SCAQMD thresholds measured in pounds-per-day.*

d) **Less than Significant Impact.** Certain population groups, such as children, the elderly, and people with health problems, are considered particularly sensitive to air pollution. Sensitive receptors include land uses that are more likely to be used by these population groups, such as health care facilities, retirement homes, school and playground facilities, and residential areas.

The proposed project would have a significant impact if it would expose sensitive receptors to substantial levels of toxic air contaminants (TAC). TAC emissions are mostly associated with industrial sources as well as with diesel exhaust. Operation of the proposed project involves commercial offices and would not emit substantial levels of TACs. The proposed project may involve heavy truck use associated with deliveries and trash hauling. However, the two existing buildings on the project site are retail and commercial buildings that currently consist of an antique shop, café, vape shop/lounge, and a vacant commercial space, which already utilize heavy trucks for deliveries and trash hauling. The activities associated with the proposed project would be similar to the uses existing on the project site and would not result in substantial operational TAC emissions.

The proposed project would involve demolition of the two existing buildings on the project site during construction. The developer would be required, before obtaining a demolition permit, to have the buildings evaluated for asbestos and lead paint, both considered a TAC. If the buildings are found to contain such materials, an asbestos abatement permit shall be obtained from the City of Beverly Hills Department of Building and Safety as required by Rule 1403 of the SCAQMD. Demolition permits may then be issued upon submittal of an asbestos abatement completion certificate by qualified contractors as required by BHMC 9-1-104 Section 102.9. Lead-based materials exposure is regulated by California Occupational Safety and Health Administration (CalOSHA) regulations. California Code of Regulations, §1532.1, requires testing, monitoring, containment, and disposal of lead-based materials such that exposure levels do not exceed CalOSHA standards. Compliance with the above regulations would reduce impacts of asbestos and lead paint to sensitive receptors to less than significant levels.
As discussed under subparts a, b, c of this section, operational and construction emissions are anticipated to be well under the current SCAQMD emissions thresholds. Therefore, impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

e) **Less than Significant Impact.** Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The proposed project involves a new 31,702 square-foot building with three stories of commercial office uses and four levels of subterranean parking. Construction activities associated with the development of the building and subterranean parking could result in odorous emissions from diesel exhaust generated by construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project construction. The proposed commercial office uses would not generate objectionable odors that would affect a substantial number of people. The proposed project would comply with SCAQMD Rule 1113, which requires the use of low-VOC paint (150 g/L for nonflat coatings). Additionally, odors would be similar to existing residential uses to the south and retail and commercial uses to the north, west, and east of the project site. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **IV. <u>BIOLOGICAL RESOURCES</u>** -- 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? | ☐ | ☐ | ☒ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **IV. BIOLOGICAL RESOURCES** -- Would the Project: | | | | |
| plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | | |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☒ | ☐ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☒ | ☐ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☒ | ☐ |

a, d) **Less than Significant Impact**. Under the provisions of the Migratory Bird Treaty Act (MBTA), it is unlawful "by any means or manner to pursue, hunt, take, capture (or) kill" any migratory birds except as permitted by regulations issued by the U.S. Fish and Wildlife Service (USFWS). The term "take" is defined by USFWS regulation to mean to "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest or egg of any migratory bird covered by the conventions, or to attempt those activities. Migratory birds include all native birds in the United States, except those non-migratory species such as quail and turkey that are managed by individual states.

There are six ornamental street trees along S. Almont Drive and several hedges and one ornamental tree, a Chinese elm, exist along the southern boundary of the project site adjacent to an unnamed alleyway. In addition, there are several palm trees in the public right-of-way on Wilshire Boulevard. Except for the Chinese elm that would be removed to accommodate the driveway, all other street trees would not be removed as part of the proposed project. Although unlikely in an urban area, there is potential for migratory bird species that nest on the ground as well as within the shrubs along the north and eastern perimeter of the site. Species with potential to occur at the project site include house finch, California towhee, common yellowthroat, bushtit and mourning dove. There is potential for these and other migratory

species to be present during the nesting season at the project site. These species are protected by the MBTA during the nesting season, which extends from February 1 to August 15, as defined by the (CDFG. The proposed project would adhere to the proposed *Biological Resources Condition 1: Nesting Bird and Raptor Survey* measure mentioned above in the *Description of Project*. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

b, c, e, f) **Less than Significant Impact.** The project site is in an urbanized area, has been previously graded, and is surrounded by pavement and urban structures (office buildings, residential buildings, and commercial buildings). The area is highly urbanized and the only potential for adverse effects to wildlife is discussed above relative to nesting birds. There is no potential for adverse effects to protected habitat or wetlands either directly or indirectly. No threatened, endangered or rare species or their habitats; locally designated species; locally designated natural communities; wetland habitats; or wildlife corridors are known to exist on the site. The site is also not within the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Under the proposed project, one Chinese elm street tree could be removed from S. Almont Drive near the southeast corner of the site, to clear space for the proposed curb cut. Chinese elm trees are ornamental and are not considered rare or endangered species, the removal of the tree would not conflict with local policies or ordinances regarding tree preservation. Therefore, impacts would be less than significant and further analysis of these issues in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **V. <u>CULTURAL RESOURCES</u>** -- Would the Project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☒ | ☐ | ☐ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☒ | ☐ | ☐ |

California Assembly Bill 52 (AB 52)
As of July 1, 2015, California AB 52 was enacted and expands CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and that are either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. All AB 52 consultation was carried out by the City of Beverly Hills. The City received a letter from the Gabrieleno Band of Mission Indians – Kizh Nation, also known as The San Gabriel Band of Mission Indians. The letter is dated July 6, 2016 and is requesting that a certified Native American Monitor be on-site during any and all ground disturbances. This request will be addressed in the EIR. .

a) **Potentially Significant Impact.** On January 24, 2012, the City Council adopted Ordinance 12-0-2617 to establish a Historic Preservation Program. The Historic Preservation Program:

- *Creates a Cultural Heritage Commission, made up of five citizens that will meet and make recommendations to the City Council on designation of historic properties and applications to the Mills Act program as well as other preservation issues.*
- *Establishes criteria by which property can be designated as a landmark and be listed on the City of Beverly Hills Local Register of Historic Places. Criteria include age of the landmark, architectural significance, association with historic events or people and integrity from its period.*
- *Creates incentive programs, such as the Mills Act, to encourage homeowners to preserve and restore architecturally significant residences.*
- *Establishes penalties for demolishing historically significant buildings.*

Rincon Consultants, Inc. (Rincon) conducted a cultural resources assessment for the project which included a records search at the South Central Coastal Information Center, a survey of the project area, archival research, a historic evaluation and preparation of a historic assessment report. The July 2016 *Historic Assessment of 9006 Wilshire Boulevard* prepared by Rincon documents the historic resources on the project site. This report will be included as an appendix in an EIR for the proposed project.

On November 11, 2015 Rincon Senior Architectural Historian Shannon Carmack conducted an intensive-level cultural resources survey of the project site. The purpose of this survey was to identify and photograph any built environment resources that may be affected by the proposed project. The field survey consisted of a visual inspection of the project site and its associated features to assess the existing building's overall condition and integrity, and to identify and document any potential character-defining features. The field survey identified one building, located at 9006 Wilshire Boulevard that was constructed over 45 years ago and required historic evaluation. The building located at 9000 Wilshire Boulevard was constructed in 1977, and is not old enough to warrant consideration as a historical resource.

Archival research was completed in November and December 2015. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the property. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. The following repositories, publications, and individuals were contacted to identify known historical land uses and the locations of research materials pertinent to the project site:

- *City of Beverly Hills Building Permits*
- *City of Beverly Hills Public Library, Historical Collection*
- *County of Los Angeles Assessor*
- *Gail Stein, Archivist, City of Beverly Hills Public Library, Historical Collection*
- *Historic aerial photographs*
- *Sanborn Fire Insurance Company Maps*
- *Los Angeles Public Library*
- *Los Angeles Times archives*
- *Beverly Hills Citizen archives*
- *Other sources as noted in the references list*

The 9006 Wilshire Boulevard building on the project site reflects a Mediterranean Revival style in its use of materials, design, and composition. The Mediterranean Revival style was an eclectic design style that became popular during the 1920s and 1930s. The building is rectangular in plan and has a high-pitched, side-gabled roof that is clad with barrel tile. The walls are constructed of unreinforced masonry and sheathed in smooth plaster. The north-facing symmetrical façade is divided into three bays separated by pilasters with recessed panels and floral relief. Above the pilasters, across the facade, the architrave contains floral relief and medallions. The frieze is plain, topped by a course of dentils and the cornice.

The eastern bay has a pair of large fixed storefront windows. Above them is a contemporary business sign. The entry consists of a recessed, single, steel and glass commercial door with a transom window above. Immediately adjacent to this is a second single, steel and glass commercial entry door. This second entry is also recessed but is set at approximately a 45-degree angle to the sidewalk. There is an air conditioning unit installed above the transom. Next to this entry is another large storefront window, above which a contemporary sign frame runs across the central bay. The third and westernmost bay contains a large storefront window, a single steel and recessed glass entry door with a transom window, and an awning above them. An iron lantern hangs on each of the two pilasters that comprise the westernmost bay. The framing for a metal folding security gate has also been installed between the two pilasters of the westernmost bay. To the rear of the building is a larger, flat-roofed section with parapet. The rear elevation contains multiple segmental-arched windows with brick sills that are covered by security bars, as well as three solid entry doors. A parking lot is at the rear of the property.

The project site was constructed in 1925 by property owner E.C. Eoekel. The architect/ builder is listed as A.J. Roe. No information was found on the original property owner. Archie J. Roe was a building contractor who constructed both residential and commercial structures. He was born in New York in approximately 1881 and was extensively engaged in building houses in south and southeastern Syracuse, NY in the early 1900s. A.J. Roe was working as a building

contractor in Los Angeles by 1920, if not earlier. Roe is also noted as the builder of a pair of single-family residences located just south of the subject property at 120 and 129 South Almont Drive, both constructed in 1923. The building located at 120 South Almont Drive is no longer extant.

City directory and building permit research provided information on the 9006 Wilshire Boulevard building's commercial occupants over the years. City Directories do not list the property address from 1925 to 1927, suggesting the building may have been unoccupied. The earliest known tenants included Superior French Dry Cleaners, Dryers and Tailors, which occupied the eastern two-thirds of the building from 1928 until 1943. Al Gollack is noted as the manager/owner for most of that time period. During the 1930s and 1940s, the remaining building space was occupied by various tenants, including a radio store, pharmacy, rug store, offices and a photo studio. By 1950, the building had converted to office spaces, in keeping with the broader trend occurring along Wilshire Boulevard away from commuter amenities towards professional and institutional uses. Tenants included accountants and lawyers. Since the 1950s, the building has held numerous different tenants, including retail shops, restaurants and offices. The building is currently occupied by a smoking shop and a restaurant. Research into all the known tenants and owners of the subject property found no evidence of any of them being significant individuals in the history of Beverly Hills.

**Historical Evaluation**

The results of Rincon's analysis (2016) found that the project site appears eligible for listing in the National Register of Historic Places and the California Register of Historical Resources under Criteria A/1 for its association with the early commercial development of Wilshire Boulevard and Criteria C/3 as a rare remaining example of Mediterranean Revival commercial architecture along the Wilshire corridor within Beverly Hills.

Rincon's windshield survey and subsequent parcel research of construction dates of other commercial properties along Wilshire Boulevard revealed that the subject property, Historic Dry Cleaner, is the earliest intact commercial building along Wilshire Boulevard in Beverly Hills. The building reflects the earliest period of development along one of the most important thoroughfares of southern California. In addition, it is one of the few remaining examples of Revival-style architecture outside of Beverly Hills' focused triangle of commercial development.

The project site does not appear to satisfy the fourth criterion of the City of Beverly Hill's criteria for designation as a local Landmark, as required in the City's Historic Preservation Ordinance (BHMC Section 10-3-3212). The project site is considered a historical resource for the purposes of CEQA. Potential impacts to the historic structure will be further analyzed in an EIR.

b-d) **Potentially Significant Unless Mitigation Incorporated.**

Rincon completed a California Historical Resources Information System (CHRIS) records search on April 11, 2016 at the South Central Coast Information Center (SCCIC) located at the California State University, Fullerton. The search was conducted to identify previously conducted cultural resource studies as well as previously recorded cultural resources within a 0.25-mile radius of the site. The search also included a review of the State Historic Property Data Files, National Register of Historic Places, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys. These inventories yielded no property evaluations

within the search area. The records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps.

The records search did not identify any previously recorded archaeological sites within a 0.25-mile radius. The project site is within a highly urbanized area. The surface of the project site is paved and contains buildings; no archaeological resources are known to have been previously discovered on the site. As a result, the likelihood of encountering undisturbed cultural resources or human remains is low. In the unlikely event that such resources are unearthed during construction, applicable regulatory requirements pertaining to the handling and treatment of such resources would be followed. Potential impacts will be discussed in the EIR.

The project is located on the central block of the Los Angeles Basin, where Cretaceous to Holocene-aged sedimentary rocks overlie crystalline basement rocks. At the project site, Pleistocene-aged sediments directly underlie Holocene-aged surface deposits at unknown depths. Pleistocene-aged deposits from the Los Angeles Basin and throughout southern California are known to contain scientifically significant paleontological resources. Important localities, such as the famous tar pits located approximately two miles from the project site, have produced a diverse and abundant vertebrate record. As such, Pleistocene deposits at the project site are considered to have high paleontological sensitivity. Ground disturbing activity from project development has the potential to impact significant paleontological resources, and the destruction and loss of fossils would be considered significant under CEQA. Potential impacts to paleontological resources will be further analyzed in an EIR.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **VI. <u>GEOLOGY and SOILS</u> –** 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? | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☒ | ☐ |
| iv) Landslides? | ☐ | ☐ | ☒ | ☐ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **VI. GEOLOGY and SOILS –** Would the Project: | | | | |
| c) Be located on a geologic unit or soil that is unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property? | ☐ | ☐ | ☒ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☐ | ☒ |

a. i.) **No Impact.** The project site is not located within an area that has been identified as having a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (State of California Department of Conservation, 2016a). No known fault lines cut through the site. As a result, the project site would not be subject to ground rupture from a known earthquake fault. No impact would occur and further analysis of this issue in an EIR is not warranted.

a. ii.) **Less than Significant Impact.** As discussed above, no known faults cross the project site and the project site is not located in an Alquist-Priolo Earthquake Fault Zone. Nonetheless, due to the presence of faults within the City, the proposed project may be subject to moderate to strong ground shaking in the event of an earthquake originating along one of the local or regional faults designated as active or potentially active within the vicinity of the project site (Geotechnolgies, Inc., 2012). This hazard is common throughout California and the proposed project would pose no greater risk than is already present for the region to public safety or destruction of property by exposing people, property, or infrastructure to seismically associated hazards. Development in the City of Beverly Hills is required to adhere to the Uniform Building Code (UBC) and California Building Code (CBC). The CBC and UBC regulate the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking. The impact to people, buildings, or structures on the project site from strong seismic ground shaking would be reduced by the required conformance with applicable building codes, and accepted engineering practices. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

a. iii.) **Less than Significant Impact.** Liquefaction is a condition that occurs when unconsolidated, saturated soils change to a near-liquid state during ground shaking. The project site is located within a seismically active region and is subject to ground shaking from an earthquake event along major active local and regional faults. In certain areas, liquefaction can be a secondary effect of strong ground shaking. Liquefaction occurs primarily in saturated, loose, fine- to medium-grained sands, and most commonly occurs in areas where the groundwater table is less than 10 to 30 feet below the ground surface, although analysis is typically performed to a depth of 50 feet. When these sediments are shaken, a sudden increase in pore water pressure causes the soils to lose strength and behave as a liquid. Liquefaction-related effects can include loss of bearing strength, ground oscillations, lateral spreading and flow failures.

Geotechnologies, Inc. prepared a site-specific liquefaction analysis for the project site following the Recommended Procedures for Implementation of the California Geologic Survey Special Publication 117A, Guidelines for Analyzing and Mitigation Seismic Hazards in California (Geotechnologies, Inc., 2012). This analysis is included as Appendix B. Groundwater was encountered at a depth of 35 feet below the ground surface. The historic-high groundwater level for the project site was 25 feet below the ground surface, and the highest historic groundwater level was conservatively utilized for the liquefaction analysis. The results of the analysis confirmed that the layers tested consisted of cohesive, clayey soil materials, which may be considered non-liquefiable. The soils underlying the site would therefore not be susceptible to liquefaction during design level earthquake, refer to Appendix B. Any water extracted from the site would comply with applicable regulations including Section 9-4-610 of the BHMC which requires a permit for dewatering. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

a. iv.) **Less than Significant Impact.** The topography on the project site ranges from 174.87 feet at the northwest corner to 170.44 feet at the southeast corner. The general lack of elevation difference on the project site, the relatively flat surroundings, and the fact that the project site is not located within the landslide hazard zone on the City of Beverly Hills Seismic Hazards Map, result in no potential for significant landslides (Beverly Hills, 2005; Geotechnologies, Inc. 2012). Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

b) **Less than Significant Impact.** The project site is generally level, which limits the potential for substantial soil erosion. The grading and excavation phase when soils are exposed has the highest potential for erosion. Construction activity associated with site development may result in the erosion of soils from wind and water. However, the use of standard construction Best Management Practices (BMPs) on the construction site, as required by BHMC Section 9-4-507, would reduce any potentially significant soil erosion impacts. Such BMPs include use of plastic coverings on unprotected areas to eliminate erosion; removal of any sediments tracked offsite by construction vehicles; and use of temporary sediment barriers where necessary. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

c) **Less than Significant Impact.** As discussed under items a(i) through a(iv), the project site does not have any conditions that pose unusual risks relating to soils or other potential secondary seismic hazards. Subsidence can occur as a result of excessive groundwater or petroleum withdrawals which cause the ground surface to sink. Subsidence often occurs in

alluvial valleys filled to great depth with alluvial fan and lake-deposited sediments. Subsidence produces cracks in pavements and buildings and may dislocate wells, pipelines, and water drains. Beverly Hills has experienced limited subsidence over the years (Beverly Hills, 2005). However, development in Beverly Hills is required to adhere to the UBC and CBC. The CBC and UBC regulate the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of adverse soil conditions. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

d) **Less than Significant Impact.** Expansive soils are primarily comprised of clays, which increase in volume when water is absorbed and shrink when dry. Expansive soils are of concern since building foundations may rise during the rainy season and fall during dry periods in response to the clay's action. If movement varies under different parts of the building, structural portions of the building may distort. Clay soils beneath the City of Beverly Hills have the potential to expand (Beverly Hills, 2005). The earth materials on the project site are in the very low to moderate expansion range. The Expansion Index was found to be between 0 and 50 for representative bulk samples, taken by Geotechnologies, Inc. on December 12, 2011.

The proposed project would adhere to the proposed *Geological Condition 1: Foundation Design* and *Geological Condition 2: Concrete Slabs-on Grade* measures mentioned above in the Description of Project. *Geological Condition 1* would require foundation design to resist hydrostatic and uplift pressures preventing building damage from expanding soils. *Geological Condition 2* would require slabs-on-grade to be cast over all undisturbed native soils to control the extent of excavation. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

e) **No Impact.** Development on the project site would be served by the City's wastewater disposal system. The project does not include a septic system; therefore, there is no potential for adverse effects due to soil incompatibility. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **VII. <u>GREENHOUSE GAS EMISSIONS</u> -** Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

**Greenhouse Gas Emissions (GHG) Fundamentals**

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$) are the GHGs that are emitted in the greatest quantities from human activities. Emissions of $CO_2$ are largely by-products of fossil fuel combustion. $CH_4$ results from fossil fuel combustion as well as off-gassing associated with agricultural practices and landfills. $N_2O$ is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes.
2009

Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. According to the CalEPA's 2010 Climate Action Team Biennial Report, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, April 2010).

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 16 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires the California Air Resources Board (ARB) to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, ARB approved a 1990 statewide GHG level and 2020 limit of 427 million metric tons (MMT) of $CO_2$ equivalent ($CO_2e$). The Scoping Plan was approved by ARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and ARB is currently in the process of updating the Scoping Plan.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (ARB, 2014).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

a, b) **Less than Significant Impact.** GHG emissions associated with the proposed project were estimated using CalEEMod. Emissions of the existing land uses on the project site were not calculated, and $CO_2e$ results presented below are a conservative estimate. The analysis focuses on $CO_2$, $N_2O$, and $CH_4$ because these are the GHG emissions that onsite development would generate in the largest quantities. Emissions of fluorinated gases, such as HFCs, PFCs, and $SF_6$ would not be significant since fluorinated gases are primarily associated with industrial processes. Complete CalEEMod results and assumptions can be viewed in Appendix A.

Construction Emissions

Based on the CalEEMod results, construction activity for the project would generate an estimated 302.8 metric tons $CO_2e$ (as shown in Table 5) during construction. Construction $CO_2e$ emission would occur over the eighteen month construction period of the proposed project, beginning in 2017.

**Table 5**
**Estimated Construction Emissions of Greenhouse Gases**

| | **Construction Emissions ($CO_2e$)** |
|---|---|
| **Total Emissions** | 237 metric tons |

*Source: CalEEMod, 2013.2.2. See Appendix A for GHG emission worksheets and assumptions.*

Operational Indirect, Stationary Direct, and Mobile Emissions

Long-term emissions relate to area sources, energy use, solid waste, water use, and transportation. Each of these sources is discussed below.

*Area Source Emissions*

Area emissions include consumer product use, the reapplication of architectural coatings, and landscape maintenance equipment. As shown in Table 6, area emissions are estimated at less than one metric ton $CO_2e$ per year.

*Energy Use*

Operation of the proposed project would consume both electricity and natural gas. Project operation would consume an estimated 309,755 kilowatt-hours [kWh] of electricity and 159,147 kBTU of natural gas per year (refer to Appendix A). The generation of electricity used by the project would occur at offsite power plants, much of which would be generated by the combustion of fossil fuels that yields $CO_2$, and to a smaller extent $N_2O$ and $CH_4$. As discussed above, annual electricity and natural gas emissions was calculated using CalEEMod, which has developed emission factors based on the mix of fossil-fueled generation plants, hydroelectric power generation, nuclear power generation, and alternative energy sources associated with the regional grid. Electricity consumption associated with the project would generate

approximately 89 metric tons $CO_2e$ per year. Natural gas use would generate approximately 9 metric tons $CO_2e$ per year. Thus, overall energy use from the proposed project would generate an estimated 98 metric tons $CO_2e$ per year.

*Solid Waste*
The CalEEMod output for GHG emissions from solid waste relies on current waste disposal rates provided by CalRecycle. Solid waste associated with the project would generate an estimated 14 metric tons of $CO_2e$ per year.

*Water Use*
Based on the amount of electricity generated in order to supply and convey water for the proposed project, the project would generate an estimated 42 metric tons of $CO_2e$ per year.

*Transportation*
Mobile source GHG emissions were estimated using the average daily trips for the proposed project based on the Institute of Transportation Engineers' (ITE) trip rates for general office uses (see Section XVI, *Transportation/Traffic*). The GHG emissions calculations were also based on the total vehicle miles traveled (VMT) estimated in CalEEMod. These calculations indicate that the proposed project would generate approximately 841,216 annual VMT, which would result in an estimated 350 metric tons of $CO_2e$ per year from mobile sources.

*Combined Construction, Stationary and Mobile Source Emissions*
Table 6 below combines the construction, operational, and mobile GHG emissions associated with development of the proposed project. For the proposed project, the combined annual net emissions are estimated at 769 metric tons $CO_2e$ per year. This analysis did not take into account the operational $CO_2e$ emissions from the buildings currently existing on the project site because the emissions associated with operation of the proposed project are estimated far under SCAQMD thresholds for GHG emissions. Thus, GHG emissions associated with the proposed project are a conservative estimate and would not exceed the SCAQMD 3,000 metric tons $CO_2e$ per year threshold of significance, and impacts on climate change from GHG emissions would be less than significant.

**Table 6**
**Combined Annual Emissions of Greenhouse Gases**

| Emission Source | Annual Emissions (Metric Tons $CO_2e$) |
|---|---|
| **Proposed Project** | |
| Project Construction | 237 |
| Project Operational<br>*Area*<br>*Energy*<br>*Solid Waste*<br>*Water* | <br><0.1<br>98<br>14<br>42 |
| Project Mobile | 378 |
| ***Total Emissions From Proposed Project*** | ***769*** |

*Source: Tables 2.1, 2.2 and 4.2 in CalEEMod annual worksheets, see Appendix A for calculations and for GHG emission factor assumptions.*

Existing Plans and Policies

The City has adopted a Sustainable City Plan (SCP) for the purposed of reducing GHG emissions, and SCAG's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) is a long-range plan that balances future mobility and housing needs with economic, environmental and public health goals. Consistency with these plans would assist in reducing local GHG emissions and result in less than significant impacts.

The proposed project is consistent with the City's SCP, including Goal 3 Energy that states: "Encourage the use of energy in a clean and efficient manner and the use of renewable energy sources." The proposed project would be LEED Gold certified or better by implementing energy saving strategies such as solar panels. The proposed project is also consistent with Goal 4 Water to "reduce water use while maintaining a garden-like quality in the City" (Bevery Hills, 2009). The proposed project would implement water-saving technologies, landscape with drought tolerent plants, and use vegetation around the building to develop privacy on the rooftop and to meet the City's water saving landscaping requirements.

In addition, the project is consistent with the SCAG's RTP/SCS (SCAG, 2012). One of the components for overall land use patterns in the RTP/SCS is to identify regional strategic areas for infill develpoment. The project would result in infill within the City of Beverly Hills, which would be consistent with the RTP/SCS.

Conclusion

The proposed project would not generate GHG emissions that would result in a significant impact. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **VIII. <u>HAZARDS and HAZARDOUS MATERIALS</u> -** Would the Project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☒ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area? | ☐ | ☐ | ☒ | ☐ |
| f) For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area? | ☐ | ☐ | ☒ | ☐ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☒ |

a, b) **Less than Significant Impact.** The proposed project would involve the construction of a new 31,702 square-foot building with three stories of commercial office uses and four levels of subterranean parking on a site currently developed with one-story and two-story commercial buildings and a surface parking lot.

Construction

Applied Environmental Technologies, Inc. (ATE) prepared the Phase I Environmental Site Assessment (ESA) for the proposed project in May 2011. Based on this assessment, there is low probability that the properties listed on the government database Report C within 1 mile of the project site would have any impacts to the project site (ATE, 2011). The project site has not been previously contaminated and therefore any construction onsite would not expose the public to a significant hazard.

The proposed project would involve demolition of the two buildings existing on the project site. The age of the existing Historic Dry Cleaner on the project site indicates that there is the potential for asbestos and or lead. The developer would be required, before obtaining a demolition permit, to have the buildings evaluated for asbestos and lead paint. If the buildings are found to contain such materials, an asbestos abatement permit shall be obtained from the City of Beverly Hills Department of Building and Safety as required by Rule 1403 of the SCAQMD. Demolition permits may then be issued upon submittal of an asbestos abatement completion certificate by qualified contractors as required by BHMC 9-1-104 Section 102.9. Lead-based materials exposure is regulated by CalOSHA regulations. The California Code of Regulations, §1532.1, requires testing, monitoring, containment, and disposal of lead-based materials such that exposure levels do not exceed CalOSHA standards. The Historic Dry Cleaner located on the project site was present from 1934 through 1951 and is not considered a recognized environmental condition (AET, 2011). Compliance with the above regulations relating to asbestos and lead would reduce impacts to less than significant levels.

Operation

Operation of the proposed office building and associated subterranean parking would not involve the transport, use and disposal of hazardous materials. The proposed office use would be anticipated to have minor quantities of cleaning supplies, and printer toner in storage. Landscape maintenance supplies such as minor quantities of fuel, herbicides, and pesticides would also be stored. The County of Los Angeles Department of Environmental Health, the City of Beverly Hills Fire Department (BHFD) and the State of California Occupational Safety and Health Administration regulate the use, storage, and handling of hazardous materials. The Beverly Hills Fire Department's Fire Prevention Bureau is responsible for the enforcement of all local, state, and federal codes related to the safe occupancy of buildings. This includes the safeguarding of life and property from the hazards of fire and explosion arising from the storage, handling, and use of hazardous substances, materials, and devices as well as hazardous conditions due to the use or occupancy of buildings (Beverly Hills, 2016a). CalOSHA protects workers and the public from safety hazards through its Occupational Safety and Health program and provides consultative assistance to employers (CalOSHA, 2016). Use of any hazardous material associated with operation of the project site would be regulated by the departments listed above. These departments are also available to respond to a spill of hazardous materials, if necessary.

Conclusion
Local, state, and federal regulations and standards are in place to regulate the transportation, use, and disposal of hazardous materials. In addition, there are several local departments and agencies that are able to respond to foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

c) **Less Than Significant Impact.** The school nearest to the project site is Horace Mann School (5th through 8th grade), located approximately 0.23 miles southeast of the project site. Harkham Hill Hebrew Academy is located approximately 0.55 miles south of the project site. Any hazardous materials emitted by or involved with the proposed office project would be regulated by local, state, and federal standards from OSHA, the State of California Occupational Safety and Health Administration, and the BHFD. Therefore, the project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of a school. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

d) **Less than Significant Impact.** The Phase I ESA revealed that the project site was identified on agency lists as a historical dry cleaner that was in operation from 1934 to 1951; however, the site is not considered a recognized environmental condition and is not identified in the Environmental Database Resources (EDR) based on this historical use. The 58 EDR identified within one mile of the project site have a low probability to affect the site. Three Leaking Underground Storage Tanks (LUSTs) were found within 1 mile of the project site. However, all LUSTs are "case closed," requiring no further assessment or cleanup. Therefore, they do not pose an environmental issue.

A review of the Munger Map Book of California – Alaska Oil and Gas Fields was performed and the project site is located within the southern edge of the San Vicente Oil Field (Munger, 2003). Two abandoned wells were less than 0.25 miles of the project site. However, after review of the project site during a reconnaissance survey revealed that the site has not been affected by oil and gas production and there is no environmental issue from the two abandoned wells.

ATE personnel observed the project site on February 15, 2011 and no above ground or below ground tanks, pits, ponds, significantly stained soil or asphalt/concrete, or stressed vegetation was observed. At the rear of 9010 Wilshire Boulevard are drums of used oil and grease that are picked up when full. There was no staining observed in the asphalt or concrete at the time of the reconnaissance. Therefore, evidence of recognized hazardous environmental conditions at the site were not identified (ATE, 2011). Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

e, f) **Less than Significant Impact.** The project site is located approximately five miles northeast of the Santa Monica Municipal Airport. The project site is not within an area covered by an airport land use plan, nor is it located in the vicinity of a private air strip. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

g) **No Impact.** The developer would be required to comply with all applicable City codes and regulations pertaining to emergency response and evacuation plans maintained by the police and fire departments in the City of Beverly Hills. BHMC Ordinance 07-O-2521 is designed for preparation and execution of plans during the event of an emergency. The ordinance also provides for the coordination of the emergency services within the City with other public agencies and organizations. Specifically, Section 2-4-109 which requires the development of a Beverly Hills emergency plan that will be followed by the City in the event of an emergency. In addition, construction activities associated with the project do not include permanent or temporary street closures or changes in traffic flow. No impacts would occur and further analysis of this issue in an EIR is not warranted.

h) **No Impact.** The project site and surrounding areas are entirely urbanized. Flammable brush, grass, or dense trees do not exist on the project site. Prior to final plan approvals, the City would require the developer to comply with all applicable codes, regulations, and standard conditions of approval for fire protection. The developer would be required to provide proof of compliance with all applicable building and fire code requirements. These requirements include, but are not limited to, types of roofing materials, building construction, fire hydrant flows, hydrant spacing, access and design, fire sprinkler systems, and other hazard reduction programs as set forth by the BHFD and the Uniform Fire Code. Therefore, significant impacts to people or structures as the result of wildland fires would not occur. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **IX. HYDROLOGY and WATER QUALITY** – Would the Project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☒ | ☐ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **IX. HYDROLOGY and WATER QUALITY** – Would the Project: | | | | |
| amount of surface runoff in a manner which would result in flooding on- or off-site? | | | | |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☒ | ☐ |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☒ | ☐ |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☒ | ☐ |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☒ | ☐ |
| j) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☒ | ☐ |

a, e, f) **Less than Significant Impact.** The proposed project would be required to comply with the City's dewatering and urban runoff and storm water regulations. Additionally, as part of Section 402 of the Clean Water Act (CWA), the U.S. Environmental Protection Agency has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control both construction and operation (occupancy) storm water discharges. In California, the State Water Quality Control Board administers the NPDES permitting program and is responsible for developing permitting requirements. The project would be required to comply with the NPDES permitting system. Under the conditions of the permit, the project applicant would be required to eliminate or reduce non storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project construction activities, and perform inspections of the SWPPP measures and control practices to ensure conformance. The SWPPP identifies BMPs that control surface runoff, erosion, and sedimentation. The developer would be required to control pollutant discharge by utilizing BMPs such as the Best Available Technology Economically Achievable (BAT) and the Best Conventional Pollutant Control Technology (BCT) in order to avoid discharging pollutants into waterways. BMPs would be required during general operation of the project to ensure that storm water runoff meets the established water quality standards and waste discharge requirements.

Pursuant to BHMC Section 9-4-506, the developer would be required to submit a Standard Urban Stormwater Mitigation Plan (SUSMP) to the Department of Public Works and Transportation's Utilities Division, which must include the BMPs necessary to control storm water pollution during construction activities and facility operations (Beverly Hills, 2016b). The state permit also specifies that construction activities must meet all applicable provisions of Sections 30 and 402 of the CWA. Conformance with Section 402 of the CWA and the BHMC would ensure that the proposed project does not violate any water quality standards or waste discharge requirements, substantially decrease groundwater, or interfere with groundwater recharge. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

b) **Less than Significant Impact.** AET conducted a Phase I ESA for the project site in May 2011 (AET, 2011). According to the ESA, there were no conditions of environmental concern regarding potential sources for groundwater contamination observed on the project site. The City of Beverly Hills obtains its groundwater supply from the Hollywood Subbasin located in western Los Angeles County. Water-bearing formations of the Hollywood Subbasin include unconsolidated and semi-consolidated marine and alluvial sediments. The project site is underlain by an estimated 110 feet of recent alluvium that overlies the Lakewood Formation (AET, 2011). The site was explored on December 2011 and groundwater was encountered on the site at 35 feet below the existing site grade (Geotechnologies, 2012). Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors. There is no visible evidence of geotechnical and environmental subsurface assessments such as patched borings or groundwater monitoring covers on the project site. During construction dewatering systems or a basin approach would be used to prevent water in the proposed subterranean garage on the construction site. Section 9-4-610 of the BHMC requires a permit for extracting water from a basin or basin drainage area. Compliance with the City ordinance would ensure proper water extraction during construction. Development under the proposed project does not include installation of new groundwater wells, or use of groundwater from existing wells. Therefore, development under the proposed project would not result in a net deficit in aquifer volume or a lowering of the groundwater table. The project would not result in an exceedance of safe yield or a significant depletion of groundwater supplies. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

c, d) **Less than Significant Impact.** The proposed project would not alter the course of a stream or river. The closest stream or river is the Benedict Channel, located approximately 1.6 miles southwest of the project site. The Benedict Channel does not flow through or adjacent to the site. The area is currently developed, and construction of the proposed project would not alter the course of this creek or any other stream or river (no other surface water features are identified in the project area). The proposed development would not introduce new paved areas because there are two existing buildings and a surface parking lot on the project site, therefore the rate or amount of surface runoff is not anticipated to substantially increase. Temporary sedimentation impacts could occur if bare ground is exposed during winter rains. This, in conjunction with other onsite construction activities, has the potential to result in temporary water quality impacts. The developer would be required to comply with the City of Beverly Hills Urban Runoff Mitigation Ordinance (BHMC Section 9-4-506), which requires the implementation of BMPs. Such BMPs include use of plastic coverings on unprotected areas to eliminate erosion; removal of any sediments tracked offsite by construction vehicles; and use of temporary sediment barriers where necessary. The BMPs applied during project construction

would prevent sediment flow into a water source. These construction and erosion control practices would reduce the potential for adverse effects caused by excavation and general construction.

The project site is nearly level, with an elevation range from 174.87 feet in the northwest corner to 170.44 feet in the southeast corner. The project site has a gentle slope towards the southeast. Development of the proposed project would not introduce new surface water discharges as there are already structures on the project site, would not substantially increase runoff volumes, and would not result in flooding on- or off-site. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

g-i) **Less than Significant Impact.** The Federal Emergency Management Agency (FEMA) classifies the City of Beverly Hills under Flood Zone C, which does not require mandatory flood mitigation enforcement. Additionally, the project site is not located in a flood area on the City's Flood Areas map (Beverly Hills Hazard Mitigation Action Plan, 2010b). The City lies in the inundation path of the Lower Franklin Canyon Dam which is located north of the City. In the event of a breach of the Lower Franklin Reservoir, the residential area north of Carmelita Drive would be exposed to immediate and severe danger. Below that point, the danger diminishes rapidly (Beverly Hills General Plan Update Negative Declaration and Environmental Initial Study, 2010c). The project site is not located in the residential area north of Carmelita Drive and, therefore, would not be significantly affected by a dam breach. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

j) **Less than Significant Impact.** The project site is located approximately six and a half miles from the coast of the Pacific Ocean. The risk of a tsunami is negligible due to the distance from the Pacific Ocean. According to the City's Safety Element, mudflows and seiches are not identified as issues for the City. The project site is flat and surrounded by residential and commercial development away from crests and very steep ridges. Therefore, the project site is not located in a hazard area for tsunami, seiche, and mudflow. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **X. <u>LAND USE AND PLANNING</u> -** Would the proposal: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| c) Conflict with an applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☒ |

a) **No Impact.** The proposed commercial office uses and four levels of subterranean parking would not affect through streets or interrupt neighborhood continuity or connectivity, or otherwise physically divide an established community. The project site is currently developed and the proposed project is consistent with the buildings and land uses in the vicinity, therefore the proposed project would not separate an established community. There would be no impact and further analysis of this issue in an EIR is not warranted.

b) **No Impact.** The project site is zoned C-3 (Commercial) and the City of Beverly Hills land use designation is Commercial Low-Density General. The proposed office building is a permitted use within the C-3 zone (BHMC Section10-3-1601) and a commercial office building would be allowed under the land use designation. Therefore, the proposed project would not conflict with any land use plan, policy, or regulation. There would be no impact and further analysis of this issue in an EIR is not warranted.

c) **No Impact.** The project site is located in an entirely urbanized area of Beverly Hills. There are no natural communities or habitats located on the project site, and no habitat/natural community conservation plans are applicable to the site. Therefore, the project would not conflict with any habitat/natural community conservation plans. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XI. <u>MINERAL RESOURCES</u> --** Would the Project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | ☐ | ☐ | ☐ | ☒ |

a-b) **No Impact.** The project site is designated as within Mineral Resource Zone MRZ-1, pursuant to the Division of Mines and Geology Mineral Classification System (Beverly Hills, 2010). The MRZ-1 zone is defined as an area where adequate information indicates that no significant mineral deposits are present or likely to be present (California Department of Conservation, 2016b). The project site is within the limits of the San Vicente Oil Field, 900 feet to the north of the project site. The San Vicente Oil Field is plugged and abandoned and the proposed project would not result in a loss of oil extraction (Geotechnologices, Inc., 2012). The project site is not underlain by any other known oil resources (Beverly Hills, 2010). The project involves redevelopment of land that is already developed and is located in an urbanized area of downtown Beverly Hills. No mineral resources of value to the region or the residents of the

state have been identified within the project area and the project area is not suited for resource extraction given the urban location. There would be no impact and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XII. NOISE** – Would the Project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☒ | ☐ | ☐ | ☐ |
| c) A substantial permanent increase in ambient noise levels above levels existing without the Project? | ☐ | ☐ | ☒ | ☐ |
| d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |
| f) For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise? | ☐ | ☐ | ☒ | ☐ |

Noise and Vibration Fundamentals

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Because of the logarithmic scale of the decibel unit, sound levels cannot be added or subtracted arithmetically. If a sound's physical intensity is doubled, the sound level increases by 3 dBA, regardless of the initial sound level. For example, 60 dBA plus 60 dBA equals 63 dBA. Where ambient noise levels are high in comparison to a new noise source, the change in noise level would be less than 3 dBA. For example, when 70 dBA ambient noise levels are combined with a 60dBA noise source the resulting noise level equals 70.4 dBA.

Noise that is experienced at any receptor can be attenuated by distance or the presence of noise barriers or intervening terrain. Sound from a single source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. For acoustically absorptive, or soft, sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), ground attenuation of about 1.5 dBA per doubling of distance normally occurs. A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receiver, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dBA of noise reduction.

Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

The Office of Planning and Research has adopted guidelines based on the community noise compatibility guidelines established by the State Department of Health Services in order to assess the compatibility of various land use types with a range of noise levels. These guidelines are utilized by the City of Beverly Hills and are presented in Table 7. An exterior noise level up to 75 dBA Community Noise Equivalent Level (CNEL) is "normally acceptable" for office buildings and business commercial uses, without special noise insulation requirements. With special noise requirements a conditionally acceptable noise level at office buildings and business commercial uses is slightly higher at 77.5 CNEL. A "normally unacceptable" noise level at office buildings and business commercial uses is 75 – 85 CNEL. There is no noise level that is clearly unacceptable for office buildings and business commercial uses. A "normally

acceptable" designation indicates that standard construction can occur with no special noise reduction requirements. However, the project site is within the City's Commercial-Residential Transition Area, which applies to the portion of a Commercial zone within 170 feet of a Residential zone. Section 10-3-1956 of the BHMC requires all businesses in the Commercial-Residential Transition Area to comply with several requirements to remain within the City's noise regulations. Specifically, in Section 10-3-1956(A8) noise from the proposed project shall not unreasonably disturb the peace and quiet of any neighborhood. Factors that are considered in determining whether an activity disturbs the peace and quiet of a neighborhood include the volume of the noise; whether the noise is unusual; whether the noise is natural; volume of the noise; proximity of the noise to residential sleeping facilities; time of day and/or night of the noise; noise duration; and whether the noise is recurrent, intermittent, or constant.

**Table 7**
**Land Use Noise Compatibility Matrix**

| Land Use Category | Community Noise Exposure Level | | | |
|---|---|---|---|---|
| | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential (Low Density, Single Family, Duplex, Mobile Homes) | 50-60 | 55-70 | 70-75 | 75-85 |
| Residential (Multiple Family) | 50-65 | 60-70 | 70-75 | 70-85 |
| Transient Lodging (Hotel, Motel) | 50-65 | 60-70 | 70-80 | 80-85 |
| Schools, Libraries Churches, Hospitals, Nursing Homes | 50-70 | 60-70 | 70-80 | 80-85 |
| Office Buildings, Business Commercial and Professional | 50-75 | 67.5-77.5 | 75-85 | NA |

*Source: Appendix C of the City of Beverly Hills General Plan, 2010.*

a, c, d) **Less than Significant Impact.** The main noise source on the project site is motor traffic noise from adjacent roadways. Roadways that contribute to ambient noise near the project site include Wilshire Boulevard and S. Almont Drive.

Existing Ambient Noise Levels

To determine existing ambient noise levels on the project site, three 15-minute noise measurements were taken on the project site between on Friday, November 20, 2015 between 4:20 p.m. and 5:35 p.m. using ANSI Type II integrating sound level meter. The first noise measurement was located at the northwestern corner of the project site along Wilshire Boulevard. The second noise measurement was located south of the project site in the residential area along S. Almont Drive. The third noise measurement was taken north of the project site along N. Almont Drive. Figure 7 shows the on-site noise measurement locations, and Table 8 identifies the measured noise levels in $L_{eq}$. The $L_{eq}$ is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, $L_{eq}$ is summed over a one-hour period. As shown in Table 8, noise levels were measured at 74.7 dBA $L_{eq}$ along Wilshire Boulevard, 64.2 dBA along S. Almont Drive, and 63.9 dBA along N. Almont Drive. During the noise measurements motor vehicles were the primary noise source of noise.

**Table 8**
**On-Site Noise Measurement Results**

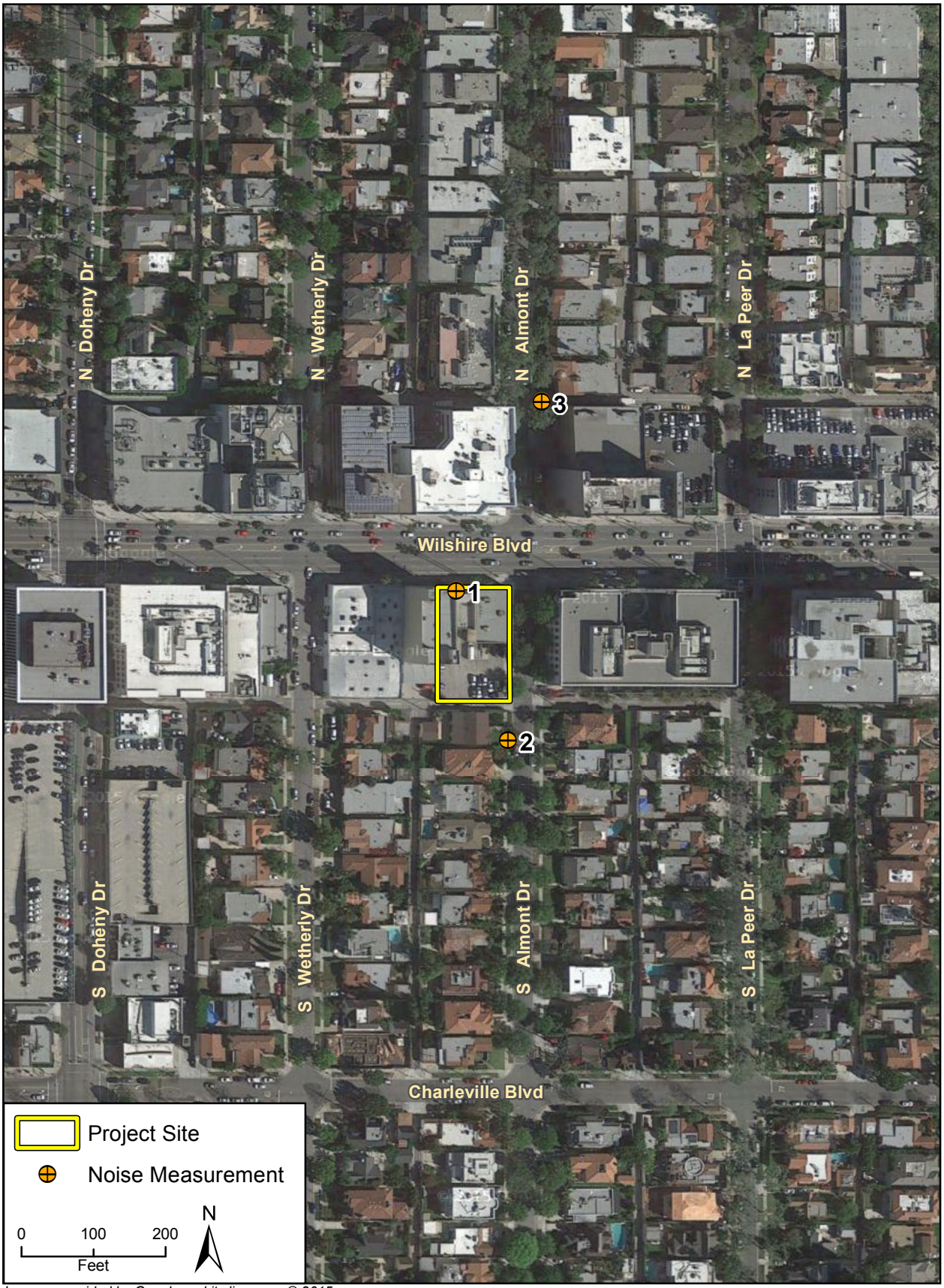
| Measurement Number | Measurement Location | Noise Sources | Sample Time | $L_{eq}$ (dBA) |
|---|---|---|---|---|
| **1** | Wilshire Blvd. | Traffic on Wilshire Blvd. | Weekday afternoon | 74.7 |
| **2** | S. Almont Dr. | Traffic on S. Almont Dr. and on Wilshire Blvd. | Weekday afternoon | 64.2 |
| **3** | N. Almont Dr. | Traffic on N. Almont Dr. and on Wilshire Blvd. | Weekday afternoon | 63.9 |

*Source: Field visit on November 20, 2015, using ANSI Type II Integrating sound level meter.*
*Refer to Appendix C for noise monitoring data sheets.*

Construction Noise

Project construction would result in temporary noise level increases. As shown in Table 9, noise levels associated with heavy equipment typically range from about 74 to 88 dBA at a reference distance of 50 feet from the source and from 79.8 to 93.8 dBA at a distance of 25.5 feet (representing the nearest sensitive receptors, the residential community south of the proposed project).

Pursuant to the City's noise ordinance (BHMC Section 5-1-202) a significant impact would occur if construction activities would result in an increase of 5 dBA or more outside of the hours permitted by the City's noise ordinance, Section 5-1-205 of the BHMC. Pursuant to Section 5-1-205 of the BHMC a significant noise impact would result if construction occurs outside the hours permitted by the City's noise ordinance (i.e., between the hours of 6:00 PM and 8:00 AM on weekdays, or at any time on Sunday or a public holiday). Further, construction work within 500 feet of a residential zone is prohibited on Saturdays unless the city building official has issued an after hours construction permit pursuant to BHMC Section 5-1-205C. Because construction would occur during permitted hours it would not result in significant noise impacts on nearby sensitive receptors.




*Imagery provided by Google and its licensors © 2015.*

Location of Noise Measurements

Figure 7

**Table 9**
**Typical Noise Levels at Construction Sites**

| Equipment | Typical Level (dBA) | |
|---|---|---|
| | 25.5 Feet | 50 Feet |
| Augur Drill Rig | 89.8 | 84 |
| Backhoe | 83.8 | 78 |
| Compactor (ground) | 88.8 | 83 |
| Dozer | 87.8 | 82 |
| Dump Truck | 81.8 | 76 |
| Excavator | 86.8 | 81 |
| Flat Bed Truck | 79.8 | 74 |
| Front End Loader | 84.8 | 79 |
| Generator | 86.8 | 81 |
| Grader | 88.8 | 83 |
| Jackhammer | 93.8 | 88 |
| Pickup Truck | 80.8 | 75 |
| Pneumatic Tools | 90.8 | 85 |
| Roller | 85.8 | 80 |
| Scraper | 89.8 | 84 |
| Warning Horn | 88.8 | 83 |
| Welder/Torch | 79.8 | 74 |

*Source: Hanson, Towers, and Meister, May 2006.*

*Note: In lieu of pile drivers, project construction would use soldier piles in a drilled shaft. Pile drivers are not permitted onsite pursuant to the City of Beverly Hills Building and Safety Department (Ryan Gohlich, personal communication, April 2012). Soldier piles in a drilled shaft are drilled prior to excavation and as excavation proceeds a wall is constructed behind the piles. Noise levels are reduced because piling takes place within the shaft. Soldier piles in a drilled shaft are not included in the Federal Transit Administration's (FTA) 2006 Transit Noise and Vibration Impact Assessment or KOA's 2012 construction noise levels assessment, and are therefore not included in Table 9.*

Operational Noise

Existing uses near the project site may periodically be subject to noises associated with operation of the proposed project, including noise that is typical of commercial development and parking garages, such as conversations; trash hauling; delivery traffic, loading and unloading; tire and engine noise from the movement of vehicles on driveways; noise associated with rooftop ventilation and heating systems; and beeping from the locking and unlocking of motor vehicles. However, this noise would be comparable to that generated by the two existing onsite commercial buildings. The two-story building on the east side of the site is currently occupied by an antique/art shop, and the one-story building on the west side of the site consists of three retail spaces that are occupied by a café, vape shop/lounge, and a vacant commercial space. These uses generate similar noise form trash hauling, delivery traffic, loading and unloading, and tire and engine noise. In addition, the parking garage would be subterranean so noise impacts associated with parking lot activity would be minimal.

The proposed project would generate traffic noise from vehicles traveling to and from the project site. As described in Section XVI, *Transportation/Traffic,* the trip generation rate is based on the ITE's trip rates for general office uses. Based on this rate, the proposed project would add an estimated 350 vehicle trips on weekdays (KOA, 2015). Roughly a doubling of traffic volume would be necessary to generate a perceptible increase in roadway noise levels of 3 dBA or more. Wilshire Boulevard experiences an average daily traffic of 21,500 vehicles eastbound and 23,100 vehicles westbound (Beverly Hills, 2013). The estimated 350 vehicles would not cause a doubling in traffic volume. Therefore, the traffic generated by the proposed project would not result in a perceptible increase in roadway noise.

Conclusion

The proposed project would not result in a significant long-term increase in traffic noise levels, and temporary construction noise would be less than significant, based on compliance with the City's time restrictions on construction activities contained in the City's Municipal Code. The project does not involve operational activities that would adversely affect nearby receptors. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

b) **Less than Significant Impact.** Significant impacts from vibration occur when vibration or groundborne noise levels exceed the Federal Railroad Administration (FRA) maximum acceptable level threshold of 65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, including hotels, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).

Construction of the proposed project would involve equipment, including pile installation which would generate about 93 VdB 25 feet from the source (Federal Railroad Administration, 2012). Factoring in the proposed project's required three-foot setback, the existing alley, and a required 2.5-foot highway dedication, the closest sensitive receptor to the project site is a single-family residence approximately 25.5 feet south of the project site that would experience vibrations measured at approximately 92 VdB. As noted above, impacts would be significant if vibration levels exceeded 72 VdB during recognized sleep hours (as established by the Federal Railway Administration for places where people normally sleep). Though vibration levels may exceed 72 VdB at nearby sensitive receptors, construction activities would be limited to daytime hours between 8:00 AM to 6:00 PM Monday through Friday per BHMC Section 5-1-205. Therefore, vibration levels would not affect residential uses that are sensitive to vibration levels during recognized sleep hours. In addition, the project would not exceed vibration levels that could potentially damage nearby buildings.

Construction activity would be temporary, and the use of vibration-generating heavy equipment would be primarily limited to periodic loaded trucks. As construction of the outer shell of the building progresses, the building itself would contain much of the construction activity, and the likelihood of utilizing heavy equipment outdoors decreases. Vibration would be a temporary impact during construction and would not occur during normal sleep hours. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

e-f) **No Impact.** The project site is located approximately five miles northeast of the Santa Monica Municipal Airport. The project site is not within an area covered by an airport land use plan, nor is it located in the vicinity of a private air strip. At a distance of five miles, the proposed project would not expose people residing or working in the project area to significant aircraft-generated noise. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIII. POPULATION and HOUSING** — Would the Project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

a) **No Impact.** The proposed project would involve the development of a commercial office building. The office building would not include any residences and would not generate any population growth. There would be no impacts. Further analysis of this issue in an EIR is not warranted.

b-c) **No Impact.** There are no housing units on the project site or people residing on the project site in any form of temporary housing. Therefore, the project would not displace any existing housing units or people. No impact would occur and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIV. PUBLIC SERVICES** | | | | |
| a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service | | | | |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIV. PUBLIC SERVICES** | | | | |
| ratios, response times or other performance objectives for any of the public services: | | | | |
| i) Fire protection? | ☐ | ☐ | ☒ | ☐ |
| ii) Police protection? | ☐ | ☐ | ☒ | ☐ |
| iii) Schools? | ☐ | ☐ | ☐ | ☒ |
| iv) Parks? | ☐ | ☐ | ☒ | ☐ |
| v) Other public facilities? | ☐ | ☐ | ☒ | ☐ |

a. i.) **Less than Significant Impact.** Fire protection, rescue services, and emergency medical (paramedic services) are provided by the Beverly Hills Fire Department (BHFD). Beverly Hills is recognized as one of the seven most fire-safe cities in the country (Beverly Hills, 2005). The fire station closest to the Project Site is Fire Station No. 3 located at 180 S. Doheny Drive approximately 0.2 mile southwest of the project site. Fire Station No. 1 is also located within close proximity to the project site, approximately 0.8 mile northwest of the project site.

The proposed project would not add additional residents to the City population, but would bring employees to the office building. The proposed project would be required to comply with the California Fire Code, Uniform Building Code, and BHFD standards, including specific construction specifications, access design, location of fire hydrants, and other design requirements. BHFD has a response time average of four minutes for fire suppression and three and a half minutes for emergency medical responses (Beverly Hills, 2016c). With continued implementation of existing practices of the City, including compliance with the California Fire Code and the Uniform Building Code, the proposed project would not significantly affect community fire protection services and would not result in the need for construction of fire protection facilities. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

a. ii.) **Less than Significant Impact.** Police protection is provided by the Beverly Hills Police Department (BHPD). The station closest to the project site is BHPD headquarters located at 464 North Rexford Drive, approximately 0.9 miles from the project site. The City of Beverly Hills maintains a ratio of 3.4 officers/1000 residents, but does not utilize a standard personnel-to-population ratio to determine optimum staffing levels because of the disparity in the daytime population vs. the nighttime population (City-Data, 2016). It is estimated that the nighttime population (residents) is approximately 34,833 residents (California Department of Finance, 2015) and the daytime population is approximately 100,000 to 150,000 persons (Beverly Hills, 2014). Thus, the BHPD's main indicator of effectiveness is its response time to emergency calls. The Department maintains an emergency response time of approximately 2.8 minutes (Beverly Hills, 2016d). The BHPD is funded through general fund revenues generated by property and sales taxes.

The proposed project would add employees in the new office building; however, the project would not cause substantially delayed response times, degraded service ratios or necessitate construction of new facilities, due to the site location within an already developed and well-served area with a low response time of 2.8 minutes. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

a. iii.) **No Impact.** The project site is served by the Beverly Hills Unified School District (BHUSD). The proposed project would not involve any new residents, and therefore would not result in any additional students in the school district. There would be no impact. Further analysis of this issue in an EIR is not warranted.

a. iv.) **Less than Significant Impact.** The Beverly Hills Recreation and Parks Department is responsible for maintaining and planning for parkland in the City of Beverly Hills. The closest public parks are the Beverly Gardens Park located approximately 0.65 miles northwest, the Roxbury Park located approximately one mile southwest, and La Cienega Park located approximately one mile southeast of the project site. Implementation of the proposed project would not increase the use of recreational facilities such that physical deterioration of the facilities would occur or be accelerated, due to the distance of the project site from the closest parks In addition, the use of parks for recreational purposes is not typical for an office use. In the event that employees would use parks, it would likely be for passive activities, such as meditation or relaxation, or as a space to eat lunch. However, the proposed project would include a rooftop lunchroom for building occupants. Therefore, impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

a. v.) **Less than Significant Impact.** The proposed 31,702-square foot building would contribute incrementally toward impacts to the City's public services and facilities such as storm drain usage (discussed in Section VIII, *Hydrology and Water Quality*), public parks (discussed above in this section), solid waste disposal, water usage and wastewater disposal (discussed in more detail in Section XVII, *Utilities*). There are no public services or public facilities, such as libraries or hospitals, for which significant impacts are anticipated. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. RECREATION —** | | | | |
| a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☒ | ☐ |
| b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☒ | ☐ |

a) **Less than Significant Impact.** As discussed above in Section XIII, *Public Services*, the Beverly Hills Recreation and Parks Department is responsible for maintaining and planning for parkland in the City of Beverly Hills. The closest public parks are the Beverly Gardens Park located approximately 0.65 miles northwest, the Roxbury Park located approximately one mile southwest, and La Cienega Park located approximately one mile southeast of the project site. Use of parks for recreational purposes is not typical for an office use. In the event that employees would use parks, it would likely be for passive activities, such as meditation or relaxation, or as a space to eat lunch. However, the proposed project would include a rooftop lunchroom for building occupants. Therefore, implementation of the proposed project would not increase the use of recreational facilities such that physical deterioration of the facility would occur or be accelerated, due to the distance from parks resulting in the limited use of parks by project employees. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

b) **Less than Significant Impact.** The City of Beverly Hills owns and operates approximately 77 acres of public parks, and a total of approximately 100 acres of open space area (inclusive of the 77 acres of public parks) (Beverly Hills, 2010a and 2016). The project applicant would be required to pay the City's Park and Recreation Facilities Construction Tax, pursuant to BHMC Section 3-1-703. The proposed project would not directly affect any existing or planned parks. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. <u>TRANSPORTATION / TRAFFIC</u>** -- Would the project: | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. <u>TRANSPORTATION / TRAFFIC</u>** -- Would the project: | | | | |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities? | ☐ | ☐ | ☒ | ☐ |

a, b, d, e, f) **Less Than Significant Impact.** The project site currently includes two existing buildings that generate 358 vehicles trips on weekdays. The December 11, 2015 *Traffic Impact Study for 9000 Wilshire Boulevard Office Building, Beverly Hills* prepared by KOA Corporation identified the potential traffic impacts associated with the proposed project. The following analysis of potential traffic is based on the traffic study that was peer reviewed by the City's traffic engineer and is included as Appendix D (KOA, 2015).

<u>Project Trip Generation and Distribution</u>
Project trip generation calculations included rates for general office uses. Rates for this use in *Trip Generation* (*9th edition*), published by the Institute of Transportation Engineers (ITE), were compared to surveyed office use rates at an existing use located at 9378 Wilshire Boulevard. To provide a comparative land use trip generation rate, this similar use was chosen as it is a three-story building with a single parking garage entrance on Canon Drive. Based on the observed trip generation rates of this similar use, the ITE rates were found to provide a more conservative analysis. Therefore, the project trip generation and existing site use credit calculations were based on the ITE-defined rates.

The analyzed trip distribution pattern assumed that trips would use study intersections on Wilshire Boulevard as well as neighborhood roadways to access the project site. The main access to the project site is from Wilshire Boulevard; however, some project trips may use the alley located to the south of Wilshire Boulevard, between Almont Drive and La Peer Drive. The intersections of the alley with north-south cross-streets in the vicinity of the project site are signed with one-way directional signs, regulating an eastbound-only flow for vehicles within the alley segments. Outbound traffic from the project site may use this alleyway to travel eastbound from the project site.

The land use associated with the proposed project is estimated to generate a gross total of 350 weekday vehicle trips, including 49 trips during the weekday a.m. peak hour and 47 during the weekday p.m. peak hour. The proposed project would generate 78 daily Saturday vehicle trips including 14 trips during the mid-day peak hour. Trip generation rates were determined using ITE rates for all of the proposed project land uses.

City of Beverly Hills Thresholds

The City of Beverly Hills considers a traffic impact to be significant at a signalized intersection if traffic generated by a project would cause an increase of:

- *0.020 or more on V/C at the final LOS "F"*
- *0.020 or more on V/C at the final LOS "E"*
- *0.030 or more on V/C at the final LOS "D" or better*

The City of Beverly Hills considers a traffic impact to be significant at an unsignalized (all-way stop) intersection if the following increase of average total delay per vehicle results in:

- *3.0 seconds or more average total delay at the final LOS "F"*
- *3.0 seconds or more average total delay at the final LOS "E"*
- *4.0 seconds or more average total delay at the final LOS "D"*

The City of Beverly Hills considers a traffic impact to be significant at an unsignalized (two-way stop) intersection if a project would cause the following change in level of service on any direction of travel:

- *LOS D or better to LOS E or worse*
- *LOS E to LOS F*
- *LOS F to LOS F (resulting in increase of 10 or more average daily total (sec/vehicle) in any direction)*

Existing Conditions (Year 2015)

Based on the 2015 peak-hour traffic counts, an Intersection Capacity Utilization (ICU) value that equates to a volume-to-capacity ratio and corresponding level of service value were determined for each study area intersection under existing conditions. The Highway Capacity Manual (HCM) methodology was also used to analyze vehicle delay in seconds. Table 10 shows the level of service (LOS) and ICU results at each study intersection during peak hours under existing conditions (year 2015). The peak hours for weekday traffic in Beverly Hills are 7:30 a.m. – 9:30 a.m. and 4:30 p.m. – 6:30 p.m., and weekend peak hours are Saturday 1:00 p.m. – 3:00 p.m.

**Table 10**
**Existing (2015) and Future (2018) Pre-Project Level of Service Conditions at Project Site**

| Study Intersections | Existing ICU or Delay (sec.) Weekday AM Peak Hour/LOS | Existing ICU or Delay (sec.) Weekday PM Peak Hour/LOS | Future ICU or Delay (sec.) Weekday AM Peak Hour/LOS | Future ICU or Delay (sec.) Weekday PM Peak Hour/LOS |
|---|---|---|---|---|
| Doheny Dr / Wilshire Blvd | 0.838 / D | 0.861 / D | 0.910 / E | 0.942 / E |
| Almont Dr / Wilshire Blvd * | *** / F | *** / F | *** / F | *** / F |
| La Peer Dr / Wilshire Blvd | 0.688 / B | 0.679 / B | 0.755 / C | 0.752 / C |
| Almont Dr / Charleville Blvd ** | 8.3 sec / A | 9.0 sec / A | 8.4 sec / A | 9.2 sec / A |

*Source: KOA Corporation, 2015*

*Notes: * Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds. ** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds. *** At high levels of congestion, the HCM output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Project significant impacts are not defined at this location.*

The unsignalized Almont Drive/Wilshire Boulevard intersection, which is adjacent to the project site, operates at LOS E or F during all time periods analyzed. This result is due to the relatively high traffic volumes on Wilshire Boulevard, which makes it difficult to make northbound and southbound left-turns from Almont Drive onto Wilshire Boulevard. Average delay across all intersection approaches is low, however, since the Almont Drive stop-sign-controlled volumes are low compared to the free-flowing volumes on Wilshire Boulevard.

Future Pre-Project Conditions (Year 2018)

The year 2018 was selected for analysis based on the anticipated full occupation date for the proposed project and includes future traffic conditions without implementation of the proposed project. An annual growth rate of 1 percent was used as the future forecast ambient growth rate and a growth factor of 1.0303 was applied to existing traffic counts to define three years of traffic growth between 2015 and 2018 conditions. Area/cumulative projects within a 1.5-mile radius of the project site were added to the study intersections using a distribution pattern based on the hierarchy of the local street system. Table 10 shows the LOS, HCM, and ICU results at each study intersection under the future pre-project conditions.

The signalized Doheny Drive/Wilshire Boulevard intersection would degrade from LOS D to LOS E during the weekday peak hours with the addition of cumulative traffic. The unsignalized intersection of Almont Drive/Wilshire Boulevard would operate at LOS F during all periods of the analyzed scenario.

Existing Plus-Project Conditions (Year 2015)

The existing plus-project traffic conditions are the existing traffic conditions at the study intersections with the addition of traffic generated by the proposed project. Traffic volumes were developed by adding the forecast traffic volumes to the existing volumes. Table 11 below provides the LOS and ICU for each study intersection with existing plus-project conditions (year 2015).

**Table 11**
**Future (2018) Pre-Project and Future (2018) Plus-Project Level of Service Conditions at Project Site**

| Study Intersections | Future Pre-Projec ICU or Delay (sec.) Weekday AM Peak Hour/LOS with Project | Future Pre-Proect ICU or Delay (sec.) Weekday PM Peak Hour/LOS with Project | Future Plus-Project ICU or Delay (sec.) Weekday AM Peak Hour/LOS with Project | Future Plus-Project ICU or Delay (sec.) Weekday PM Peak Hour/LOS With Project |
|---|---|---|---|---|
| Doheny Dr / Wilshire Blvd | 0.910 / E | 0.942 / E | 0.914 / E | 0.944 / E |
| Almont Dr / Wilshire Blvd * | *** / F | *** / F | *** / F | *** / F |
| La Peer Dr / Wilshire Blvd | 0.0755 / C | 0.752 / C | 0.758 / C | 0.754 / C |
| Almont Dr / Charleville Blvd ** | 8.4 sec / A | 9.2 sec / A | 8.5 sec / A | 9.2 sec / A |

*Source: KOA Corporation, 2015*

*Notes: * Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds. ** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds. *** At high levels of congestion, the HCM output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Project significant impacts are not defined at this location.*

As shown above in Table 11, the addition of project-related traffic would not signficantly change the LOS at the study intersections as compared to the future year 2018 pre-project conditions and any changes would remain under the City's significance thresholds.

Future Post-Project Conditions (Year 2018)

The future post-project conditions are the future traffic conditions at the study intersections with the addition of the project-generated traffic in the project planned opening year of 2018. Traffic volumes for this scenario were developed by adding the project traffic volumes to the future volume forecasts, which included the expected ambient traffic growth as well as forecast traffic growth from identified area projects. Table 11 shows the LOS and ICU for each study intersection with future plus-project conditions (year 2018).

The addition of project-related traffic to future year 2018 forecasts would not degrade the LOS at any study intersection for any of the analyzed time periods and any changes would remain under the City significance thresholds listed above. Therefore, the projects contribution to traffic in the future year 2018 is not cumulatively considerable.

Parking Supply and Demand

The proposed project would provide 91 subterranean parking spaces and 11 bicycle racks. The City of Beverly Hills requires 2.86 parking spaces per 1,000 square feet of commercial/office use development. Based on City Code the project would require 91 parking spaces, and the project would therefore provide adequate parking.

Project Driveway Operations

The driveway of the proposed project on Almont Drive would have a one-lane exit lane and a one-lane entrance lane. Left-turn movements into the project site would occur from a shared lane that is also a northbound through movement. Right-turn movements into the project site

would occur from a shared lane that is also a southbound through movement. Morning peak hour northbound movement would have an average vehicle delay of 7.4 seconds caused by vehicles turning into the project site and a LOS A; queues would therefore be negligible. The outbound/eastbound movement would have an average vehicle delay of 9.0 seconds, caused by vehicles waiting for cross-traffic on Almont Drive. Operations would be a LOS A and queues would be negligible.

Residential Roadway Segment Analysis

KOA performed a residential street segment analysis, for year 2018 conditions, using the weekday a.m. and p.m. peak hours and Saturday midday period volumes as well as the weekday and Saturday total volumes at the following locations: Almont Drive, south of Wilshire Boulevard; Charleville Boulevard, east of Almont Drive; and Almont Drive, south of Charleville Boulevard. The analysis results indicate that the proposed project would not add significant volumes to the three analyzed residential roadway segments during any of the analyzed peak-hour periods as shown in Table 12 and compared to the Beverly Hills 16 percent significance threshold, based on the analysis of net project trip generation including credits for the existing commercial retail use to be removed as part of the project construction.

**Table 12**
**Residential Street Analysis**

| Roadway | A.M. 2018 Percent Increase with Project | P.M. 2018 Percent Increase with Project | Significant |
|---|---|---|---|
| Almont Drive, south of Wilshire Boulevard | 5.5 | 5.2 | No |
| Charleville Boulevard | 1.0 | 0.4 | No |
| Almont Drive, south of Charleville Boulevard | 0.8 | 0.6 | No |

*Source: KOA Corporation, 2015*

Construction Traffic

Construction traffic impacts on roadway facilities would be identified as significant if the construction of a project creates a prolonged impact due to lane closure, emergency vehicle access, traffic hazards to bicycles and pedestrians, damage to the roadbed, truck traffic on roadways not assigned as truck routes, and other similar impediments to circulation. During the construction period, a total of 50 employees would be on the project site. It is assumed that the total vehicle need for parking of construction staff would be for 42 vehicles, based on the carpooling activity and average vehicle occupancy of 1.2 (KOA, 2015). The contractor would procure parking from surrounding commercial buildings until the project's underground structure is complete. After that point, the contractor would use the project's off-street and underground parking supply, while the remainder of the project elements are under construction. The project EIR will address the location of the project site and how project construction will interact with Metro construction of the new Purple Line.

During the construction period, a total of 50 employees would be on the project site and there would be six truck trips per hour. Table 13 summarizes the employee and truck trips during the a.m. and p.m. peak hours.

**Table 13**
**Project Construction Trip Generation**

| | Intensity | Units | Daily Total | AM Peak In | AM Peak Out | PM Peak In | PM Peak Out |
|---|---|---|---|---|---|---|---|
| Employees | 50 | Staff | 84 | 42 | 0 | 0 | 42 |
| Truck Trips* | | | 150 | 8 | 8 | 8 | 8 |
| Total Construction Trips | | | 234 | 50 | 8 | 8 | 50 |

*Source: KOA Corporation, 2015. * Truck trips include a passenger car equivalency (PCE) factor of 2.5. Trucks – 6 trucks for hauling work per hour. Assumed 10x for daily.*

The proposed project would generate a daily total of 84 employee trips with 42 trips during the a.m. peak hour and 42 trips during the p.m. peak hour. The Passenger Car Equivalency (PCE)-adjusted truck trips would generate a daily total of 150 trips, with 15 trips during the a.m. and p.m. peak hours. Traffic impacts created by project construction were calculated by subtracting the values in the Future Pre-Project (Year 2018) column from future construction trip values, as shown in Table 14.

**Table 14**
**Project Construction Impacts**

| Study Intersections | Peak Hour | Existing (2015) Conditions ICU or Delay (sec.)/LOS | Future 2018 No Project Conditions ICU or Delay (sec.) /LOS | Future 2018 with Construction ICU or Delay (sec.)/LOS |
|---|---|---|---|---|
| Doheny Dr / Wilshire Blvd | Weekday AM | 0.838 / D | 0.910 / E | 0.910 / E |
| | Weekday PM | 0.9 / D | 0.942 / E | 0.950 / E |
| Almont Dr / Wilshire Blvd * | Weekday AM | *** / F | > 100 / F | *** / F |
| | Weekday PM | *** / F | > 100 / F | *** / F |
| La Peer Dr / Wilshire Blvd | Weekday AM | 0.688 / B | 0.755 / C | 0.779 / C |
| | Weekday PM | 0.679 / B | 0.752 / C | 0.763 / C |
| Almont Dr / Charleville Blvd ** | Weekday AM | 8.3 sec / A | 8.4 sec / A | 8.4 sec / A |
| | Weekday PM | 9.0 sec / A | 9.2 sec / A | 9.2 sec / A |

*Source: KOA Corporation, 2015. * Unsignalized intersection - the Highway Capacity Manual (HCM) methodology was utilized to anlyze the vehicle delay in seconds. ** All-way stop-controlled intersection - the HCM methodology was utilized to anlyze the vehicle delay in seconds. *** At high levels of congestion, the HCM output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Project significant impacts are not defined at this location.*

Using year 2018 conditions as the baseline, the project would not create any definable significant impacts (KOA, 2015).

<u>County of Los Angeles Congestion Management Program</u>
The County of Los Angeles Congestion Management Program (CMP) was created statewide pursuant to Proposition 111 and implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted at CMP arterial monitoring intersections, where the proposed project would add 50 or more vehicle trips during either morning or afternoon weekday peak hours; and at CMP mainline freeway-monitoring locations where the project would add 150 or more trips, in either direction, during either the morning or afternoon weekday peak hours. The nearest CMP

arterial monitoring intersections to the project site are on Wilshire Boulevard at Santa Monica Boulevard and La Cienega Boulevard, in the City of Beverley Hills. Based on project trip generation and the distance of this CMP location from the study intersections, 50 or more new vehicle trips per hour would not be added to this location. Therefore, further analysis of potential CMP impacts is not required.

Conclusion

The proposed project would not significantly impact any of the four intersections analyzed or traffic at a CMP arterial intersection. The assessment of traffic impacts, parking supply and demand, site access, and construction impacts determined that there would be no significant impacts. However, these issues will be further analyzed in the Transportation/Traffic section of the Draft EIR for the purposes of public review and comment.

c) **No Impact.** Santa Monica Airport is approximately five miles southwest of the project site. The proposed project would involve the construction of a new 31,702 square-foot building with three stories of commercial office uses and four levels of subterranean parking that would have a height of 45 feet to the top of the roof, above which a 3 feet, 6 inch metal panel would serve as a parapet. A painted steel brise soleil (perforated screen to filter sunlight) above the rooftop lunch terrace and mechanical area would extend 15 feet above the top of the roof. Additionally, there is an enclosed lunchroom space on the rooftop with a maximum height of 15 feet. Given the nature and scope of the proposed project, and that the closest airport is approximately five miles away, the proposed project would not affect air operations, alter air traffic patterns or in any way conflict with established Federal Aviation Administration (FAA) flight protection zones. There would be no impact and further analysis of this issue in an EIR is not warranted.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVII. UTILITIES—** Would the Project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☒ | ☐ |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVII. UTILITIES—** Would the Project: | | | | |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☒ | ☐ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs? | ☐ | ☐ | ☒ | ☐ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

a, b, e) **Less than Significant Impact.** The project site is currently developed with one-story and two-story commercial buildings and a surface parking lot. The proposed project would involve the construction of a new 31,702 square-foot building with three stories of commercial office uses and four levels of subterranean parking.

The City's Department of Public Works maintains sewer collection and distribution systems located throughout Beverly Hills. The existing sanitary sewer system consists of over 95 miles of sewer mains that connect to the City of Los Angeles' sewer facilities at the southeastern border of Beverly Hills (Beverly Hills, 2010). The City sewer system currently serves a nighttime population of approximately 34,833 residents (DOF, 2015) and a daytime population of approximately 100,000 to 150,000 persons (Beverly Hills, 2014) in a service area comprised of a mixture of land uses including residential, commercial, industrial and institutional.

All of the wastewater flows generated in the City (not including storm water) are collected and treated at the Los Angeles Hyperion Wastewater Treatment Plant (HTP), located on the coast at 12000 Vista Del Mar south of LAX in the City of Los Angeles. The HTP is the largest of four wastewater treatment plants in the area surrounding the City of Los Angeles. Its primary treatment is completed with retention ponds, chemical coagulants and settling tanks. The HTP can accommodate a dry weather flow of 450 million gallons per day (mgd) and a wet weather flow of 850 mgd (LA Sanitation District, 2016). Currently, the HTP treats an average of 362 mgd, which is 88 mgd below dry weather capacity (LA Sanitation District, 2016). The City's system allows pass-through for flow generated in the portion of the City of Los Angeles north of Beverly Hills. The maximum recorded daily flow generated in the City is approximately 12 2013 million gallons per day and the average flow is approximately 6 million gallons per day (GPD) (Beverly Hills, 2010).

The HTP is currently operating at approximately 88 mgd below dry weather capacity. Office buildings generate an estimated 150 gallons of wastewater per day per 1,000 gross square foot (City of Los Angeles, 2006). The proposed 31,702 square foot building would therefore produce 4,755 gallons of wastewater per day, which represents about 0.005 percent of the HTP's 88 million GDP available capacity. Therefore, sufficient treatment capacity at the HTP is available to serve the proposed project.

The Los Angeles Regional Water Quality Control Board (RWQCB) stipulates standards and regulations for utility service providers such as the HTP. A substantial increase in wastewater diverted to the HTP could conflict with pollutant standards and regulations of the LARWQCB. The project would not exceed the wastewater limits of the HTP. Therefore, the plant would be able to adequately treat project-generated sewage in addition to existing sewage, and the treatment requirements of the RWQCB would not be exceeded. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

c) **Less than Significant Impact**. As discussed in Section IX, *Hydrology and Water Quality*, compliance with applicable regulations would ensure that the project could accommodate all stormwater runoff. Best Management Practices (BMPs) would be required during construction and operation of the project to lessen the amount of runoff from the project site to the maximum extent practicable. In addition, the City requires that applicants prepare an urban runoff mitigation plan prior to construction of a project. This plan must comply with the most recent Standard Urban Stormwater Mitigation Plan (SUSMP) and the current municipal National Pollutant Discharge Elimination System (NPDES) permit. This process is intended to reduce storm water discharges by requiring the applicant to increase pervious surface area on the project site and to reduce the amount of runoff to the City's storm drain system. The NPDES permit issued to the Los Angeles RWQCB provides regulations for urban runoff discharges in the County of Los Angeles. New storm drain facilities and expansion of existing facilities would not be necessary. The overall effect of the proposed project would be to ultimately reduce pollutants from the site that enter the storm drain system since the new development would be subject to current regulatory requirements, which are more stringent than regulations to which the existing onsite development was subject. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

d) **Less than Significant Impact.** The City receives water from local groundwater extracted from the Hollywood Basin and imported surface water purchased from the Metropolitan Water District (MWD). The City receives 90 percent of its water supply from the MWD which comes from the State Water Project and the Colorado River. Approximately 10 percent of the City's water supply comes from groundwater pumped from the Hollywood Basin totaling approximately 1,500 acre-feet per year. The residential sector of the City is comprised of single and multi-family residential customers. Residential uses accounted for approximately 78 percent of citywide consumption from 2006 to 2009 (Beverly Hills, 2010d), but decreased to 72 percent in 2010 due to implementation of Stage B Water Use Restrictions as part of the City's Water Conservation Ordinance. The commercial/industrial/municipal sector comprises approximately 22 percent of citywide consumption (Beverly Hills, 2010d). Normal year future projected supply and demand is shown in Table 15.

**Table 15**
**Normal Year Water Supply & Demand Projections**

| Water source | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|
| Supply (AF) | 19,653 | 22,453 | 23,693 | 22,441 | 21,360 |
| Demand (AF) | 11,654 | 11,786 | 11,913 | 12,036 | 12,153 |
| Surplus (AF) | 7,999 | 10,667 | 11,780 | 10,405 | 9,207 |

*Note: AF=acre feet*
*Source: City of Beverly Hills Urban Water Management Plan, 2010 for years 2015 through 2035, table 5.4*
*City of Beverly Hills Urban Water Management Plan*

In response to drought conditions and mandatory statewide conservation of urban water use, MWD provides a water savings incentive program to member agencies, such as Beverly Hills, for water conservation programs. The incentive program allows conservation projects within all MWD member agencies that include residential turf removal, low flow toilet distribution and replacement, direct-installation of clothes washers and residential water audits. MWD incentives have similarly allowed member districts to implement commercial conservation projects, including turf removal, direct installation of high efficiency toilets and multi-stream rotating nozzle distribution (MWD, 2015). MWD has also implemented rebate programs to incentivize the use of water efficient fixtures and equipment for residences, businesses, industry, institutions, and large landscapes in southern California. MWD's rebate programs include SoCalWater$mart that assists customers with installing high-efficiency toilets, clothes washers, plumbing fixtures, HVAC, sprinkler controllers, soil moisture sensors and more (MWD, 2015).

To address required reductions, the City of Beverly Hills has established a conservation goal of reducing water use by 32 percent. In May of 2015 the City passed an emergency water conservation program, which includes water scheduling that allows outdoor watering only two days per week, other outdoor watering restrictions, and possible penalties for users who do not reduce water use by 30 percent. These are the current 2015/2016 restrictions and the proposed project would not have impacts when evaluated under these restrictions. Additionally, rebates are available to residential and commercial costumers through the City for turf removal and installation of high efficiency appliances including toilets, clothes washers and weather-based irrigation controllers. The City of Beverly Hills is requiring new development to comply with its water efficient landscaping ordinance in which all new developments must submit a landscaping design plan, irrigation design plan, grading design plan and a soil management report. These must be approved by the City in order to receive a building permit (Beverly Hills, 2012).

Due to the increase in size of the proposed building in comparison to the existing buildings, the project would increase demand for potable water at the project site. Based on the CalEEMod calculations, the project would use 5,944 gallons per day based on 125 percent of wastewater generated by the project. However, as shown in Table 15, available water supply is projected through 2035. There would be sufficient water supplies available to serve the project from existing entitlements and resources. No new or expanded entitlements would be needed to serve the proposed project. The proposed project would not result in a substantial physical

deterioration of public water facilities. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

f, g) **Less than Significant Impact.** State law requires a 50-percent diversion of solid waste from landfills. The City of Beverly Hills has achieved this diversion through recycling and collection of green waste, and has diverted at least 57 percent of its solid waste since 2001 and achieved a waste diversion rate of 78 percent in 2011 (Beverly Hills, 2005).

The City of Beverly Hills Public Works Department, Solid Waste Division is responsible for solid waste collection in the City of Beverly Hills. The City contracts with Recology Los Angeles for the removal of waste from residences and commercial businesses. The disposal of solid waste occurs at one of three designated landfills: Chiquita Canyon Landfill, Sunshine Canyon Landfill and the Calabasas Sanitary Landfill. It is estimated that Chiquita, Sunshine Canyon and Calabasas Sanitary landfills have a remaining capacity of approximately 135 million cubic yards (CY), taking into account reduction estimates for usage that has occurred since the date of remaining capacity was documented on the Solid Waste Information System website. Together, these three landfills are permitted to receive 21,600 tons/day. The Chiquita Canyon Landfill is anticipated to operate through 2019, while the Calabasas Sanitary Landfill is anticipated to operate through 2025 and the Sunshine Canyon Landfill is anticipated to operate through 2037.

The proposed project has two components (construction and operation) that would result in the generation of solid waste. Construction of the proposed project would involve site preparation activities (e.g. building) that would generate waste materials. During construction, the handling of all debris and waste would be subject to the City's and Stat's (AB 939) requirements for salvaging, recycling, and reuse of materials from construction activity on the project site. Due to the reduction in waste the proposed project would not result in an increase in solid waste beyond the capacity of the three designated landfills. This impact would be less than significant, since the incremental increase in solid waste would be within the permitted capacities.

Based on SCAG's Employment Density Study, an estimated 84 employees would occupy the proposed 31,702-square foot commercial building (SCAG, 2001). As shown in Table 16, assuming 84 employees, operation of the project would generate an estimated 161 tons of solid waste per year. With a diversion rate of 57 percent, which the City has been achieving over the past decade, the proposed project would generate 91.8 tons per year of solid waste to be disposed of at area landfills. Given the remaining capacity of the three area landfills of 135 million CY, and the daily permitted throughput of 21,600 tons per day, the proposed project represents 0.001 percent of the daily permitted throughput. Continued compliance with solid waste diversion requirements and the implementation of standard building regulations would be sufficient to address impacts related to solid waste generation. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

**Table 16**
**Estimated Solid Waste Generation**

| Land Use | Employees | Daily Generation Rate (lb/employee/day) | Total (lbs/day) | Total (tons/year) | Solid Waste Diverted (tons/year) | Solid Waste Disposed in Landfills (tons/year) |
|---|---|---|---|---|---|---|
| Commercial | 84 | 10.53 | 885 | 161 | 91.8 | 69.2 |

*Note: lbs = pounds*
*Source: CalRecycle Commercial Sector Solid Waste Generation and Disposal Rates: http://www.calrecycle.ca.gov/wastechar/wastegenrates/commercial.htm*

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —** | | | | |
| a) Does the Project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☒ | ☐ | ☐ | ☐ |
| b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☒ | ☐ | ☐ | ☐ |
| c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

a) **Potentially Significant Impact.** As described in the sections above, the proposed project would not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. *Biological Condition 1 – Avoid Bird Nesting Season or Conduct a Nesting Bird Survey and Provide Buffers* would be applied to the proposed project to minimize impacts to migratory bird species during vegetation removal and initial ground disturbance, and impacts would be reduced to less than significant. However, the project would remove a historically significant building and impacts would be potentially significant. Cumulative impacts relating to cultural resources will be further analyzed in an EIR.

b) **Potentially Significant Impact.** As described in the discussion of environmental checklist Sections I through XVII, the proposed project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues, except cultural resources and transportation/traffic. Therefore, with exception of cultural resources and transportation/traffic, the project's contribution to cumulative impacts would not be cumulatively considerable.

The nearest pending development project is 9212 Olympic Boulevard, which involves a Development Plan Review and Conditional Use Permit to construct a 3-story office building in the C-3T-2 zone. Metro is also adding rail service to the area through the extension of the Purple Line from its current terminus at Wilshire Boulevard and Western Avenue to Wilshire at the Veterans Administration Hospital in West Los Angeles. Cumulative impacts relating to cultural resources and transportation/traffic will be further analyzed in an EIR.

c) **Less than Significant Impact.** The project may have potentially significant cultural resources effects associated with historical resources, which would not cause substantial adverse direct or indirect effects on human beings. Further analysis of this issue in an EIR is not warranted.

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# Appendix A

*CalEEMod Results*

# 9000 Wilshire Blvd. Commercial Project

**South Coast Air Basin, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 33.75 | 1000sqft | 0.36 | 14,558.00 | 0 |
| Enclosed Parking with Elevator | 91.00 | Space | 0.36 | 14,558.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 11 | | | **Operational Year** | 2018 |
| **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 - Office floors + rooftop = 33,751 sq/ft. Footprint is 14,558sq/ft

Construction Phase - Site prep and gradig would be over 40 days due to subterranean garage. Architecural coating changed to overlap with building for more reasonable timeframe.

Trips and VMT - Traffic study: 50 workers per day with carpooling, construction staff would be 34 vehicles

Demolition - Existing: 9000 Wilshire Blvd 3,825 sf, 9006 Wilshire Blvd. 3,007 sf

Grading - Project site is 0.33 acres

Architectural Coating - No residential. SCAQMD Rule 1113: low VOC paint of 150g/L

Vehicle Trips - Weekday trip rate of 350/33.75 sf = 10.37 and Sat Trip Rate of 78/33.75 = 2.31 and Sunday no estimated traffic. Based on Traffic Study

Area Coating - SCAQMD Rule 1113: low VOC 150 g/L

Water And Wastewater - At 4,755 gal/day * 255 work days/yr is 1,212,525

Solid Waste - 82.6 from CEQA Utilities Section

Construction Off-road Equipment Mitigation - Water 3 times a day per SCAQMD Rule 403 and cover tarp per SCAQMD requirements. Soil stabilizer and ground cover per URBEMIS

Area Mitigation - 150 per SCAQMD regulation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblArchitecturalCoating | EF_Nonresidential_Exterior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Nonresidential_Interior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Residential_Exterior | 100.00 | 0.00 |
| tblArchitecturalCoating | EF_Residential_Interior | 50.00 | 0.00 |
| tblAreaCoating | Area_EF_Nonresidential_Exterior | 250 | 150 |
| tblAreaMitigation | UseLowVOCPaintNonresidentialInteriorValue | 250 | 150 |
| tblConstructionPhase | NumDays | 5.00 | 40.00 |
| tblConstructionPhase | NumDays | 100.00 | 250.00 |
| tblConstructionPhase | NumDays | 10.00 | 30.00 |
| tblConstructionPhase | NumDays | 2.00 | 50.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 45.00 |
| tblConstructionPhase | PhaseEndDate | 8/3/2018 | 1/25/2018 |
| tblConstructionPhase | PhaseEndDate | 6/6/2018 | 6/8/2018 |
| tblConstructionPhase | PhaseEndDate | 7/7/2017 | 6/21/2017 |
| tblConstructionPhase | PhaseStartDate | 6/9/2018 | 12/1/2017 |
| tblConstructionPhase | PhaseStartDate | 6/22/2017 | 6/24/2017 |
| tblConstructionPhase | PhaseStartDate | 6/24/2017 | 6/8/2017 |
| tblGrading | AcresOfGrading | 22.50 | 0.50 |
| tblLandUse | LandUseSquareFeet | 33,750.00 | 14,558.00 |
| tblLandUse | LandUseSquareFeet | 36,400.00 | 14,558.00 |
| tblLandUse | LotAcreage | 0.77 | 0.36 |
| tblLandUse | LotAcreage | 0.82 | 0.36 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2018 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2017 | 0.2856 | 1.6714 | 1.2206 | 1.8100e-003 | 0.0398 | 0.1096 | 0.1494 | 0.0155 | 0.1020 | 0.1175 | 0.0000 | 162.0812 | 162.0812 | 0.0386 | 0.0000 | 162.8913 |
| 2018 | 0.1653 | 0.6741 | 0.5248 | 8.3000e-004 | 8.9200e-003 | 0.0424 | 0.0513 | 2.4000e-003 | 0.0391 | 0.0415 | 0.0000 | 73.5893 | 73.5893 | 0.0191 | 0.0000 | 73.9903 |
| **Total** | **0.4509** | **2.3454** | **1.7453** | **2.6400e-003** | **0.0487** | **0.1520** | **0.2007** | **0.0179** | **0.1411** | **0.1590** | **0.0000** | **235.6705** | **235.6705** | **0.0577** | **0.0000** | **236.8817** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2017 | 0.2856 | 1.6714 | 1.2206 | 1.8100e-003 | 0.0257 | 0.1096 | 0.1352 | 8.6800e-003 | 0.1020 | 0.1106 | 0.0000 | 162.0810 | 162.0810 | 0.0386 | 0.0000 | 162.8912 |
| 2018 | 0.1653 | 0.6741 | 0.5248 | 8.3000e-004 | 8.9200e-003 | 0.0424 | 0.0513 | 2.4000e-003 | 0.0391 | 0.0415 | 0.0000 | 73.5893 | 73.5893 | 0.0191 | 0.0000 | 73.9903 |
| **Total** | **0.4509** | **2.3454** | **1.7453** | **2.6400e-003** | **0.0346** | **0.1520** | **0.1865** | **0.0111** | **0.1411** | **0.1522** | **0.0000** | **235.6703** | **235.6703** | **0.0577** | **0.0000** | **236.8814** |

| | **ROG** | **NOx** | **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** | **29.01** | **0.00** | **7.04** | **38.20** | **0.00** | **4.31** | **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 | 0.1357 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |
| Energy | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 97.1024 | 97.1024 | 4.2400e-003 | 1.0000e-003 | 97.5008 |
| Mobile | 0.1616 | 0.4990 | 1.8827 | 5.0400e-003 | 0.3438 | 7.1100e-003 | 0.3509 | 0.0920 | 6.5500e-003 | 0.0985 | 0.0000 | 377.4294 | 377.4294 | 0.0143 | 0.0000 | 377.7288 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 6.3719 | 0.0000 | 6.3719 | 0.3766 | 0.0000 | 14.2798 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.9031 | 34.0403 | 35.9434 | 0.1970 | 4.9400e-003 | 41.6120 |
| **Total** | **0.2982** | **0.5068** | **1.8908** | **5.0900e-003** | **0.3438** | **7.7100e-003** | **0.3515** | **0.0920** | **7.1500e-003** | **0.0991** | **8.2749** | **508.5752** | **516.8502** | **0.5921** | **5.9400e-003** | **531.1247** |

## 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 | 0.1256 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |
| Energy | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 97.1024 | 97.1024 | 4.2400e-003 | 1.0000e-003 | 97.5008 |
| Mobile | 0.1616 | 0.4990 | 1.8827 | 5.0400e-003 | 0.3438 | 7.1100e-003 | 0.3509 | 0.0920 | 6.5500e-003 | 0.0985 | 0.0000 | 377.4294 | 377.4294 | 0.0143 | 0.0000 | 377.7288 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 6.3719 | 0.0000 | 6.3719 | 0.3766 | 0.0000 | 14.2798 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.9031 | 34.0403 | 35.9434 | 0.1970 | 4.9300e-003 | 41.6090 |
| **Total** | **0.2881** | **0.5068** | **1.8908** | **5.0900e-003** | **0.3438** | **7.7100e-003** | **0.3515** | **0.0920** | **7.1500e-003** | **0.0991** | **8.2749** | **508.5752** | **516.8502** | **0.5921** | **5.9300e-003** | **531.1217** |

| | ROG | NOx | 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** | **3.39** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.01** | **0.17** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2017 | 2/10/2017 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 2/11/2017 | 4/14/2017 | 5 | 45 | |
| 3 | Grading | Grading | 4/15/2017 | 6/23/2017 | 5 | 50 | |
| 4 | Paving | Paving | 6/8/2017 | 6/21/2017 | 5 | 10 | |
| 5 | Building Construction | Building Construction | 6/24/2017 | 6/8/2018 | 5 | 250 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2017 | 1/25/2018 | 5 | 40 | |

**Acres of Grading (Site Preparation Phase): 0.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,674; Non-Residential Outdoor: 14,558 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 174 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 226 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 125 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 31.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 11.00 | 5.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 2.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

## 3.2 Demolition - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 3.3600e-003 | 0.0000 | 3.3600e-003 | 5.1000e-004 | 0.0000 | 5.1000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0181 | 0.1571 | 0.1287 | 1.8000e-004 | | 0.0109 | 0.0109 | | 0.0104 | 0.0104 | 0.0000 | 16.1091 | 16.1091 | 3.1700e-003 | 0.0000 | 16.1757 |
| **Total** | **0.0181** | **0.1571** | **0.1287** | **1.8000e-004** | **3.3600e-003** | **0.0109** | **0.0143** | **5.1000e-004** | **0.0104** | **0.0109** | **0.0000** | **16.1091** | **16.1091** | **3.1700e-003** | **0.0000** | **16.1757** |

## 3.2 Demolition - 2017

### 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 | 2.6000e-004 | 4.1500e-003 | 3.2700e-003 | 1.0000e-005 | 2.7000e-004 | 6.0000e-005 | 3.3000e-004 | 7.0000e-005 | 6.0000e-005 | 1.3000e-004 | 0.0000 | 1.0281 | 1.0281 | 1.0000e-005 | 0.0000 | 1.0282 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.4000e-004 | 8.0000e-004 | 8.2900e-003 | 2.0000e-005 | 1.6500e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4827 | 1.4827 | 8.0000e-005 | 0.0000 | 1.4843 |
| **Total** | **8.0000e-004** | **4.9500e-003** | **0.0116** | **3.0000e-005** | **1.9200e-003** | **7.0000e-005** | **1.9900e-003** | **5.1000e-004** | **7.0000e-005** | **5.8000e-004** | **0.0000** | **2.5107** | **2.5107** | **9.0000e-005** | **0.0000** | **2.5125** |

### 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 | | | | | 1.2500e-003 | 0.0000 | 1.2500e-003 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0181 | 0.1571 | 0.1287 | 1.8000e-004 | | 0.0109 | 0.0109 | | 0.0104 | 0.0104 | 0.0000 | 16.1090 | 16.1090 | 3.1700e-003 | 0.0000 | 16.1757 |
| **Total** | **0.0181** | **0.1571** | **0.1287** | **1.8000e-004** | **1.2500e-003** | **0.0109** | **0.0122** | **1.9000e-004** | **0.0104** | **0.0106** | **0.0000** | **16.1090** | **16.1090** | **3.1700e-003** | **0.0000** | **16.1757** |

## 3.2 Demolition - 2017

**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 | 2.6000e-004 | 4.1500e-003 | 3.2700e-003 | 1.0000e-005 | 2.7000e-004 | 6.0000e-005 | 3.3000e-004 | 7.0000e-005 | 6.0000e-005 | 1.3000e-004 | 0.0000 | 1.0281 | 1.0281 | 1.0000e-005 | 0.0000 | 1.0282 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.4000e-004 | 8.0000e-004 | 8.2900e-003 | 2.0000e-005 | 1.6500e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4827 | 1.4827 | 8.0000e-005 | 0.0000 | 1.4843 |
| **Total** | **8.0000e-004** | **4.9500e-003** | **0.0116** | **3.0000e-005** | **1.9200e-003** | **7.0000e-005** | **1.9900e-003** | **5.1000e-004** | **7.0000e-005** | **5.8000e-004** | **0.0000** | **2.5107** | **2.5107** | **9.0000e-005** | **0.0000** | **2.5125** |

## 3.3 Site Preparation - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.7000e-004 | 0.0000 | 2.7000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0286 | 0.2854 | 0.1627 | 2.1000e-004 | | 0.0173 | 0.0173 | | 0.0160 | 0.0160 | 0.0000 | 19.5108 | 19.5108 | 5.9800e-003 | 0.0000 | 19.6364 |
| **Total** | **0.0286** | **0.2854** | **0.1627** | **2.1000e-004** | **2.7000e-004** | **0.0173** | **0.0176** | **3.0000e-005** | **0.0160** | **0.0160** | **0.0000** | **19.5108** | **19.5108** | **5.9800e-003** | **0.0000** | **19.6364** |

## 3.3 Site Preparation - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-004 | 6.0000e-004 | 6.2200e-003 | 2.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.1120 | 1.1120 | 6.0000e-005 | 0.0000 | 1.1132 |
| **Total** | **4.0000e-004** | **6.0000e-004** | **6.2200e-003** | **2.0000e-005** | **1.2300e-003** | **1.0000e-005** | **1.2400e-003** | **3.3000e-004** | **1.0000e-005** | **3.4000e-004** | **0.0000** | **1.1120** | **1.1120** | **6.0000e-005** | **0.0000** | **1.1132** |

### 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 | | | | | 1.0000e-004 | 0.0000 | 1.0000e-004 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0286 | 0.2854 | 0.1627 | 2.1000e-004 | | 0.0173 | 0.0173 | | 0.0160 | 0.0160 | 0.0000 | 19.5108 | 19.5108 | 5.9800e-003 | 0.0000 | 19.6363 |
| **Total** | **0.0286** | **0.2854** | **0.1627** | **2.1000e-004** | **1.0000e-004** | **0.0173** | **0.0174** | **1.0000e-005** | **0.0160** | **0.0160** | **0.0000** | **19.5108** | **19.5108** | **5.9800e-003** | **0.0000** | **19.6363** |

## 3.3 Site Preparation - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-004 | 6.0000e-004 | 6.2200e-003 | 2.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.1120 | 1.1120 | 6.0000e-005 | 0.0000 | 1.1132 |
| **Total** | **4.0000e-004** | **6.0000e-004** | **6.2200e-003** | **2.0000e-005** | **1.2300e-003** | **1.0000e-005** | **1.2400e-003** | **3.3000e-004** | **1.0000e-005** | **3.4000e-004** | **0.0000** | **1.1120** | **1.1120** | **6.0000e-005** | **0.0000** | **1.1132** |

## 3.4 Grading - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0188 | 0.0000 | 0.0188 | 0.0103 | 0.0000 | 0.0103 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0301 | 0.2619 | 0.2146 | 3.0000e-004 | | 0.0182 | 0.0182 | | 0.0173 | 0.0173 | 0.0000 | 26.8484 | 26.8484 | 5.2900e-003 | 0.0000 | 26.9595 |
| **Total** | **0.0301** | **0.2619** | **0.2146** | **3.0000e-004** | **0.0188** | **0.0182** | **0.0370** | **0.0103** | **0.0173** | **0.0277** | **0.0000** | **26.8484** | **26.8484** | **5.2900e-003** | **0.0000** | **26.9595** |

## 3.4 Grading - 2017

### 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 | 9.0000e-004 | 1.3300e-003 | 0.0138 | 3.0000e-005 | 2.7400e-003 | 2.0000e-005 | 2.7700e-003 | 7.3000e-004 | 2.0000e-005 | 7.5000e-004 | 0.0000 | 2.4711 | 2.4711 | 1.3000e-004 | 0.0000 | 2.4738 |
| **Total** | **9.0000e-004** | **1.3300e-003** | **0.0138** | **3.0000e-005** | **2.7400e-003** | **2.0000e-005** | **2.7700e-003** | **7.3000e-004** | **2.0000e-005** | **7.5000e-004** | **0.0000** | **2.4711** | **2.4711** | **1.3000e-004** | **0.0000** | **2.4738** |

### 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 | | | | | 6.9700e-003 | 0.0000 | 6.9700e-003 | 3.8300e-003 | 0.0000 | 3.8300e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0301 | 0.2619 | 0.2146 | 3.0000e-004 | | 0.0182 | 0.0182 | | 0.0173 | 0.0173 | 0.0000 | 26.8484 | 26.8484 | 5.2900e-003 | 0.0000 | 26.9595 |
| **Total** | **0.0301** | **0.2619** | **0.2146** | **3.0000e-004** | **6.9700e-003** | **0.0182** | **0.0251** | **3.8300e-003** | **0.0173** | **0.0212** | **0.0000** | **26.8484** | **26.8484** | **5.2900e-003** | **0.0000** | **26.9595** |

## 3.4 Grading - 2017

**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 | 9.0000e-004 | 1.3300e-003 | 0.0138 | 3.0000e-005 | 2.7400e-003 | 2.0000e-005 | 2.7700e-003 | 7.3000e-004 | 2.0000e-005 | 7.5000e-004 | 0.0000 | 2.4711 | 2.4711 | 1.3000e-004 | 0.0000 | 2.4738 |
| **Total** | **9.0000e-004** | **1.3300e-003** | **0.0138** | **3.0000e-005** | **2.7400e-003** | **2.0000e-005** | **2.7700e-003** | **7.3000e-004** | **2.0000e-005** | **7.5000e-004** | **0.0000** | **2.4711** | **2.4711** | **1.3000e-004** | **0.0000** | **2.4738** |

## 3.5 Paving - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 5.2000e-003 | 0.0492 | 0.0362 | 6.0000e-005 | | 3.0100e-003 | 3.0100e-003 | | 2.7900e-003 | 2.7900e-003 | 0.0000 | 4.8486 | 4.8486 | 1.3500e-003 | 0.0000 | 4.8769 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **5.2000e-003** | **0.0492** | **0.0362** | **6.0000e-005** | | **3.0100e-003** | **3.0100e-003** | | **2.7900e-003** | **2.7900e-003** | **0.0000** | **4.8486** | **4.8486** | **1.3500e-003** | **0.0000** | **4.8769** |

## 3.5 Paving - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.2000e-004 | 4.8000e-004 | 4.9700e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 1.0000e-003 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8896 | 0.8896 | 5.0000e-005 | 0.0000 | 0.8906 |
| **Total** | **3.2000e-004** | **4.8000e-004** | **4.9700e-003** | **1.0000e-005** | **9.9000e-004** | **1.0000e-005** | **1.0000e-003** | **2.6000e-004** | **1.0000e-005** | **2.7000e-004** | **0.0000** | **0.8896** | **0.8896** | **5.0000e-005** | **0.0000** | **0.8906** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 5.2000e-003 | 0.0492 | 0.0362 | 6.0000e-005 | | 3.0100e-003 | 3.0100e-003 | | 2.7900e-003 | 2.7900e-003 | 0.0000 | 4.8486 | 4.8486 | 1.3500e-003 | 0.0000 | 4.8769 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **5.2000e-003** | **0.0492** | **0.0362** | **6.0000e-005** | | **3.0100e-003** | **3.0100e-003** | | **2.7900e-003** | **2.7900e-003** | **0.0000** | **4.8486** | **4.8486** | **1.3500e-003** | **0.0000** | **4.8769** |

## 3.5 Paving - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.2000e-004 | 4.8000e-004 | 4.9700e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 1.0000e-003 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8896 | 0.8896 | 5.0000e-005 | 0.0000 | 0.8906 |
| **Total** | **3.2000e-004** | **4.8000e-004** | **4.9700e-003** | **1.0000e-005** | **9.9000e-004** | **1.0000e-005** | **1.0000e-003** | **2.6000e-004** | **1.0000e-005** | **2.7000e-004** | **0.0000** | **0.8896** | **0.8896** | **5.0000e-005** | **0.0000** | **0.8906** |

## 3.6 Building Construction - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0860 | 0.8555 | 0.5427 | 7.6000e-004 | | 0.0577 | 0.0577 | | 0.0531 | 0.0531 | 0.0000 | 71.0039 | 71.0039 | 0.0218 | 0.0000 | 71.4607 |
| **Total** | **0.0860** | **0.8555** | **0.5427** | **7.6000e-004** | | **0.0577** | **0.0577** | | **0.0531** | **0.0531** | **0.0000** | **71.0039** | **71.0039** | **0.0218** | **0.0000** | **71.4607** |

## 3.6 Building Construction - 2017

### 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 | 2.7500e-003 | 0.0279 | 0.0373 | 7.0000e-005 | 2.0800e-003 | 4.3000e-004 | 2.5000e-003 | 5.9000e-004 | 3.9000e-004 | 9.9000e-004 | 0.0000 | 6.5494 | 6.5494 | 5.0000e-005 | 0.0000 | 6.5504 |
| Worker | 2.6700e-003 | 3.9500e-003 | 0.0410 | 1.0000e-004 | 8.1500e-003 | 7.0000e-005 | 8.2100e-003 | 2.1600e-003 | 6.0000e-005 | 2.2300e-003 | 0.0000 | 7.3391 | 7.3391 | 3.8000e-004 | 0.0000 | 7.3471 |
| **Total** | **5.4200e-003** | **0.0318** | **0.0783** | **1.7000e-004** | **0.0102** | **5.0000e-004** | **0.0107** | **2.7500e-003** | **4.5000e-004** | **3.2200e-003** | **0.0000** | **13.8885** | **13.8885** | **4.3000e-004** | **0.0000** | **13.8975** |

### 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 | 0.0860 | 0.8555 | 0.5427 | 7.6000e-004 | | 0.0577 | 0.0577 | | 0.0531 | 0.0531 | 0.0000 | 71.0038 | 71.0038 | 0.0218 | 0.0000 | 71.4606 |
| **Total** | **0.0860** | **0.8555** | **0.5427** | **7.6000e-004** | | **0.0577** | **0.0577** | | **0.0531** | **0.0531** | **0.0000** | **71.0038** | **71.0038** | **0.0218** | **0.0000** | **71.4606** |

## 3.6 Building Construction - 2017

**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 | 2.7500e-003 | 0.0279 | 0.0373 | 7.0000e-005 | 2.0800e-003 | 4.3000e-004 | 2.5000e-003 | 5.9000e-004 | 3.9000e-004 | 9.9000e-004 | 0.0000 | 6.5494 | 6.5494 | 5.0000e-005 | 0.0000 | 6.5504 |
| Worker | 2.6700e-003 | 3.9500e-003 | 0.0410 | 1.0000e-004 | 8.1500e-003 | 7.0000e-005 | 8.2100e-003 | 2.1600e-003 | 6.0000e-005 | 2.2300e-003 | 0.0000 | 7.3391 | 7.3391 | 3.8000e-004 | 0.0000 | 7.3471 |
| **Total** | **5.4200e-003** | **0.0318** | **0.0783** | **1.7000e-004** | **0.0102** | **5.0000e-004** | **0.0107** | **2.7500e-003** | **4.5000e-004** | **3.2200e-003** | **0.0000** | **13.8885** | **13.8885** | **4.3000e-004** | **0.0000** | **13.8975** |

## 3.6 Building Construction - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0620 | 0.6301 | 0.4441 | 6.5000e-004 | | 0.0406 | 0.0406 | | 0.0373 | 0.0373 | 0.0000 | 59.4789 | 59.4789 | 0.0185 | 0.0000 | 59.8678 |
| **Total** | **0.0620** | **0.6301** | **0.4441** | **6.5000e-004** | | **0.0406** | **0.0406** | | **0.0373** | **0.0373** | **0.0000** | **59.4789** | **59.4789** | **0.0185** | **0.0000** | **59.8678** |

## 3.6 Building Construction - 2018

### 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 | 2.1900e-003 | 0.0218 | 0.0304 | 6.0000e-005 | 1.7700e-003 | 3.4000e-004 | 2.1100e-003 | 5.1000e-004 | 3.1000e-004 | 8.2000e-004 | 0.0000 | 5.4855 | 5.4855 | 4.0000e-005 | 0.0000 | 5.4863 |
| Worker | 2.0400e-003 | 3.0500e-003 | 0.0317 | 9.0000e-005 | 6.9400e-003 | 6.0000e-005 | 6.9900e-003 | 1.8400e-003 | 5.0000e-005 | 1.8900e-003 | 0.0000 | 6.0185 | 6.0185 | 3.0000e-004 | 0.0000 | 6.0248 |
| **Total** | **4.2300e-003** | **0.0249** | **0.0621** | **1.5000e-004** | **8.7100e-003** | **4.0000e-004** | **9.1000e-003** | **2.3500e-003** | **3.6000e-004** | **2.7100e-003** | **0.0000** | **11.5040** | **11.5040** | **3.4000e-004** | **0.0000** | **11.5111** |

### 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 | 0.0620 | 0.6301 | 0.4441 | 6.5000e-004 | | 0.0406 | 0.0406 | | 0.0373 | 0.0373 | 0.0000 | 59.4789 | 59.4789 | 0.0185 | 0.0000 | 59.8677 |
| **Total** | **0.0620** | **0.6301** | **0.4441** | **6.5000e-004** | | **0.0406** | **0.0406** | | **0.0373** | **0.0373** | **0.0000** | **59.4789** | **59.4789** | **0.0185** | **0.0000** | **59.8677** |

## 3.6 Building Construction - 2018

**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 | 2.1900e-003 | 0.0218 | 0.0304 | 6.0000e-005 | 1.7700e-003 | 3.4000e-004 | 2.1100e-003 | 5.1000e-004 | 3.1000e-004 | 8.2000e-004 | 0.0000 | 5.4855 | 5.4855 | 4.0000e-005 | 0.0000 | 5.4863 |
| Worker | 2.0400e-003 | 3.0500e-003 | 0.0317 | 9.0000e-005 | 6.9400e-003 | 6.0000e-005 | 6.9900e-003 | 1.8400e-003 | 5.0000e-005 | 1.8900e-003 | 0.0000 | 6.0185 | 6.0185 | 3.0000e-004 | 0.0000 | 6.0248 |
| **Total** | **4.2300e-003** | **0.0249** | **0.0621** | **1.5000e-004** | **8.7100e-003** | **4.0000e-004** | **9.1000e-003** | **2.3500e-003** | **3.6000e-004** | **2.7100e-003** | **0.0000** | **11.5040** | **11.5040** | **3.4000e-004** | **0.0000** | **11.5111** |

## 3.7 Architectural Coating - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.1063 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.4900e-003 | 0.0229 | 0.0196 | 3.0000e-005 | | 1.8200e-003 | 1.8200e-003 | | 1.8200e-003 | 1.8200e-003 | 0.0000 | 2.6809 | 2.6809 | 2.8000e-004 | 0.0000 | 2.6869 |
| **Total** | **0.1098** | **0.0229** | **0.0196** | **3.0000e-005** | | **1.8200e-003** | **1.8200e-003** | | **1.8200e-003** | **1.8200e-003** | **0.0000** | **2.6809** | **2.6809** | **2.8000e-004** | **0.0000** | **2.6869** |

## 3.7 Architectural Coating - 2017

### 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 | 8.0000e-005 | 1.1000e-004 | 1.1600e-003 | 0.0000 | 2.3000e-004 | 0.0000 | 2.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2076 | 0.2076 | 1.0000e-005 | 0.0000 | 0.2078 |
| **Total** | **8.0000e-005** | **1.1000e-004** | **1.1600e-003** | **0.0000** | **2.3000e-004** | **0.0000** | **2.3000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2076** | **0.2076** | **1.0000e-005** | **0.0000** | **0.2078** |

### 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 | 0.1063 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.4900e-003 | 0.0229 | 0.0196 | 3.0000e-005 | | 1.8200e-003 | 1.8200e-003 | | 1.8200e-003 | 1.8200e-003 | 0.0000 | 2.6809 | 2.6809 | 2.8000e-004 | 0.0000 | 2.6869 |
| **Total** | **0.1098** | **0.0229** | **0.0196** | **3.0000e-005** | | **1.8200e-003** | **1.8200e-003** | | **1.8200e-003** | **1.8200e-003** | **0.0000** | **2.6809** | **2.6809** | **2.8000e-004** | **0.0000** | **2.6869** |

## 3.7 Architectural Coating - 2017

**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 | 8.0000e-005 | 1.1000e-004 | 1.1600e-003 | 0.0000 | 2.3000e-004 | 0.0000 | 2.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2076 | 0.2076 | 1.0000e-005 | 0.0000 | 0.2078 |
| **Total** | **8.0000e-005** | **1.1000e-004** | **1.1600e-003** | **0.0000** | **2.3000e-004** | **0.0000** | **2.3000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2076** | **0.2076** | **1.0000e-005** | **0.0000** | **0.2078** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.0962 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.8400e-003 | 0.0191 | 0.0176 | 3.0000e-005 | | 1.4300e-003 | 1.4300e-003 | | 1.4300e-003 | 1.4300e-003 | 0.0000 | 2.4256 | 2.4256 | 2.3000e-004 | 0.0000 | 2.4304 |
| **Total** | **0.0990** | **0.0191** | **0.0176** | **3.0000e-005** | | **1.4300e-003** | **1.4300e-003** | | **1.4300e-003** | **1.4300e-003** | **0.0000** | **2.4256** | **2.4256** | **2.3000e-004** | **0.0000** | **2.4304** |

## 3.7 Architectural Coating - 2018

### 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 | 6.0000e-005 | 9.0000e-005 | 9.5000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 2.1000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1808 | 0.1808 | 1.0000e-005 | 0.0000 | 0.1810 |
| **Total** | **6.0000e-005** | **9.0000e-005** | **9.5000e-004** | **0.0000** | **2.1000e-004** | **0.0000** | **2.1000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.1808** | **0.1808** | **1.0000e-005** | **0.0000** | **0.1810** |

### 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 | 0.0962 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.8400e-003 | 0.0191 | 0.0176 | 3.0000e-005 | | 1.4300e-003 | 1.4300e-003 | | 1.4300e-003 | 1.4300e-003 | 0.0000 | 2.4256 | 2.4256 | 2.3000e-004 | 0.0000 | 2.4304 |
| **Total** | **0.0990** | **0.0191** | **0.0176** | **3.0000e-005** | | **1.4300e-003** | **1.4300e-003** | | **1.4300e-003** | **1.4300e-003** | **0.0000** | **2.4256** | **2.4256** | **2.3000e-004** | **0.0000** | **2.4304** |

## 3.7 Architectural Coating - 2018

**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 | 6.0000e-005 | 9.0000e-005 | 9.5000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 2.1000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1808 | 0.1808 | 1.0000e-005 | 0.0000 | 0.1810 |
| **Total** | **6.0000e-005** | **9.0000e-005** | **9.5000e-004** | **0.0000** | **2.1000e-004** | **0.0000** | **2.1000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.1808** | **0.1808** | **1.0000e-005** | **0.0000** | **0.1810** |

# 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 | 0.1616 | 0.4990 | 1.8827 | 5.0400e-003 | 0.3438 | 7.1100e-003 | 0.3509 | 0.0920 | 6.5500e-003 | 0.0985 | 0.0000 | 377.4294 | 377.4294 | 0.0143 | 0.0000 | 377.7288 |
| Unmitigated | 0.1616 | 0.4990 | 1.8827 | 5.0400e-003 | 0.3438 | 7.1100e-003 | 0.3509 | 0.0920 | 6.5500e-003 | 0.0985 | 0.0000 | 377.4294 | 377.4294 | 0.0143 | 0.0000 | 377.7288 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |
| Total | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |

## 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 |
| Enclosed Parking with Elevator | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.512137 | 0.059943 | 0.180601 | 0.139123 | 0.042256 | 0.006647 | 0.016115 | 0.031670 | 0.001940 | 0.002502 | 0.004362 | 0.000588 | 0.002117 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

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 | 88.6112 | 88.6112 | 4.0700e-003 | 8.4000e-004 | 88.9580 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 88.6112 | 88.6112 | 4.0700e-003 | 8.4000e-004 | 88.9580 |
| NaturalGas Mitigated | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 8.4912 | 8.4912 | 1.6000e-004 | 1.6000e-004 | 8.5429 |
| NaturalGas Unmitigated | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 8.4912 | 8.4912 | 1.6000e-004 | 1.6000e-004 | 8.5429 |

## 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 | | | | | |
| General Office Building | 159119 | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 8.4912 | 8.4912 | 1.6000e-004 | 1.6000e-004 | 8.5429 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **8.6000e-004** | **7.8000e-003** | **6.5500e-003** | **5.0000e-005** | | **5.9000e-004** | **5.9000e-004** | | **5.9000e-004** | **5.9000e-004** | **0.0000** | **8.4912** | **8.4912** | **1.6000e-004** | **1.6000e-004** | **8.5429** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 159119 | 8.6000e-004 | 7.8000e-003 | 6.5500e-003 | 5.0000e-005 | | 5.9000e-004 | 5.9000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 8.4912 | 8.4912 | 1.6000e-004 | 1.6000e-004 | 8.5429 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **8.6000e-004** | **7.8000e-003** | **6.5500e-003** | **5.0000e-005** | | **5.9000e-004** | **5.9000e-004** | | **5.9000e-004** | **5.9000e-004** | **0.0000** | **8.4912** | **8.4912** | **1.6000e-004** | **1.6000e-004** | **8.5429** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Enclosed Parking with Elevator | 98120.9 | 28.0790 | 1.2900e-003 | 2.7000e-004 | 28.1889 |
| General Office Building | 211528 | 60.5322 | 2.7800e-003 | 5.8000e-004 | 60.7691 |
| **Total** | | **88.6112** | **4.0700e-003** | **8.5000e-004** | **88.9580** |

## 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Enclosed Parking with Elevator | 98120.9 | 28.0790 | 1.2900e-003 | 2.7000e-004 | 28.1889 |
| General Office Building | 211528 | 60.5322 | 2.7800e-003 | 5.8000e-004 | 60.7691 |
| **Total** | | **88.6112** | **4.0700e-003** | **8.5000e-004** | **88.9580** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

| | ROG | NOx | CO | SO2 | 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 | 0.1256 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |
| Unmitigated | 0.1357 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0304 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1052 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.5000e-004 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |
| **Total** | **0.1357** | **2.0000e-005** | **1.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.1000e-003** | **3.1000e-003** | **1.0000e-005** | **0.0000** | **3.2700e-003** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0202 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1052 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.5000e-004 | 2.0000e-005 | 1.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.1000e-003 | 3.1000e-003 | 1.0000e-005 | 0.0000 | 3.2700e-003 |
| **Total** | **0.1256** | **2.0000e-005** | **1.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.1000e-003** | **3.1000e-003** | **1.0000e-005** | **0.0000** | **3.2700e-003** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 35.9434 | 0.1970 | 4.9300e-003 | 41.6090 |
| Unmitigated | 35.9434 | 0.1970 | 4.9400e-003 | 41.6120 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Enclosed Parking with Elevator | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 5.99851 / 3.67651 | 35.9434 | 0.1970 | 4.9400e-003 | 41.6120 |
| **Total** | | **35.9434** | **0.1970** | **4.9400e-003** | **41.6120** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Enclosed Parking with Elevator | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 5.99851 / 3.67651 | 35.9434 | 0.1970 | 4.9300e-003 | 41.6090 |
| **Total** | | **35.9434** | **0.1970** | **4.9300e-003** | **41.6090** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 6.3719 | 0.3766 | 0.0000 | 14.2798 |
| Unmitigated | 6.3719 | 0.3766 | 0.0000 | 14.2798 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 31.39 | 6.3719 | 0.3766 | 0.0000 | 14.2798 |
| **Total** | | **6.3719** | **0.3766** | **0.0000** | **14.2798** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 31.39 | 6.3719 | 0.3766 | 0.0000 | 14.2798 |
| **Total** | | **6.3719** | **0.3766** | **0.0000** | **14.2798** |

## 9.0 Operational Offroad

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

## 10.0 Vegetation

# 9000 Wilshire Blvd. Commercial Project

**South Coast Air Basin, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 33.75 | 1000sqft | 0.36 | 14,558.00 | 0 |
| Enclosed Parking with Elevator | 91.00 | Space | 0.36 | 14,558.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 11 | | | **Operational Year** | 2018 |
| **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 - Office floors + rooftop = 33,751 sq/ft. Footprint is 14,558sq/ft

Construction Phase - Site prep and gradig would be over 40 days due to subterranean garage. Architecural coating changed to overlap with building for more reasonable timeframe.

Trips and VMT - Traffic study: 50 workers per day with carpooling, construction staff would be 34 vehicles

Demolition - Existing: 9000 Wilshire Blvd 3,825 sf, 9006 Wilshire Blvd. 3,007 sf

Grading - Project site is 0.33 acres

Architectural Coating - No residential. SCAQMD Rule 1113: low VOC paint of 150g/L

Vehicle Trips - Weekday trip rate of 350/33.75 sf = 10.37 and Sat Trip Rate of 78/33.75 = 2.31 and Sunday no estimated traffic. Based on Traffic Study

Area Coating - SCAQMD Rule 1113: low VOC 150 g/L

Water And Wastewater - At 4,755 gal/day * 255 work days/yr is 1,212,525

Solid Waste - 82.6 from CEQA Utilities Section

Construction Off-road Equipment Mitigation - Water 3 times a day per SCAQMD Rule 403 and cover tarp per SCAQMD requirements. Soil stabilizer and ground cover per URBEMIS

Area Mitigation - 150 per SCAQMD regulation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblArchitecturalCoating | EF_Nonresidential_Exterior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Nonresidential_Interior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Residential_Exterior | 100.00 | 0.00 |
| tblArchitecturalCoating | EF_Residential_Interior | 50.00 | 0.00 |
| tblAreaCoating | Area_EF_Nonresidential_Exterior | 250 | 150 |
| tblAreaMitigation | UseLowVOCPaintNonresidentialInteriorValue | 250 | 150 |
| tblConstructionPhase | NumDays | 5.00 | 40.00 |
| tblConstructionPhase | NumDays | 100.00 | 250.00 |
| tblConstructionPhase | NumDays | 10.00 | 30.00 |
| tblConstructionPhase | NumDays | 2.00 | 50.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 45.00 |
| tblConstructionPhase | PhaseEndDate | 8/3/2018 | 1/25/2018 |
| tblConstructionPhase | PhaseEndDate | 6/6/2018 | 6/8/2018 |
| tblConstructionPhase | PhaseEndDate | 7/7/2017 | 6/21/2017 |
| tblConstructionPhase | PhaseStartDate | 6/9/2018 | 12/1/2017 |
| tblConstructionPhase | PhaseStartDate | 6/22/2017 | 6/24/2017 |
| tblConstructionPhase | PhaseStartDate | 6/24/2017 | 6/8/2017 |
| tblGrading | AcresOfGrading | 22.50 | 0.50 |
| tblLandUse | LandUseSquareFeet | 33,750.00 | 14,558.00 |
| tblLandUse | LandUseSquareFeet | 36,400.00 | 14,558.00 |
| tblLandUse | LotAcreage | 0.77 | 0.36 |
| tblLandUse | LotAcreage | 0.82 | 0.36 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2018 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2017 | 11.8147 | 20.4421 | 17.4694 | 0.0271 | 1.0657 | 1.3309 | 2.3966 | 0.4968 | 1.2525 | 1.7493 | 0.0000 | 2,573.0859 | 2,573.0859 | 0.5459 | 0.0000 | 2,584.5487 |
| 2018 | 11.5785 | 13.3821 | 10.7184 | 0.0172 | 0.1766 | 0.8631 | 1.0397 | 0.0474 | 0.8061 | 0.8536 | 0.0000 | 1,670.4243 | 1,670.4243 | 0.3893 | 0.0000 | 1,678.5988 |
| **Total** | **23.3932** | **33.8241** | **28.1878** | **0.0443** | **1.2423** | **2.1940** | **3.4363** | **0.5442** | **2.0586** | **2.6028** | **0.0000** | **4,243.5102** | **4,243.5102** | **0.9351** | **0.0000** | **4,263.1475** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2017 | 11.8147 | 20.4421 | 17.4694 | 0.0271 | 0.5919 | 1.3309 | 1.9228 | 0.2363 | 1.2525 | 1.4888 | 0.0000 | 2,573.0859 | 2,573.0859 | 0.5459 | 0.0000 | 2,584.5487 |
| 2018 | 11.5785 | 13.3821 | 10.7184 | 0.0172 | 0.1766 | 0.8631 | 1.0397 | 0.0474 | 0.8061 | 0.8536 | 0.0000 | 1,670.4243 | 1,670.4243 | 0.3893 | 0.0000 | 1,678.5988 |
| **Total** | **23.3932** | **33.8241** | **28.1878** | **0.0443** | **0.7684** | **2.1940** | **2.9624** | **0.2838** | **2.0586** | **2.3423** | **0.0000** | **4,243.5102** | **4,243.5102** | **0.9351** | **0.0000** | **4,263.1475** |

| | **ROG** | **NOx** | **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** | **38.14** | **0.00** | **13.79** | **47.86** | **0.00** | **10.01** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.7441 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Energy | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Mobile | 1.1958 | 3.3764 | 13.7258 | 0.0380 | 2.5387 | 0.0515 | 2.5902 | 0.6783 | 0.0475 | 0.7258 | | 3,134.5300 | 3,134.5300 | 0.1140 | | 3,136.9248 |
| **Total** | **1.9446** | **3.4193** | **13.7746** | **0.0383** | **2.5387** | **0.0548** | **2.5935** | **0.6783** | **0.0508** | **0.7291** | | **3,185.8447** | **3,185.8447** | **0.1151** | **9.4000e-004** | **3,188.5531** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.6887 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Energy | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Mobile | 1.1958 | 3.3764 | 13.7258 | 0.0380 | 2.5387 | 0.0515 | 2.5902 | 0.6783 | 0.0475 | 0.7258 | | 3,134.5300 | 3,134.5300 | 0.1140 | | 3,136.9248 |
| **Total** | **1.8891** | **3.4193** | **13.7746** | **0.0383** | **2.5387** | **0.0548** | **2.5935** | **0.6783** | **0.0508** | **0.7291** | | **3,185.8447** | **3,185.8447** | **0.1151** | **9.4000e-004** | **3,188.5531** |

| | ROG | NOx | 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** | **2.85** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2017 | 2/10/2017 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 2/11/2017 | 4/14/2017 | 5 | 45 | |
| 3 | Grading | Grading | 4/15/2017 | 6/23/2017 | 5 | 50 | |
| 4 | Paving | Paving | 6/8/2017 | 6/21/2017 | 5 | 10 | |
| 5 | Building Construction | Building Construction | 6/24/2017 | 6/8/2018 | 5 | 250 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2017 | 1/25/2018 | 5 | 40 | |

**Acres of Grading (Site Preparation Phase): 0.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,674; Non-Residential Outdoor: 14,558 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 174 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 226 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 125 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 31.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 11.00 | 5.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 2.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

## 3.2 Demolition - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2242 | 0.0000 | 0.2242 | 0.0339 | 0.0000 | 0.0339 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.2242** | **0.7266** | **0.9508** | **0.0339** | **0.6930** | **0.7269** | | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.2 Demolition - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0168 | 0.2625 | 0.1929 | 7.6000e-004 | 0.0180 | 4.0500e-003 | 0.0221 | 4.9300e-003 | 3.7200e-003 | 8.6500e-003 | | 75.6252 | 75.6252 | 5.4000e-004 | | 75.6366 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0374 | 0.0470 | 0.5870 | 1.4200e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 114.4058 | 114.4058 | 5.6300e-003 | | 114.5239 |
| **Total** | **0.0543** | **0.3095** | **0.7799** | **2.1800e-003** | **0.1298** | **4.9500e-003** | **0.1347** | **0.0346** | **4.5500e-003** | **0.0391** | | **190.0310** | **190.0310** | **6.1700e-003** | | **190.1605** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0831 | 0.0000 | 0.0831 | 0.0126 | 0.0000 | 0.0126 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | 0.0000 | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.0831** | **0.7266** | **0.8097** | **0.0126** | **0.6930** | **0.7056** | **0.0000** | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.2 Demolition - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0168 | 0.2625 | 0.1929 | 7.6000e-004 | 0.0180 | 4.0500e-003 | 0.0221 | 4.9300e-003 | 3.7200e-003 | 8.6500e-003 | | 75.6252 | 75.6252 | 5.4000e-004 | | 75.6366 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0374 | 0.0470 | 0.5870 | 1.4200e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 114.4058 | 114.4058 | 5.6300e-003 | | 114.5239 |
| **Total** | **0.0543** | **0.3095** | **0.7799** | **2.1800e-003** | **0.1298** | **4.9500e-003** | **0.1347** | **0.0346** | **4.5500e-003** | **0.0391** | | **190.0310** | **190.0310** | **6.1700e-003** | | **190.1605** |

## 3.3 Site Preparation - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0118 | 0.0000 | 0.0118 | 1.2700e-003 | 0.0000 | 1.2700e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2694 | 12.6852 | 7.2319 | 9.3300e-003 | | 0.7705 | 0.7705 | | 0.7089 | 0.7089 | | 955.8663 | 955.8663 | 0.2929 | | 962.0167 |
| **Total** | **1.2694** | **12.6852** | **7.2319** | **9.3300e-003** | **0.0118** | **0.7705** | **0.7823** | **1.2700e-003** | **0.7089** | **0.7101** | | **955.8663** | **955.8663** | **0.2929** | | **962.0167** |

## 3.3 Site Preparation - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0187 | 0.0235 | 0.2935 | 7.1000e-004 | 0.0559 | 4.5000e-004 | 0.0563 | 0.0148 | 4.1000e-004 | 0.0152 | | 57.2029 | 57.2029 | 2.8100e-003 | | 57.2620 |
| **Total** | **0.0187** | **0.0235** | **0.2935** | **7.1000e-004** | **0.0559** | **4.5000e-004** | **0.0563** | **0.0148** | **4.1000e-004** | **0.0152** | | **57.2029** | **57.2029** | **2.8100e-003** | | **57.2620** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 4.3700e-003 | 0.0000 | 4.3700e-003 | 4.7000e-004 | 0.0000 | 4.7000e-004 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2694 | 12.6852 | 7.2319 | 9.3300e-003 | | 0.7705 | 0.7705 | | 0.7089 | 0.7089 | 0.0000 | 955.8663 | 955.8663 | 0.2929 | | 962.0167 |
| **Total** | **1.2694** | **12.6852** | **7.2319** | **9.3300e-003** | **4.3700e-003** | **0.7705** | **0.7749** | **4.7000e-004** | **0.7089** | **0.7093** | **0.0000** | **955.8663** | **955.8663** | **0.2929** | | **962.0167** |

## 3.3 Site Preparation - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0187 | 0.0235 | 0.2935 | 7.1000e-004 | 0.0559 | 4.5000e-004 | 0.0563 | 0.0148 | 4.1000e-004 | 0.0152 | | 57.2029 | 57.2029 | 2.8100e-003 | | 57.2620 |
| **Total** | **0.0187** | **0.0235** | **0.2935** | **7.1000e-004** | **0.0559** | **4.5000e-004** | **0.0563** | **0.0148** | **4.1000e-004** | **0.0152** | | **57.2029** | **57.2029** | **2.8100e-003** | | **57.2620** |

## 3.4 Grading - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7528 | 0.0000 | 0.7528 | 0.4138 | 0.0000 | 0.4138 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.7528** | **0.7266** | **1.4794** | **0.4138** | **0.6930** | **1.1068** | | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.4 Grading - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0374 | 0.0470 | 0.5870 | 1.4200e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 114.4058 | 114.4058 | 5.6300e-003 | | 114.5239 |
| **Total** | **0.0374** | **0.0470** | **0.5870** | **1.4200e-003** | **0.1118** | **9.0000e-004** | **0.1127** | **0.0296** | **8.3000e-004** | **0.0305** | | **114.4058** | **114.4058** | **5.6300e-003** | | **114.5239** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2789 | 0.0000 | 0.2789 | 0.1533 | 0.0000 | 0.1533 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | 0.0000 | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.2789** | **0.7266** | **1.0055** | **0.1533** | **0.6930** | **0.8463** | **0.0000** | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.4 Grading - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0374 | 0.0470 | 0.5870 | 1.4200e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 114.4058 | 114.4058 | 5.6300e-003 | | 114.5239 |
| **Total** | **0.0374** | **0.0470** | **0.5870** | **1.4200e-003** | **0.1118** | **9.0000e-004** | **0.1127** | **0.0296** | **8.3000e-004** | **0.0305** | | **114.4058** | **114.4058** | **5.6300e-003** | | **114.5239** |

## 3.5 Paving - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0406 | 9.8344 | 7.2432 | 0.0111 | | 0.6018 | 0.6018 | | 0.5572 | 0.5572 | | 1,068.9366 | 1,068.9366 | 0.2968 | | 1,075.1698 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0406** | **9.8344** | **7.2432** | **0.0111** | | **0.6018** | **0.6018** | | **0.5572** | **0.5572** | | **1,068.9366** | **1,068.9366** | **0.2968** | | **1,075.1698** |

## 3.5 Paving - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0674 | 0.0846 | 1.0567 | 2.5500e-003 | 0.2012 | 1.6200e-003 | 0.2028 | 0.0534 | 1.4900e-003 | 0.0549 | | 205.9304 | 205.9304 | 0.0101 | | 206.1431 |
| **Total** | **0.0674** | **0.0846** | **1.0567** | **2.5500e-003** | **0.2012** | **1.6200e-003** | **0.2028** | **0.0534** | **1.4900e-003** | **0.0549** | | **205.9304** | **205.9304** | **0.0101** | | **206.1431** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0406 | 9.8344 | 7.2432 | 0.0111 | | 0.6018 | 0.6018 | | 0.5572 | 0.5572 | 0.0000 | 1,068.9366 | 1,068.9366 | 0.2968 | | 1,075.1698 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0406** | **9.8344** | **7.2432** | **0.0111** | | **0.6018** | **0.6018** | | **0.5572** | **0.5572** | **0.0000** | **1,068.9366** | **1,068.9366** | **0.2968** | | **1,075.1698** |

## 3.5 Paving - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0674 | 0.0846 | 1.0567 | 2.5500e-003 | 0.2012 | 1.6200e-003 | 0.2028 | 0.0534 | 1.4900e-003 | 0.0549 | | 205.9304 | 205.9304 | 0.0101 | | 206.1431 |
| **Total** | **0.0674** | **0.0846** | **1.0567** | **2.5500e-003** | **0.2012** | **1.6200e-003** | **0.2028** | **0.0534** | **1.4900e-003** | **0.0549** | | **205.9304** | **205.9304** | **0.0101** | | **206.1431** |

## 3.6 Building Construction - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2740 | 12.6738 | 8.0395 | 0.0113 | | 0.8553 | 0.8553 | | 0.7869 | 0.7869 | | 1,159.5310 | 1,159.5310 | 0.3553 | | 1,166.9919 |
| **Total** | **1.2740** | **12.6738** | **8.0395** | **0.0113** | | **0.8553** | **0.8553** | | **0.7869** | **0.7869** | | **1,159.5310** | **1,159.5310** | **0.3553** | | **1,166.9919** |

## 3.6 Building Construction - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0383 | 0.3954 | 0.4691 | 1.0900e-003 | 0.0313 | 6.2900e-003 | 0.0376 | 8.9000e-003 | 5.7900e-003 | 0.0147 | | 107.3336 | 107.3336 | 7.6000e-004 | | 107.3495 |
| Worker | 0.0412 | 0.0517 | 0.6457 | 1.5600e-003 | 0.1230 | 9.9000e-004 | 0.1239 | 0.0326 | 9.1000e-004 | 0.0335 | | 125.8463 | 125.8463 | 6.1900e-003 | | 125.9763 |
| **Total** | **0.0795** | **0.4471** | **1.1148** | **2.6500e-003** | **0.1542** | **7.2800e-003** | **0.1615** | **0.0415** | **6.7000e-003** | **0.0482** | | **233.1799** | **233.1799** | **6.9500e-003** | | **233.3258** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2740 | 12.6738 | 8.0395 | 0.0113 | | 0.8553 | 0.8553 | | 0.7869 | 0.7869 | 0.0000 | 1,159.5310 | 1,159.5310 | 0.3553 | | 1,166.9919 |
| **Total** | **1.2740** | **12.6738** | **8.0395** | **0.0113** | | **0.8553** | **0.8553** | | **0.7869** | **0.7869** | **0.0000** | **1,159.5310** | **1,159.5310** | **0.3553** | | **1,166.9919** |

## 3.6 Building Construction - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0383 | 0.3954 | 0.4691 | 1.0900e-003 | 0.0313 | 6.2900e-003 | 0.0376 | 8.9000e-003 | 5.7900e-003 | 0.0147 | | 107.3336 | 107.3336 | 7.6000e-004 | | 107.3495 |
| Worker | 0.0412 | 0.0517 | 0.6457 | 1.5600e-003 | 0.1230 | 9.9000e-004 | 0.1239 | 0.0326 | 9.1000e-004 | 0.0335 | | 125.8463 | 125.8463 | 6.1900e-003 | | 125.9763 |
| **Total** | **0.0795** | **0.4471** | **1.1148** | **2.6500e-003** | **0.1542** | **7.2800e-003** | **0.1615** | **0.0415** | **6.7000e-003** | **0.0482** | | **233.1799** | **233.1799** | **6.9500e-003** | | **233.3258** |

## 3.6 Building Construction - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0786 | 10.9578 | 7.7239 | 0.0113 | | 0.7055 | 0.7055 | | 0.6491 | 0.6491 | | 1,140.2487 | 1,140.2487 | 0.3550 | | 1,147.7032 |
| **Total** | **1.0786** | **10.9578** | **7.7239** | **0.0113** | | **0.7055** | **0.7055** | | **0.6491** | **0.6491** | | **1,140.2487** | **1,140.2487** | **0.3550** | | **1,147.7032** |

## 3.6 Building Construction - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0359 | 0.3631 | 0.4469 | 1.0900e-003 | 0.0313 | 5.9300e-003 | 0.0372 | 8.9000e-003 | 5.4600e-003 | 0.0144 | | 105.5337 | 105.5337 | 7.5000e-004 | | 105.5495 |
| Worker | 0.0371 | 0.0469 | 0.5867 | 1.5600e-003 | 0.1230 | 9.6000e-004 | 0.1239 | 0.0326 | 8.9000e-004 | 0.0335 | | 121.1636 | 121.1636 | 5.7500e-003 | | 121.2843 |
| **Total** | **0.0730** | **0.4100** | **1.0336** | **2.6500e-003** | **0.1542** | **6.8900e-003** | **0.1611** | **0.0415** | **6.3500e-003** | **0.0479** | | **226.6973** | **226.6973** | **6.5000e-003** | | **226.8338** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0786 | 10.9578 | 7.7239 | 0.0113 | | 0.7055 | 0.7055 | | 0.6491 | 0.6491 | 0.0000 | 1,140.2487 | 1,140.2487 | 0.3550 | | 1,147.7032 |
| **Total** | **1.0786** | **10.9578** | **7.7239** | **0.0113** | | **0.7055** | **0.7055** | | **0.6491** | **0.6491** | **0.0000** | **1,140.2487** | **1,140.2487** | **0.3550** | | **1,147.7032** |

## 3.6 Building Construction - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0359 | 0.3631 | 0.4469 | 1.0900e-003 | 0.0313 | 5.9300e-003 | 0.0372 | 8.9000e-003 | 5.4600e-003 | 0.0144 | | 105.5337 | 105.5337 | 7.5000e-004 | | 105.5495 |
| Worker | 0.0371 | 0.0469 | 0.5867 | 1.5600e-003 | 0.1230 | 9.6000e-004 | 0.1239 | 0.0326 | 8.9000e-004 | 0.0335 | | 121.1636 | 121.1636 | 5.7500e-003 | | 121.2843 |
| **Total** | **0.0730** | **0.4100** | **1.0336** | **2.6500e-003** | **0.1542** | **6.8900e-003** | **0.1611** | **0.0415** | **6.3500e-003** | **0.0479** | | **226.6973** | **226.6973** | **6.5000e-003** | | **226.8338** |

## 3.7 Architectural Coating - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3323 | 2.1850 | 1.8681 | 2.9700e-003 | | 0.1733 | 0.1733 | | 0.1733 | 0.1733 | | 281.4481 | 281.4481 | 0.0297 | | 282.0721 |
| **Total** | **10.4538** | **2.1850** | **1.8681** | **2.9700e-003** | | **0.1733** | **0.1733** | | **0.1733** | **0.1733** | | **281.4481** | **281.4481** | **0.0297** | | **282.0721** |

## 3.7 Architectural Coating - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.4900e-003 | 9.4000e-003 | 0.1174 | 2.8000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.7000e-004 | 6.0900e-003 | | 22.8812 | 22.8812 | 1.1300e-003 | | 22.9048 |
| **Total** | **7.4900e-003** | **9.4000e-003** | **0.1174** | **2.8000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.7000e-004** | **6.0900e-003** | | **22.8812** | **22.8812** | **1.1300e-003** | | **22.9048** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3323 | 2.1850 | 1.8681 | 2.9700e-003 | | 0.1733 | 0.1733 | | 0.1733 | 0.1733 | 0.0000 | 281.4481 | 281.4481 | 0.0297 | | 282.0721 |
| **Total** | **10.4538** | **2.1850** | **1.8681** | **2.9700e-003** | | **0.1733** | **0.1733** | | **0.1733** | **0.1733** | **0.0000** | **281.4481** | **281.4481** | **0.0297** | | **282.0721** |

## 3.7 Architectural Coating - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.4900e-003 | 9.4000e-003 | 0.1174 | 2.8000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.7000e-004 | 6.0900e-003 | | 22.8812 | 22.8812 | 1.1300e-003 | | 22.9048 |
| **Total** | **7.4900e-003** | **9.4000e-003** | **0.1174** | **2.8000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.7000e-004** | **6.0900e-003** | | **22.8812** | **22.8812** | **1.1300e-003** | | **22.9048** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | | 281.4485 | 281.4485 | 0.0267 | | 282.0102 |
| **Total** | **10.4201** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | | **281.4485** | **281.4485** | **0.0267** | | **282.0102** |

## 3.7 Architectural Coating - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.7500e-003 | 8.5300e-003 | 0.1067 | 2.8000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.6000e-004 | 6.0900e-003 | | 22.0298 | 22.0298 | 1.0400e-003 | | 22.0517 |
| **Total** | **6.7500e-003** | **8.5300e-003** | **0.1067** | **2.8000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.6000e-004** | **6.0900e-003** | | **22.0298** | **22.0298** | **1.0400e-003** | | **22.0517** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | 0.0000 | 281.4485 | 281.4485 | 0.0267 | | 282.0102 |
| **Total** | **10.4201** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | **0.0000** | **281.4485** | **281.4485** | **0.0267** | | **282.0102** |

### 3.7 Architectural Coating - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.7500e-003 | 8.5300e-003 | 0.1067 | 2.8000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.6000e-004 | 6.0900e-003 | | 22.0298 | 22.0298 | 1.0400e-003 | | 22.0517 |
| **Total** | **6.7500e-003** | **8.5300e-003** | **0.1067** | **2.8000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.6000e-004** | **6.0900e-003** | | **22.0298** | **22.0298** | **1.0400e-003** | | **22.0517** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 1.1958 | 3.3764 | 13.7258 | 0.0380 | 2.5387 | 0.0515 | 2.5902 | 0.6783 | 0.0475 | 0.7258 | | 3,134.5300 | 3,134.5300 | 0.1140 | | 3,136.9248 |
| Unmitigated | 1.1958 | 3.3764 | 13.7258 | 0.0380 | 2.5387 | 0.0515 | 2.5902 | 0.6783 | 0.0475 | 0.7258 | | 3,134.5300 | 3,134.5300 | 0.1140 | | 3,136.9248 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |
| Total | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |

## 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 |
| Enclosed Parking with Elevator | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.512137 | 0.059943 | 0.180601 | 0.139123 | 0.042256 | 0.006647 | 0.016115 | 0.031670 | 0.001940 | 0.002502 | 0.004362 | 0.000588 | 0.002117 |

## 5.0 Energy Detail

## 4.4 Fleet Mix

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| NaturalGas Unmitigated | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 435.942 | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.7000e-003** | **0.0427** | **0.0359** | **2.6000e-004** | | **3.2500e-003** | **3.2500e-003** | | **3.2500e-003** | **3.2500e-003** | | **51.2873** | **51.2873** | **9.8000e-004** | **9.4000e-004** | **51.5995** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 0.435942 | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.7000e-003** | **0.0427** | **0.0359** | **2.6000e-004** | | **3.2500e-003** | **3.2500e-003** | | **3.2500e-003** | **3.2500e-003** | | **51.2873** | **51.2873** | **9.8000e-004** | **9.4000e-004** | **51.5995** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.6887 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Unmitigated | 0.7441 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1664 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.5765 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2300e-003 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| **Total** | **0.7441** | **1.2000e-004** | **0.0129** | **0.0000** | | **5.0000e-005** | **5.0000e-005** | | **5.0000e-005** | **5.0000e-005** | | **0.0273** | **0.0273** | **7.0000e-005** | | **0.0289** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1109 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.5765 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2300e-003 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| **Total** | **0.6887** | **1.2000e-004** | **0.0129** | **0.0000** | | **5.0000e-005** | **5.0000e-005** | | **5.0000e-005** | **5.0000e-005** | | **0.0273** | **0.0273** | **7.0000e-005** | | **0.0289** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Vegetation

# 9000 Wilshire Blvd. Commercial Project

**South Coast Air Basin, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 33.75 | 1000sqft | 0.36 | 14,558.00 | 0 |
| Enclosed Parking with Elevator | 91.00 | Space | 0.36 | 14,558.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 11 | | | **Operational Year** | 2018 |
| **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 - Office floors + rooftop = 33,751 sq/ft. Footprint is 14,558sq/ft

Construction Phase - Site prep and gradig would be over 40 days due to subterranean garage. Architecural coating changed to overlap with building for more reasonable timeframe.

Trips and VMT - Traffic study: 50 workers per day with carpooling, construction staff would be 34 vehicles

Demolition - Existing: 9000 Wilshire Blvd 3,825 sf, 9006 Wilshire Blvd. 3,007 sf

Grading - Project site is 0.33 acres

Architectural Coating - No residential. SCAQMD Rule 1113: low VOC paint of 150g/L

Vehicle Trips - Weekday trip rate of 350/33.75 sf = 10.37 and Sat Trip Rate of 78/33.75 = 2.31 and Sunday no estimated traffic. Based on Traffic Study

Area Coating - SCAQMD Rule 1113: low VOC 150 g/L

Water And Wastewater - At 4,755 gal/day * 255 work days/yr is 1,212,525

Solid Waste - 82.6 from CEQA Utilities Section

Construction Off-road Equipment Mitigation - Water 3 times a day per SCAQMD Rule 403 and cover tarp per SCAQMD requirements. Soil stabilizer and ground cover per URBEMIS

Area Mitigation - 150 per SCAQMD regulation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblArchitecturalCoating | EF_Nonresidential_Exterior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Nonresidential_Interior | 250.00 | 150.00 |
| tblArchitecturalCoating | EF_Residential_Exterior | 100.00 | 0.00 |
| tblArchitecturalCoating | EF_Residential_Interior | 50.00 | 0.00 |
| tblAreaCoating | Area_EF_Nonresidential_Exterior | 250 | 150 |
| tblAreaMitigation | UseLowVOCPaintNonresidentialInteriorValue | 250 | 150 |
| tblConstructionPhase | NumDays | 5.00 | 40.00 |
| tblConstructionPhase | NumDays | 100.00 | 250.00 |
| tblConstructionPhase | NumDays | 10.00 | 30.00 |
| tblConstructionPhase | NumDays | 2.00 | 50.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 45.00 |
| tblConstructionPhase | PhaseEndDate | 8/3/2018 | 1/25/2018 |
| tblConstructionPhase | PhaseEndDate | 6/6/2018 | 6/8/2018 |
| tblConstructionPhase | PhaseEndDate | 7/7/2017 | 6/21/2017 |
| tblConstructionPhase | PhaseStartDate | 6/9/2018 | 12/1/2017 |
| tblConstructionPhase | PhaseStartDate | 6/22/2017 | 6/24/2017 |
| tblConstructionPhase | PhaseStartDate | 6/24/2017 | 6/8/2017 |
| tblGrading | AcresOfGrading | 22.50 | 0.50 |
| tblLandUse | LandUseSquareFeet | 33,750.00 | 14,558.00 |
| tblLandUse | LandUseSquareFeet | 36,400.00 | 14,558.00 |
| tblLandUse | LotAcreage | 0.77 | 0.36 |
| tblLandUse | LotAcreage | 0.82 | 0.36 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2018 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2017 | 11.8192 | 20.4550 | 17.3355 | 0.0269 | 1.0657 | 1.3309 | 2.3966 | 0.4968 | 1.2525 | 1.7493 | 0.0000 | 2,553.1466 | 2,553.1466 | 0.5459 | 0.0000 | 2,564.6094 |
| 2018 | 11.5824 | 13.3962 | 10.7579 | 0.0171 | 0.1766 | 0.8632 | 1.0397 | 0.0474 | 0.8062 | 0.8536 | 0.0000 | 1,660.6046 | 1,660.6046 | 0.3893 | 0.0000 | 1,668.7796 |
| **Total** | **23.4016** | **33.8512** | **28.0933** | **0.0440** | **1.2423** | **2.1941** | **3.4364** | **0.5442** | **2.0586** | **2.6029** | **0.0000** | **4,213.7512** | **4,213.7512** | **0.9351** | **0.0000** | **4,233.3891** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2017 | 11.8192 | 20.4550 | 17.3355 | 0.0269 | 0.5919 | 1.3309 | 1.9228 | 0.2363 | 1.2525 | 1.4888 | 0.0000 | 2,553.1466 | 2,553.1466 | 0.5459 | 0.0000 | 2,564.6094 |
| 2018 | 11.5824 | 13.3962 | 10.7579 | 0.0171 | 0.1766 | 0.8632 | 1.0397 | 0.0474 | 0.8062 | 0.8536 | 0.0000 | 1,660.6046 | 1,660.6046 | 0.3893 | 0.0000 | 1,668.7796 |
| **Total** | **23.4016** | **33.8512** | **28.0933** | **0.0440** | **0.7684** | **2.1941** | **2.9625** | **0.2838** | **2.0586** | **2.3424** | **0.0000** | **4,213.7512** | **4,213.7512** | **0.9351** | **0.0000** | **4,233.3891** |

| | **ROG** | **NOx** | **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** | **38.14** | **0.00** | **13.79** | **47.86** | **0.00** | **10.01** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.7441 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Energy | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Mobile | 1.2326 | 3.5483 | 13.5202 | 0.0361 | 2.5387 | 0.0517 | 2.5904 | 0.6783 | 0.0476 | 0.7260 | | 2,984.0198 | 2,984.0198 | 0.1141 | | 2,986.4167 |
| **Total** | **1.9814** | **3.5911** | **13.5690** | **0.0364** | **2.5387** | **0.0550** | **2.5937** | **0.6783** | **0.0509** | **0.7293** | | **3,035.3344** | **3,035.3344** | **0.1152** | **9.4000e-004** | **3,038.0451** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.6887 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Energy | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Mobile | 1.2326 | 3.5483 | 13.5202 | 0.0361 | 2.5387 | 0.0517 | 2.5904 | 0.6783 | 0.0476 | 0.7260 | | 2,984.0198 | 2,984.0198 | 0.1141 | | 2,986.4167 |
| **Total** | **1.9259** | **3.5911** | **13.5690** | **0.0364** | **2.5387** | **0.0550** | **2.5937** | **0.6783** | **0.0509** | **0.7293** | | **3,035.3344** | **3,035.3344** | **0.1152** | **9.4000e-004** | **3,038.0451** |

| | ROG | NOx | 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 | 2.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2017 | 2/10/2017 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 2/11/2017 | 4/14/2017 | 5 | 45 | |
| 3 | Grading | Grading | 4/15/2017 | 6/23/2017 | 5 | 50 | |
| 4 | Paving | Paving | 6/8/2017 | 6/21/2017 | 5 | 10 | |
| 5 | Building Construction | Building Construction | 6/24/2017 | 6/8/2018 | 5 | 250 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2017 | 1/25/2018 | 5 | 40 | |

**Acres of Grading (Site Preparation Phase): 0.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,674; Non-Residential Outdoor: 14,558 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 174 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 255 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 226 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 125 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 31.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 11.00 | 5.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 2.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

## 3.2 Demolition - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2242 | 0.0000 | 0.2242 | 0.0339 | 0.0000 | 0.0339 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.2242** | **0.7266** | **0.9508** | **0.0339** | **0.6930** | **0.7269** | | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.2 Demolition - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0177 | 0.2719 | 0.2224 | 7.6000e-004 | 0.0180 | 4.0600e-003 | 0.0221 | 4.9300e-003 | 3.7300e-003 | 8.6600e-003 | | 75.4455 | 75.4455 | 5.5000e-004 | | 75.4570 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0382 | 0.0516 | 0.5392 | 1.3300e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 107.2846 | 107.2846 | 5.6300e-003 | | 107.4028 |
| **Total** | **0.0559** | **0.3236** | **0.7616** | **2.0900e-003** | **0.1298** | **4.9600e-003** | **0.1347** | **0.0346** | **4.5600e-003** | **0.0391** | | **182.7301** | **182.7301** | **6.1800e-003** | | **182.8598** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0831 | 0.0000 | 0.0831 | 0.0126 | 0.0000 | 0.0126 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | 0.0000 | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.0831** | **0.7266** | **0.8097** | **0.0126** | **0.6930** | **0.7056** | **0.0000** | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.2 Demolition - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0177 | 0.2719 | 0.2224 | 7.6000e-004 | 0.0180 | 4.0600e-003 | 0.0221 | 4.9300e-003 | 3.7300e-003 | 8.6600e-003 | | 75.4455 | 75.4455 | 5.5000e-004 | | 75.4570 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0382 | 0.0516 | 0.5392 | 1.3300e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 107.2846 | 107.2846 | 5.6300e-003 | | 107.4028 |
| **Total** | **0.0559** | **0.3236** | **0.7616** | **2.0900e-003** | **0.1298** | **4.9600e-003** | **0.1347** | **0.0346** | **4.5600e-003** | **0.0391** | | **182.7301** | **182.7301** | **6.1800e-003** | | **182.8598** |

## 3.3 Site Preparation - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0118 | 0.0000 | 0.0118 | 1.2700e-003 | 0.0000 | 1.2700e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2694 | 12.6852 | 7.2319 | 9.3300e-003 | | 0.7705 | 0.7705 | | 0.7089 | 0.7089 | | 955.8663 | 955.8663 | 0.2929 | | 962.0167 |
| **Total** | **1.2694** | **12.6852** | **7.2319** | **9.3300e-003** | **0.0118** | **0.7705** | **0.7823** | **1.2700e-003** | **0.7089** | **0.7101** | | **955.8663** | **955.8663** | **0.2929** | | **962.0167** |

## 3.3 Site Preparation - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0191 | 0.0258 | 0.2696 | 6.6000e-004 | 0.0559 | 4.5000e-004 | 0.0563 | 0.0148 | 4.1000e-004 | 0.0152 | | 53.6423 | 53.6423 | 2.8100e-003 | | 53.7014 |
| **Total** | **0.0191** | **0.0258** | **0.2696** | **6.6000e-004** | **0.0559** | **4.5000e-004** | **0.0563** | **0.0148** | **4.1000e-004** | **0.0152** | | **53.6423** | **53.6423** | **2.8100e-003** | | **53.7014** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 4.3700e-003 | 0.0000 | 4.3700e-003 | 4.7000e-004 | 0.0000 | 4.7000e-004 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2694 | 12.6852 | 7.2319 | 9.3300e-003 | | 0.7705 | 0.7705 | | 0.7089 | 0.7089 | 0.0000 | 955.8663 | 955.8663 | 0.2929 | | 962.0167 |
| **Total** | **1.2694** | **12.6852** | **7.2319** | **9.3300e-003** | **4.3700e-003** | **0.7705** | **0.7749** | **4.7000e-004** | **0.7089** | **0.7093** | **0.0000** | **955.8663** | **955.8663** | **0.2929** | | **962.0167** |

## 3.3 Site Preparation - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0191 | 0.0258 | 0.2696 | 6.6000e-004 | 0.0559 | 4.5000e-004 | 0.0563 | 0.0148 | 4.1000e-004 | 0.0152 | | 53.6423 | 53.6423 | 2.8100e-003 | | 53.7014 |
| **Total** | **0.0191** | **0.0258** | **0.2696** | **6.6000e-004** | **0.0559** | **4.5000e-004** | **0.0563** | **0.0148** | **4.1000e-004** | **0.0152** | | **53.6423** | **53.6423** | **2.8100e-003** | | **53.7014** |

## 3.4 Grading - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7528 | 0.0000 | 0.7528 | 0.4138 | 0.0000 | 0.4138 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.7528** | **0.7266** | **1.4794** | **0.4138** | **0.6930** | **1.1068** | | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.4 Grading - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0382 | 0.0516 | 0.5392 | 1.3300e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 107.2846 | 107.2846 | 5.6300e-003 | | 107.4028 |
| **Total** | **0.0382** | **0.0516** | **0.5392** | **1.3300e-003** | **0.1118** | **9.0000e-004** | **0.1127** | **0.0296** | **8.3000e-004** | **0.0305** | | **107.2846** | **107.2846** | **5.6300e-003** | | **107.4028** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2789 | 0.0000 | 0.2789 | 0.1533 | 0.0000 | 0.1533 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2049 | 10.4761 | 8.5825 | 0.0120 | | 0.7266 | 0.7266 | | 0.6930 | 0.6930 | 0.0000 | 1,183.8131 | 1,183.8131 | 0.2333 | | 1,188.7118 |
| **Total** | **1.2049** | **10.4761** | **8.5825** | **0.0120** | **0.2789** | **0.7266** | **1.0055** | **0.1533** | **0.6930** | **0.8463** | **0.0000** | **1,183.8131** | **1,183.8131** | **0.2333** | | **1,188.7118** |

## 3.4 Grading - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0382 | 0.0516 | 0.5392 | 1.3300e-003 | 0.1118 | 9.0000e-004 | 0.1127 | 0.0296 | 8.3000e-004 | 0.0305 | | 107.2846 | 107.2846 | 5.6300e-003 | | 107.4028 |
| **Total** | **0.0382** | **0.0516** | **0.5392** | **1.3300e-003** | **0.1118** | **9.0000e-004** | **0.1127** | **0.0296** | **8.3000e-004** | **0.0305** | | **107.2846** | **107.2846** | **5.6300e-003** | | **107.4028** |

## 3.5 Paving - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0406 | 9.8344 | 7.2432 | 0.0111 | | 0.6018 | 0.6018 | | 0.5572 | 0.5572 | | 1,068.9366 | 1,068.9366 | 0.2968 | | 1,075.1698 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0406** | **9.8344** | **7.2432** | **0.0111** | | **0.6018** | **0.6018** | | **0.5572** | **0.5572** | | **1,068.9366** | **1,068.9366** | **0.2968** | | **1,075.1698** |

## 3.5 Paving - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0687 | 0.0929 | 0.9706 | 2.3900e-003 | 0.2012 | 1.6200e-003 | 0.2028 | 0.0534 | 1.4900e-003 | 0.0549 | | 193.1123 | 193.1123 | 0.0101 | | 193.3250 |
| **Total** | **0.0687** | **0.0929** | **0.9706** | **2.3900e-003** | **0.2012** | **1.6200e-003** | **0.2028** | **0.0534** | **1.4900e-003** | **0.0549** | | **193.1123** | **193.1123** | **0.0101** | | **193.3250** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0406 | 9.8344 | 7.2432 | 0.0111 | | 0.6018 | 0.6018 | | 0.5572 | 0.5572 | 0.0000 | 1,068.9366 | 1,068.9366 | 0.2968 | | 1,075.1698 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0406** | **9.8344** | **7.2432** | **0.0111** | | **0.6018** | **0.6018** | | **0.5572** | **0.5572** | **0.0000** | **1,068.9366** | **1,068.9366** | **0.2968** | | **1,075.1698** |

## 3.5 Paving - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0687 | 0.0929 | 0.9706 | 2.3900e-003 | 0.2012 | 1.6200e-003 | 0.2028 | 0.0534 | 1.4900e-003 | 0.0549 | | 193.1123 | 193.1123 | 0.0101 | | 193.3250 |
| **Total** | **0.0687** | **0.0929** | **0.9706** | **2.3900e-003** | **0.2012** | **1.6200e-003** | **0.2028** | **0.0534** | **1.4900e-003** | **0.0549** | | **193.1123** | **193.1123** | **0.0101** | | **193.3250** |

## 3.6 Building Construction - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2740 | 12.6738 | 8.0395 | 0.0113 | | 0.8553 | 0.8553 | | 0.7869 | 0.7869 | | 1,159.5310 | 1,159.5310 | 0.3553 | | 1,166.9919 |
| **Total** | **1.2740** | **12.6738** | **8.0395** | **0.0113** | | **0.8553** | **0.8553** | | **0.7869** | **0.7869** | | **1,159.5310** | **1,159.5310** | **0.3553** | | **1,166.9919** |

## 3.6 Building Construction - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0418 | 0.4051 | 0.5683 | 1.0800e-003 | 0.0313 | 6.3500e-003 | 0.0376 | 8.9000e-003 | 5.8400e-003 | 0.0148 | | 106.4319 | 106.4319 | 7.8000e-004 | | 106.4483 |
| Worker | 0.0420 | 0.0568 | 0.5931 | 1.4600e-003 | 0.1230 | 9.9000e-004 | 0.1239 | 0.0326 | 9.1000e-004 | 0.0335 | | 118.0131 | 118.0131 | 6.1900e-003 | | 118.1431 |
| **Total** | **0.0838** | **0.4619** | **1.1614** | **2.5400e-003** | **0.1542** | **7.3400e-003** | **0.1616** | **0.0415** | **6.7500e-003** | **0.0483** | | **224.4450** | **224.4450** | **6.9700e-003** | | **224.5914** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2740 | 12.6738 | 8.0395 | 0.0113 | | 0.8553 | 0.8553 | | 0.7869 | 0.7869 | 0.0000 | 1,159.5310 | 1,159.5310 | 0.3553 | | 1,166.9919 |
| **Total** | **1.2740** | **12.6738** | **8.0395** | **0.0113** | | **0.8553** | **0.8553** | | **0.7869** | **0.7869** | **0.0000** | **1,159.5310** | **1,159.5310** | **0.3553** | | **1,166.9919** |

## 3.6 Building Construction - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0418 | 0.4051 | 0.5683 | 1.0800e-003 | 0.0313 | 6.3500e-003 | 0.0376 | 8.9000e-003 | 5.8400e-003 | 0.0148 | | 106.4319 | 106.4319 | 7.8000e-004 | | 106.4483 |
| Worker | 0.0420 | 0.0568 | 0.5931 | 1.4600e-003 | 0.1230 | 9.9000e-004 | 0.1239 | 0.0326 | 9.1000e-004 | 0.0335 | | 118.0131 | 118.0131 | 6.1900e-003 | | 118.1431 |
| **Total** | **0.0838** | **0.4619** | **1.1614** | **2.5400e-003** | **0.1542** | **7.3400e-003** | **0.1616** | **0.0415** | **6.7500e-003** | **0.0483** | | **224.4450** | **224.4450** | **6.9700e-003** | | **224.5914** |

## 3.6 Building Construction - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0786 | 10.9578 | 7.7239 | 0.0113 | | 0.7055 | 0.7055 | | 0.6491 | 0.6491 | | 1,140.2487 | 1,140.2487 | 0.3550 | | 1,147.7032 |
| **Total** | **1.0786** | **10.9578** | **7.7239** | **0.0113** | | **0.7055** | **0.7055** | | **0.6491** | **0.6491** | | **1,140.2487** | **1,140.2487** | **0.3550** | | **1,147.7032** |

## 3.6 Building Construction - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0391 | 0.3719 | 0.5453 | 1.0800e-003 | 0.0313 | 5.9900e-003 | 0.0373 | 8.9000e-003 | 5.5100e-003 | 0.0144 | | 104.6453 | 104.6453 | 7.8000e-004 | | 104.6616 |
| Worker | 0.0378 | 0.0515 | 0.5368 | 1.4600e-003 | 0.1230 | 9.6000e-004 | 0.1239 | 0.0326 | 8.9000e-004 | 0.0335 | | 113.6064 | 113.6064 | 5.7500e-003 | | 113.7270 |
| **Total** | **0.0769** | **0.4234** | **1.0821** | **2.5400e-003** | **0.1542** | **6.9500e-003** | **0.1612** | **0.0415** | **6.4000e-003** | **0.0479** | | **218.2517** | **218.2517** | **6.5300e-003** | | **218.3886** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0786 | 10.9578 | 7.7239 | 0.0113 | | 0.7055 | 0.7055 | | 0.6491 | 0.6491 | 0.0000 | 1,140.2487 | 1,140.2487 | 0.3550 | | 1,147.7032 |
| **Total** | **1.0786** | **10.9578** | **7.7239** | **0.0113** | | **0.7055** | **0.7055** | | **0.6491** | **0.6491** | **0.0000** | **1,140.2487** | **1,140.2487** | **0.3550** | | **1,147.7032** |

## 3.6 Building Construction - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0391 | 0.3719 | 0.5453 | 1.0800e-003 | 0.0313 | 5.9900e-003 | 0.0373 | 8.9000e-003 | 5.5100e-003 | 0.0144 | | 104.6453 | 104.6453 | 7.8000e-004 | | 104.6616 |
| Worker | 0.0378 | 0.0515 | 0.5368 | 1.4600e-003 | 0.1230 | 9.6000e-004 | 0.1239 | 0.0326 | 8.9000e-004 | 0.0335 | | 113.6064 | 113.6064 | 5.7500e-003 | | 113.7270 |
| **Total** | **0.0769** | **0.4234** | **1.0821** | **2.5400e-003** | **0.1542** | **6.9500e-003** | **0.1612** | **0.0415** | **6.4000e-003** | **0.0479** | | **218.2517** | **218.2517** | **6.5300e-003** | | **218.3886** |

## 3.7 Architectural Coating - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3323 | 2.1850 | 1.8681 | 2.9700e-003 | | 0.1733 | 0.1733 | | 0.1733 | 0.1733 | | 281.4481 | 281.4481 | 0.0297 | | 282.0721 |
| **Total** | **10.4538** | **2.1850** | **1.8681** | **2.9700e-003** | | **0.1733** | **0.1733** | | **0.1733** | **0.1733** | | **281.4481** | **281.4481** | **0.0297** | | **282.0721** |

## 3.7 Architectural Coating - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.6400e-003 | 0.0103 | 0.1078 | 2.7000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.7000e-004 | 6.0900e-003 | | 21.4569 | 21.4569 | 1.1300e-003 | | 21.4806 |
| **Total** | **7.6400e-003** | **0.0103** | **0.1078** | **2.7000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.7000e-004** | **6.0900e-003** | | **21.4569** | **21.4569** | **1.1300e-003** | | **21.4806** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3323 | 2.1850 | 1.8681 | 2.9700e-003 | | 0.1733 | 0.1733 | | 0.1733 | 0.1733 | 0.0000 | 281.4481 | 281.4481 | 0.0297 | | 282.0721 |
| **Total** | **10.4538** | **2.1850** | **1.8681** | **2.9700e-003** | | **0.1733** | **0.1733** | | **0.1733** | **0.1733** | **0.0000** | **281.4481** | **281.4481** | **0.0297** | | **282.0721** |

## 3.7 Architectural Coating - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.6400e-003 | 0.0103 | 0.1078 | 2.7000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.7000e-004 | 6.0900e-003 | | 21.4569 | 21.4569 | 1.1300e-003 | | 21.4806 |
| **Total** | **7.6400e-003** | **0.0103** | **0.1078** | **2.7000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.7000e-004** | **6.0900e-003** | | **21.4569** | **21.4569** | **1.1300e-003** | | **21.4806** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | | 281.4485 | 281.4485 | 0.0267 | | 282.0102 |
| **Total** | **10.4201** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | | **281.4485** | **281.4485** | **0.0267** | | **282.0102** |

## 3.7 Architectural Coating - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.8700e-003 | 9.3700e-003 | 0.0976 | 2.7000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.6000e-004 | 6.0900e-003 | | 20.6557 | 20.6557 | 1.0400e-003 | | 20.6776 |
| **Total** | **6.8700e-003** | **9.3700e-003** | **0.0976** | **2.7000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.6000e-004** | **6.0900e-003** | | **20.6557** | **20.6557** | **1.0400e-003** | | **20.6776** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 10.1215 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | 0.0000 | 281.4485 | 281.4485 | 0.0267 | | 282.0102 |
| **Total** | **10.4201** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | **0.0000** | **281.4485** | **281.4485** | **0.0267** | | **282.0102** |

### 3.7 Architectural Coating - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.8700e-003 | 9.3700e-003 | 0.0976 | 2.7000e-004 | 0.0224 | 1.8000e-004 | 0.0225 | 5.9300e-003 | 1.6000e-004 | 6.0900e-003 | | 20.6557 | 20.6557 | 1.0400e-003 | | 20.6776 |
| **Total** | **6.8700e-003** | **9.3700e-003** | **0.0976** | **2.7000e-004** | **0.0224** | **1.8000e-004** | **0.0225** | **5.9300e-003** | **1.6000e-004** | **6.0900e-003** | | **20.6557** | **20.6557** | **1.0400e-003** | | **20.6776** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 1.2326 | 3.5483 | 13.5202 | 0.0361 | 2.5387 | 0.0517 | 2.5904 | 0.6783 | 0.0476 | 0.7260 | | 2,984.0198 | 2,984.0198 | 0.1141 | | 2,986.4167 |
| Unmitigated | 1.2326 | 3.5483 | 13.5202 | 0.0361 | 2.5387 | 0.0517 | 2.5904 | 0.6783 | 0.0476 | 0.7260 | | 2,984.0198 | 2,984.0198 | 0.1141 | | 2,986.4167 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |
| Total | 371.59 | 79.99 | 33.08 | 907,071 | 907,071 |

## 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 |
| Enclosed Parking with Elevator | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.512137 | 0.059943 | 0.180601 | 0.139123 | 0.042256 | 0.006647 | 0.016115 | 0.031670 | 0.001940 | 0.002502 | 0.004362 | 0.000588 | 0.002117 |

## 5.0 Energy Detail

## 4.4 Fleet Mix

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| NaturalGas Unmitigated | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 435.942 | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.7000e-003** | **0.0427** | **0.0359** | **2.6000e-004** | | **3.2500e-003** | **3.2500e-003** | | **3.2500e-003** | **3.2500e-003** | | **51.2873** | **51.2873** | **9.8000e-004** | **9.4000e-004** | **51.5995** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 0.435942 | 4.7000e-003 | 0.0427 | 0.0359 | 2.6000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.2500e-003 | 3.2500e-003 | | 51.2873 | 51.2873 | 9.8000e-004 | 9.4000e-004 | 51.5995 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.7000e-003** | **0.0427** | **0.0359** | **2.6000e-004** | | **3.2500e-003** | **3.2500e-003** | | **3.2500e-003** | **3.2500e-003** | | **51.2873** | **51.2873** | **9.8000e-004** | **9.4000e-004** | **51.5995** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.6887 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| Unmitigated | 0.7441 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1664 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.5765 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2300e-003 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| **Total** | **0.7441** | **1.2000e-004** | **0.0129** | **0.0000** | | **5.0000e-005** | **5.0000e-005** | | **5.0000e-005** | **5.0000e-005** | | **0.0273** | **0.0273** | **7.0000e-005** | | **0.0289** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1109 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.5765 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2300e-003 | 1.2000e-004 | 0.0129 | 0.0000 | | 5.0000e-005 | 5.0000e-005 | | 5.0000e-005 | 5.0000e-005 | | 0.0273 | 0.0273 | 7.0000e-005 | | 0.0289 |
| **Total** | **0.6887** | **1.2000e-004** | **0.0129** | **0.0000** | | **5.0000e-005** | **5.0000e-005** | | **5.0000e-005** | **5.0000e-005** | | **0.0273** | **0.0273** | **7.0000e-005** | | **0.0289** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Vegetation

# Appendix B

*Geotechnical Engineering Investigation*

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*
*Celebrating 40 Years of Service 1971-2011*

February 9, 2012
File No. 20256

9000 Wilshire, LLC
12400 Wilshire Boulevard, Suite 1000
Beverly Hills, California 90025

Attention: Sean Youssefi

Subject: Geotechnical Engineering Investigation
Proposed Commercial Office Building
9000 Wilshire Boulevard, Beverly Hills, California

Ladies and Gentlemen:

This letter transmits the Geotechnical Engineering Investigation for the subject site prepared by Geotechnologies, Inc. This report provides geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, excavations, shoring and foundation design. Engineering for the proposed project should not begin until approval of the geotechnical investigation is granted by the local building official. Significant changes in the geotechnical recommendations may result due to the building department review process.

The validity of the recommendations presented herein is dependant upon review of the geotechnical aspects of the project during construction by this firm. The subsurface conditions described herein have been projected from limited subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

GREGORIO VARELA
Staff Engineer

STANLEY S. TANG
Project Engineer
R.C.E. 56178

PROFESSIONAL ENGINEER
STANLEY SIU-KEI TANG
No. 56178
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

GV/SST:km

Distribution: (6) Addressee
(1) Saiful Bouquet Structural Engineers; Attn: Tom Bouquet

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**GEOTECHNICAL ENGINEERING INVESTIGATION**
**PROPOSED COMMERCIAL OFFICE BUILDING**
**9000 WILSHIRE BOULEVARD**
**BEVERLY HILLS, CALIFORNIA**

## INTRODUCTION

This report presents the results of the geotechnical engineering investigation performed on the subject site. The purpose of this investigation was to identify the distribution and engineering properties of the geologic materials underlying the site, and to provide geotechnical recommendations for the design of the proposed development.

This investigation included two exploratory borings, collection of representative samples, laboratory testing, engineering analysis, review of published geologic data, review of available geotechnical engineering information and the preparation of this report. The exploratory excavation locations are shown on the enclosed Plot Plan. The results of the exploration and the laboratory testing are presented in the Appendix of this report.

## SITE CONDITIONS

The site is located at 9000 Wilshire Boulevard, in the City of Beverly Hills, California. The site consists of an approximately 0.36-acre, rectangular shaped lot. The site is bounded by Wilshire Boulevard to the north, Almont Drive to the east, a city alley and followed by a single family residence to the south, and a 6-story storage facility to the west. The site is shown relative to nearby topographic features on the attached Vicinity Map, and relative to existing development on the attached plot plans and cross sections.

The existing site ground surface descends gently to the southeast, with elevations ranging from 174.87 on the northwestern corner to 170.44 on the southeastern corner. The northern half of the site is currently developed with a one-story commercial brick building and a two-story commercial stucco building. Both buildings are expected to be demolished prior to construction of the proposed structure. The southern half of the site is currently occupied by an asphalt-paved parking lot. Vegetation on the site is non existent. Drainage appears to be by sheetflow towards the City streets.

## PROPOSED DEVELOPMENT

Information concerning the proposed development was furnished by the client, and by the project structural engineer, Saiful Bouquet Structural Engineers. The site is proposed to be developed with a new commercial office building. The structure is proposed to be 3 stories in height, built over a multi-level subterranean parking garage.

Currently, two design options are being considered for the proposed subterranean parking garage. Design recommendations for both options are provided in this report. For the purpose of writing of this report, the options have been labeled as Option 1 and Option 2.

Option 1 consists of four levels of subterranean parking garage, which would extend to a maximum depth of 55½ feet below the existing grade, or to an approximate elevation of 119.5 feet. Under this option, the footprint of the proposed subterranean levels would set back approximately 1 to 3 feet from the property line in each direction. The proposed horizontal and vertical extent of Option 1 has been illustrated in the Plot Plan - Option 1, and in Cross Sections A-A' and B-B', found in the Appendix of this report. According to the project structural engineer, the planned structure under Option 1 will impart an average bearing pressure of 1,300 pounds per square foot, not including the weight of the foundations.

Option 2 consists of five levels of subterranean automated parking, which would extend to a maximum depth of 44½ feet below the existing site grade, or to an approximate elevation of 130.5 feet. Under this option, the southern portion of the building, south of Gridline 05, will be constructed over one subterranean level, with a finished floor elevation of 164.5 feet. The remainder of the building, north of Gridline 05, will be constructed over five levels of subterranean parking levels, with a finished floor elevation of 130.5 feet. The proposed horizontal and vertical extent of Option 2 has been illustrated in the Plot Plan - Option 2, and in Cross Sections C-C' and D-D', found in the Appendix of this report. According to the project structural engineer, the planned structure under Option 2 will impart an average bearing pressure of 1,480 pounds per square foot under the deeper portions of the subterranean parking garage, and an average bearing pressure of 1,000 pounds per square foot for the southern portion of the first subterranean level. These loads do not include the weight of the foundations.

Any changes in the design of the project or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained in this report should not be considered valid until reviewed and modified or reaffirmed, in writing, subsequent to such review.

## GEOTECHNICAL EXPLORATION

### FIELD EXPLORATION

The site was explored on December 12, 2011, by drilling two exploratory borings to depths between 70 and 90 feet. The borings were excavated with the aid of a truck-mounted drilling machine, using 8-inch diameter hollowstem augers. The boring locations are shown on the plot plans and the geologic materials encountered are logged on Plates A-1 and A-2.

The location of exploratory excavations was determined by measurement from hardscape features shown on the Plot Plan. Elevations of the borings were determined from elevations contained in the land title survey by O.K.O. Engineering, Inc., dated August 1, 2011. The location and elevation of the borings should be considered accurate only to the degree implied by the method used.

**Geologic Materials**

Fill materials were encountered in the exploratory borings to depths between 3 and 3½ feet below the existing site grade. Fill materials consist of a mixture of sand and silt, which are dark brown in color, moist, medium dense or stiff, and fine grained.

The fill is underlain by alluvial deposits, which consists of interlayered mixtures of sand, silt, and clay. The alluvium ranges from yellowish to dark brown in color, and is slightly moist to moist, medium dense to very dense, or stiff to very stiff, and fine grained, with occasional slate fragments and gravel.

In both borings, shallow marine sediments were found underlying the alluvial deposits at depths between 65 and 70 feet. These shallow marine sediments consist of interlayered mixtures of silt, clay, and sand, which range from grayish to greenish brown in color, and are moist to very moist, very dense, or stiff, and fine grained, with occasional slate fragments. More detailed descriptions of the geologic materials encountered may be obtained from individual boring logs.

**Groundwater and Caving**

Groundwater was encountered in both borings at a depth of 35 feet below the existing site grade, corresponding to an approximate elevation of 136.5 feet in Boring 1, and 137.25 feet in Boring 2. Historic groundwater data provided in the Seismic Hazard Zone Report of the Beverly Hills 7½-

Minute Quadrangle (CDMG, 1998, Revised 2005) indicates the historic high groundwater level at the site was 25 feet below the ground surface, corresponding to an approximate elevation 150.0 feet, based on the highest site elevation. A copy of the Historically Highest Groundwater Levels Map provided in the Seismic Hazard Zone Report is enclosed in the Appendix of this report.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can result in changed conditions.

Caving could not be directly observed during drilling due to the continuously cased design of the augers.

## SAN VICENTE OIL FIELD

Based on review of the Oil Well Location Map for the San Vicente Oil Field (DOGGR, 2001), the subject site is located within the limits of the San Vicente Oil Field. A copy of this map has been included in the Appendix. Based on review of this map, no oil wells were drilled on the subject site. The closest oil well is located approximately 900 feet to the north of the site. This oil well is indicated as drilled by Texaco Producing, Inc., and it has been marked as plugged and abandoned.

# SEISMIC EVALUATION

## REGIONAL GEOLOGIC SETTING

The subject site is in the extreme northern portion of the Peninsular Ranges Geomorphic Province and south of the Transverse Ranges Geomorphic Province. The Peninsular Ranges are characterized

by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the Transverse Ranges.

The Transverse Ranges are characterized by roughly east-west trending mountains and the northern and southern boundaries are formed by reverse fault scarps. The convergent deformational features of the Transverse Ranges are a result of north-south shortening due to plate tectonics. This has resulted in local folding and uplift of the mountains along with the propagation of thrust faults. The intervening valleys have been filled with sediments derived from bordering mountains.

## REGIONAL FAULTING

Based on criteria established by the California Division of Mines and Geology (CDMG) now called California Geologic Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary-age). Faults showing no evidence of surface displacement within the last 1.6 million years are considered inactive for most purposes, with the exception of design of some critical structures.

Buried thrust faults are faults without a surface expression but are a significant source of seismic activity. They are typically broadly defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in the southern California area. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake. The risk for surface rupture potential of these buried thrust faults is inferred to be low (Leighton, 1990). However, the seismic risk of these buried structures in terms of recurrence and maximum potential

magnitude, is not well established. Therefore, the potential for surface rupture on these surface-verging splays at magnitudes higher than 6.0 cannot be precluded.

## SEISMIC HAZARDS AND DESIGN CONSIDERATIONS

The primary geologic hazard at the site is moderate to strong ground motion (acceleration) caused by an earthquake on any of the local or regional faults. The potential for other earthquake-induced hazards was also evaluated including surface rupture, liquefaction, dynamic settlement, inundation and landsliding.

### Surface Rupture

In 1972, the Alquist-Priolo Special Studies Zones Act (now known as the Alquist-Priolo Earthquake Fault Zoning Act) was passed into law. The Act defines "active" and "potentially active" faults utilizing the same aging criteria as that used by California Geological Survey (CGS). However, established state policy has been to zone only those faults which have direct evidence of movement within the last 11,000 years. It is this recency of fault movement that the CGS considers as a characteristic for faults that have a relatively high potential for ground rupture in the future.

CGS policy is to delineate a boundary from 200 to 500 feet wide on each side of the known fault trace based on the location precision, the complexity, or the regional significance of the fault. If a site lies within an Earthquake Fault Zone, a geologic fault rupture investigation must be performed that demonstrates that the proposed building site is not threatened by surface displacement from the fault before development permits may be issued.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

**2010 California Building Code Seismic Parameters**

Based on information derived from the subsurface investigation, the subject site is classified as Site Class D, which corresponds to a "Stiff Soil" Profile, according to Table 1613.5.2 of the 2010 California Building Code. This information and the site coordinates were input into the USGS Ground Motion Parameter Calculator (Version 5.1.0) to calculate the Maximum Considered Earthquake (MCE) Ground Motions for the site. The Maximum Considered Earthquake Ground motions are equivalent to the 2475-year recurrence interval ground motions adjusted by a deterministic limit. These values are consistent with the 2009 International Building Code requirements.

| 2010 CALIFORNIA BUILDING CODE SEISMIC PARAMETERS | |
|---|---|
| Site Class | D |
| Mapped Spectral Acceleration at Short Periods ($S_S$) | 1.686g |
| Site Coefficient ($F_a$) | 1.0 |
| Maximum Considered Earthquake Spectral Response for Short Periods ($S_{MS}$) | 1.686g |
| Five-Percent Damped Design Spectral Response Acceleration at Short Periods ($S_{DS}$) | 1.124g |
| Mapped Spectral Acceleration at One-Second Period ($S_1$) | 0.644g |
| Site Coefficient ($F_v$) | 1.5 |
| Maximum Considered Earthquake Spectral Response for One-Second Period ($S_{M1}$) | 0.966g |
| Five-Percent Damped Design Spectral Response Acceleration for One-Second Period ($S_{D1}$) | 0.644g |

**Deaggregated Seismic Source Parameters**

The peak ground acceleration (PGA) and modal magnitude utilized in the dynamic dry settlement analysis were obtained from the USGS Probabilistic Seismic Hazard Deaggregation program (USGS, 2008). The parameters are based on a 10 percent in 50 years ground motion (475-year return period). A published shear wave velocity (Vs30) consistent with holocene alluvium, of 230 meters per second, was utilized (Tinsley and Fumal, 1985). The deaggregation program indicates a PGA of 0.48g and a modal magnitude of 6.7 for the site.

**Liquefaction**

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazard Zones Map of the Beverly Hills Quadrangle by the State of California (CDMG, 1999), does not classify the site as part of a "Liquefiable" area. A copy of this map may be found in the Appendix of this report. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake.

A site-specific liquefaction analysis was performed following the Recommended Procedures for Implementation of the California Geologic Survey Special Publication 117A, Guidelines for Analyzing and Mitigating Seismic Hazards in California (CGS, 2008). The enclosed liquefaction analysis was performed using the spreadsheet template LIQ2_30.WQ1 developed by Thomas F. Blake (Blake, 1996). This program utilizes the 1996 NCEER method of analysis. This semi-empirical method is based on a correlation between measured values of Standard Penetration Test (SPT) resistance and field performance data.

Groundwater was encountered during exploration at a depth of 35 feet below the ground surface. According to the Seismic Hazard Zone Report of the Beverly Hills 7½-Minute Quadrangle (CDMG, 1998, Revised 2005), the historic-high groundwater level for the site was 25 feet below the ground surface. The historic highest groundwater level was conservatively utilized for the enclosed liquefaction analysis.

A moment magnitude ($M_W$) of 6.7 is utilized in the analysis, based on the USGS Probabilistic Seismic Hazard Deaggregation program (USGS, 2008). A peak ground acceleration of 0.48g is also used in the enclosed liquefaction analysis. This value is the higher of the site specific peak ground acceleration associated with a 10 percent probability of being exceeded in 50 years for an alluvial site condition in this area of Los Angeles, obtained from the USGS Probabilistic Seismic Hazard Deaggregation program, and the peak ground acceleration based on the Five-Percent Damped Design Spectral Response Acceleration at Short Periods ($S_{DS}$) divided by 2.5, in accordance with the California Building Code.

The enclosed "Empirical Estimation of Liquefaction Potential" is based on Boring 2. Standard Penetration Test (SPT) data were collected at 5-foot intervals. Samples of the collected materials were conveyed to the laboratory for testing and analysis. The Plastic Index, (as determined by Atterberg Limits testing), of a fine grained soil layer encountered between depths of 25 and 65 feet are presented on the enclosed Plate E. The results of the Atterberg Limits Testing confirmed that these layers consisting of cohesive, clayey soil materials, which may be considered non-liquefiable. Based on the collected SPT data and the clay content, the enclosed liquefaction analysis indicates that the soils underlying the site would not be susceptible to liquefaction during the design level earthquake.

**Dynamic Dry Settlement**

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

Some seismically-induced settlement of the proposed structures should be expected as a result of strong ground-shaking, however, due to the uniform nature of the underlying geologic materials, excessive differential settlements are not expected to occur.

**Tsunamis, Seiches and Flooding**

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. The site is high enough and far enough from the ocean to preclude being prone to hazards of a tsunami.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Therefore, the risk of flooding from a seismically-induced seiche is considered to be remote.

Review of the County of Los Angeles Flood and Inundation Hazards Map, Leighton (1990), indicates the site lies within the potential mapped inundation boundaries of the Lower Franklin Reservoir, should the dam retaining the reservoir fail during a seismic event. A determination of whether a higher site elevation would remove the site from the potential inundation zones is beyond the scope of this investigation.

**Landsliding**

The probability of seismically-induced landslides occurring on the site is considered to be low due to the general lack of elevation difference across or adjacent to the site.

## CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration, laboratory testing, and research, it is the finding of Geotechnologies, Inc., that construction of both design options for the proposed structure is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations presented herein are followed and implemented during construction.

Between 3 and 3½ feet of fill materials were encountered during exploration. The existing fill is considered to be unsuitable for support of foundations, floor slabs, or additional fill. It is anticipated that all existing fill found within the footprint of the proposed structure will be removed during excavation of the proposed subterranean parking garage.

Groundwater was encountered during exploration at an approximate depth of 35 feet below the existing site grade, corresponding to an approximate elevation of 136.5 feet in Boring 1, and 137.25 feet in Boring 2. Historic groundwater data provided in the Seismic Hazard Zone Report of the Beverly Hills 7½-Minute Quadrangle (CDMG, 1998, Revised 2005) indicates the historic high groundwater level at the site was 25 feet below the ground surface, corresponding to an approximate elevation of 150.0 feet.

Currently, two design options are being considered for the subterranean parking garage. Under Option 1, the lowest finished floor elevation of the entire parking garage would extend to an approximate elevation of 119.5 feet, corresponding to a maximum depth of 55½ feet below grade. The finished floor of the lowest subterranean level under Option 1 would be approximately 30½ feet below the historically highest groundwater level.

Under Option 2, the lowest finished floor elevation of the northern portion of the parking garage would extend to an approximate elevation of 130.5 feet, corresponding to a maximum depth of 45½ feet below grade. The finished floor of the lowest subterranean level under Option 2 would be approximately 19½ feet below the historically highest groundwater level. The southern portion of the subterranean parking garage will only extend to an elevation of 164.5 feet, corresponding to approximately 11 feet below the existing grade. Therefore, the southern portion of the parking garage will remain above the historically highest groundwater level.

Due to the depth of the proposed subterranean levels relative to the historically highest groundwater level, the proposed structure will need to be designed to resist hydrostatic and uplift pressures based on the historically highest groundwater level. Therefore, it is recommended that the proposed structure, under both options, be supported on a mat foundation bearing on the underlying native soils, at the lowest level of the subterranean parking garage. For Option 2, the southern portion of the subterranean parking structure extending only one level below grade, may be supported on conventional foundations bearing in the underlying native soils. Where necessary, uplift anchors may be designed to provide resistance against the anticipated hydrostatic uplift pressures acting on the recommended mat foundations.

The proposed subterranean walls, under both options, may be designed for a drained condition for the section of walls constructed above the elevation of the historically highest groundwater level at 150.0 feet, provided a retaining wall subdrain is installed at this elevation. The section of wall extending below the historically highest groundwater level shall be designed for an undrained condition with full hydrostatic pressure.

For Option 2, the subterranean walls for the southern portion of the parking garage will extend only one level below grade, remaining above the historically highest groundwater level, and therefore, they

may be designed for a drained condition provided a retaining wall subdrain is provided behind the subterranean walls.

Excavation of the proposed subterranean levels will require shoring and temporary dewatering in order to achieve a dry and stable excavation. It is expected that a formal pre-construction temporary dewatering program consisting of wells or well-points will be required to lower the groundwater table prior to excavation of the subterranean level. The expected number and depths of well-points, expected flow rates, and expected pre-pumping time frames should be determined during a dewatering test program conducted by a qualified dewatering consultant. Once the temporary construction dewatering is discontinued, the water table will likely return to its current elevation.

The validity of the conclusions and design recommendations presented herein is dependant upon review of the geotechnical aspects of the proposed construction by this firm. The subsurface conditions described herein have been projected from borings on the site as indicated and should in no way be construed to reflect any variations which may occur between these borings or which may result from changes in subsurface conditions. Any changes in the design or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained herein should not be considered valid until reviewed and modified or reaffirmed subsequent to such review.

## FILL SOILS

The maximum depth of fill encountered on the site was 4 feet. It is anticipated that this material will be removed during excavation of the proposed subterranean levels.

## EXPANSIVE SOILS

The onsite earth materials are in the very low to moderate expansion range. The Expansion Index was found to be between 0 and 50 for representative bulk samples. Recommended reinforcing is provided in the "Foundation Design" and "Slab-On-Grade" sections of this report.

## WATER-SOLUBLE SULFATES

The portland cement portion of concrete is subject to attack when exposed to water-soluble sulfates. Usually the two most common sources of exposure are from soil and marine environments. The source of natural sulfate minerals in soils include the sulfates of calcium, magnesium, sodium, and potassium. When these minerals interact and dissolve in subsurface water, a sulfate concentration is created, which will react with exposed concrete. Over time sulfate attack will destroy improperly proportioned concrete well before the end of its intended service life.

The water-soluble sulfate content of the onsite geologic materials was tested by California Test 417. The water-soluble sulfate content was determined to be less than 0.1% percentage by weight for the soils tested. Based on American Concrete Institute (ACI) Standard 318-08, the sulfate exposure is considered to be negligible for geologic materials with less than 0.1%, and Type I cement may be utilized for concrete foundations in contact with the site soils.

## DEWATERING

It is recommended that a qualified dewatering consultant be retained during the design phase of the project. Temporary dewatering on this project will be necessary to lower the water table beneath the site and allow for the proposed excavations and construction to proceed. The expected number and

depths of well-points, expected flow rates, and expected pre-pumping time frames should be determined during a dewatering test program conducted by a qualified dewatering consultant.

It is anticipated that the well points will collect the majority of the water, however, even after pre-pumping, some free water may be encountered during excavation due to entrapment within cohesive lenses. Such water may be collected within the excavation through the use of french drains and sump pumps.

Pumping (yielding or vertical deflection) of the high-moisture content soils at the bottom of the excavation is expected to occur during operation of heavy equipment. Once the subgrade elevation has been established, angular minimum ¾-inch gravel should be placed and worked into the subgrade. The exact thickness of the gravel would be a trial and error procedure, and would be determined in the field. It would likely be on the order of 1 to 2 feet thick. The gravel will function as both a permeable material for the temporary dewatering system and as a stabilization material upon which heavy equipment may operate.

It is not recommended that rubber tire construction equipment attempt to operate directly on the subgrade soils prior to placing the gravel. Direct operation of rubber tire equipment on the soft subgrade soils will likely result in excessive disturbance to the soils, which in turn will result in a delay to the construction schedule since those disturbed soils would then have to be removed and properly recompacted. Extreme care should be utilized to place gravel as the subgrade becomes exposed.

If the soils become disturbed due to direct operation of heavy equipment, it is recommended that dry material be utilized to replace the likely wet, disturbed subgrade soils.

Once the temporary construction dewatering is discontinued, the water table will likely return to its current elevation. Since the elevation of the water table is higher than the proposed bottom of structure, hydrostatic forces on the walls and floor will result. It is the recommendation of this firm that the proposed development be designed to resist hydrostatic forces. Hydrostatic forces are addressed in the "Foundation Design" and "Retaining Wall Design" sections of this report.

## GRADING GUIDELINES

The following guidelines are provided for any miscellaneous compaction that may be required, such as retaining wall backfill or subgrade preparation.

### Site Preparation

All vegetation, existing fill, and soft or disturbed geologic materials should be removed from the areas to receive controlled fill. The excavated areas shall be carefully observed by the geotechnical engineer prior to placing compacted fill.

Subsequent to the indicated removals, the exposed grade shall be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted in excess of the minimum required comparative density.

### Compaction

All fill should be mechanically compacted in layers not more than 8 inches thick. All fill shall be compacted to at least 90 percent of the maximum laboratory density for the materials used. The

maximum density shall be determined by the laboratory operated by Geotechnologies, Inc. using test method ASTM D 1557-07 or equivalent.

Field observation and testing shall be performed by a representative of the geotechnical engineer during grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until a minimum of 90 percent compaction is obtained.

**Acceptable Materials**

The excavated onsite materials are considered satisfactory for reuse in the controlled fills as long as any debris and/or organic matter is removed. Any imported materials shall be observed and tested by the representative of the geotechnical engineer prior to use in fill areas. Imported materials should contain sufficient fines so as to be relatively impermeable and result in a stable subgrade when compacted. Any required import materials should consist of geologic materials with an expansion index of less than 50. The water-soluble sulfate content of the import materials should be less than 0.1% percentage by weight.

Imported materials should be free from chemical or organic substances which could effect the proposed development. A competent professional should be retained in order to test imported materials and address environmental issues and organic substances which might effect the proposed development.

**Utility Trench Backfill**

Utility trenches should be backfilled with controlled fill. The utility should be bedded with clean sands at least one foot over the crown. The remainder of the backfill may be onsite soil compacted to 90 percent of the laboratory maximum density. Utility trench backfill should be tested by representatives of this firm in accordance with ASTM D-1557-07.

**Weather Related Grading Considerations**

When rain is forecast all fill that has been spread and awaits compaction shall be properly compacted prior to stopping work for the day or prior to stopping due to inclement weather. These fills, once compacted, shall have the surface sloped to drain to an area where water can be removed.

Temporary drainage devices should be installed to collect and transfer excess water to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope.

Work may start again, after a period of rainfall, once the site has been reviewed by a representative of this office. Any soils saturated by the rain shall be removed and aerated so that the moisture content will fall within three percent of the optimum moisture content.

Surface materials previously compacted before the rain shall be scarified, brought to the proper moisture content and recompacted prior to placing additional fill, if considered necessary by a representative of this firm.

**Wet Soils**

The proposed subterranean levels will extend below the current groundwater level, therefore, it is anticipated that the soils which will be exposed at the bottom of the excavation will be well above the optimum moisture content.

Pumping (yielding or vertical deflection) of the high-moisture content soils at the bottom of the excavation may occur during operation of heavy equipment. Where pumping is encountered, angular minimum ¾-inch gravel should be placed and worked into the subgrade. The exact thickness of the gravel would be a trial and error procedure, and would be determined in the field. It would likely be on the order of 1 to 2 feet thick.

The gravel will help to densify the subgrade as well as function as a stabilization material upon which heavy equipment may operate. It is not recommended that rubber tire construction equipment attempt to operate directly on the pumping subgrade soils prior to placing the gravel. Direct operation of rubber tire equipment on the soft subgrade soils will likely result in excessive disturbance to the soils, which in turn will result in a delay to the construction schedule since those disturbed soils would then have to be removed and properly recompacted. Extreme care should be utilized to place gravel as the subgrade becomes exposed.

**Geotechnical Observations and Testing During Grading**

Geotechnical observations and testing during grading are considered to be a continuation of the geotechnical investigation. It is critical that the geotechnical aspects of the project be reviewed by representatives of Geotechnologies, Inc. during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during

the course of construction. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise this office at least twenty-four hours prior to any required site visit.

## FOUNDATION DESIGN

Due to the depth of the proposed subterranean levels relative to the historically highest groundwater level, the proposed structure will need to be designed to resist hydrostatic and uplift pressures based on the historically highest groundwater level. Therefore, it is recommended that the proposed structure, under both options, be supported on a mat foundation bearing on the underlying native soils, at the lowest level of the subterranean parking garage. For Option 2, the southern portion of the subterranean parking structure extending only one level below grade, maybe supported on conventional foundations bearing in the underlying native soils. Where necessary, uplift anchors may be designed to provide resistance against the anticipated hydrostatic uplift pressures acting on the recommended mat foundations.

## MAT FOUNDATIONS

The mat foundation may bear in the competent native soils expected to be exposed at the deepest subterranean level for both options. Based on information provided by the structural engineer, it is anticipated that the proposed mat foundation will impart an average bearing pressure of 1,300 pounds per square foot under Option 1, and an average bearing pressure of 1,480 pound per square foot under Option 2. These loads do not consider the self-weight of the mat foundation. These anticipated bearing pressures are well below the allowable bearing pressures given the size of the proposed mat foundation.

An allowable bearing pressure of 5,000 pounds per square foot may be utilized in the design of the proposed mat foundation. The mat foundation may be designed utilizing a modulus of subgrade reaction of 200 kips per cubic foot. The thickness of the mat foundation shall be designed by the project structural engineer. The bottom of the mat foundation should be a minimum of 18 inches in depth below the lowest adjacent grade at the perimeter of the structure.

In addition to the structural loads, the proposed foundation system shall be designed to resist the potential hydrostatic uplift pressure based on the elevation of historically highest groundwater level at 150.0 feet. The hydrostatic uplift pressure would be equivalent to 62.4 pounds per cubic foot times the elevation difference between the historically highest groundwater level and the bottom of the mat foundation. Where necessary, uplift anchors may be designed to provide resistance against the anticipated hydrostatic uplift pressures acting on the recommended mat foundations.

It is critical that proper waterproofing be provided below the base of the mat, particularly since a permanent dewatering system will not be provided. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A waterproofing consultant should be retained in order to recommend appropriate products and methods to waterproof below the mat. It is possible that the methane barrier would provide sufficient waterproofing, but this should be confirmed by a waterproofing consultant.

**Uplift Anchors**

Where necessary, uplift anchors may be designed to provide resistance against the anticipated hydrostatic uplift pressures acting on the recommended mat foundations. Uplift anchors shall be a minimum of 12 inches in diameter, and shall be embedded a minimum of 20 feet into the underlying

native soils. Preliminarily, it is assumed that pressure grouted anchors will be utilized. Uplift anchors may be designed using a frictional capacity of 1.5 kips per lineal foot.

**Lateral Design**

Resistance to lateral loading may be provided by friction acting at the base of mat foundations and by passive earth pressure. An allowable coefficient of friction of 0.3 may be used with the dead load forces.

Passive earth pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 300 pounds per cubic foot with a maximum earth pressure of 3,000 pounds per square foot. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. A one-third increase in the passive value may be used for wind or seismic loads.

**Foundation Settlement**

Settlement of the mat foundation system is expected to occur on initial application of loading. The maximum settlement is not expected to exceed ½ inch, and will occur below the heaviest loaded structural element. Differential settlement is not expected to exceed ¼ inch.

**CONVENTIONAL FOUNDATIONS**

As mentioned before, the southern portion of the first subterranean level under Option 2 will bear above the historically highest groundwater level, at an approximate depth of 11 feet below the existing grade. This portion of the subterranean garage may be supported by conventional

foundations bearing in native soils. Continuous foundations may be designed for a bearing capacity of 2,500 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

Column foundations may be designed for a bearing capacity of 3,000 pounds per square foot, and should be a minimum of 24 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

No bearing capacity increases are recommended. The bearing capacities indicated above are for the total of dead and frequently applied live loads, and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces.

Since the recommended bearing capacity is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

**Miscellaneous Foundations**

Conventional foundations for structures such as privacy walls or trash enclosures which will not be rigidly connected to the proposed structure may be deepened to bear in native soils. Continuous footings may be designed for a bearing capacity of 2,000 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material. No bearing capacity increases are recommended.

**Foundation Reinforcement**

All continuous foundations should be reinforced with a minimum of four #4 steel bars. Two should be placed near the top of the foundation, and two should be placed near the bottom.

**Lateral Design**

Resistance to lateral loading may be provided by friction acting at the base of conventional foundations and by passive earth pressure. An allowable coefficient of friction of 0.3 may be used with the dead load forces.

Passive geologic pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 300 pounds per cubic foot with a maximum earth pressure of 3,000 pounds per square foot. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. A one-third increase in the passive value may be used for wind or seismic loads.

**Foundation Settlement**

Settlement of the foundation system is expected to occur on initial application of loading. The maximum settlement for conventional foundations supporting a portion of the first subterranean level under Option 2 is expected to be 1 inch and occur below the heaviest loaded columns. Differential settlement between these conventional foundations, and the mat foundation supporting the rest of the structure, is not expected to exceed ½ inch.

**Foundation Observations**

It is critical that all foundation excavations are observed by a representative of this firm to verify penetration into the recommended bearing materials. The observation should be performed prior to the placement of reinforcement. Foundations should be deepened to extend into satisfactory geologic materials, if necessary. Foundation excavations should be cleaned of all loose soils prior to placing steel and concrete. Any required foundation backfill should be mechanically compacted, flooding is not permitted.

## RETAINING WALL DESIGN

It is anticipated that the proposed structure will require retaining walls up to 55½ feet in height under Option 1, and up to 45½ feet in height under Option 2. The proposed subterranean walls, under both options, may be designed for a drained condition for the section of walls constructed above the elevation of the historically highest groundwater level at 150.0 feet, provided a retaining wall subdrain is installed at this elevation. The section of wall extending below the historically highest groundwater level shall be designed for an undrained condition with full hydrostatic pressure.

For Option 2, the subterranean walls for the southern portion of the parking garage will extend only one level below grade, remaining above the historically highest groundwater level, and therefore, they may be designed for a drained condition provided a retaining wall subdrain is provided behind the subterranean walls. Retaining wall foundations may be designed using the foundation recommendations provided in the "Foundation Design" section of this report.

Cantilever retaining walls supporting a level backslope may be designed utilizing a triangular distribution of active earth pressure. Cantilever retaining walls may be designed utilizing the

following table. The lateral earth pressure recommended assumes that a permanent drainage system will be installed so that external water pressure will not be developed against the walls.

| Height of Retaining Wall | Cantilever Retaining Wall **with** Wall Subdrain System Triangular Distribution of Active Earth Pressure |
|---|---|
| Up to 15 feet | 30 pcf |

Restrained retaining walls may be designed utilizing a triangular distribution of at-rest earth pressure. Restrained retaining walls may be designed utilizing the following table:

| Height of Retaining Wall | Restrained Retaining Wall Above the Historically Highest Groundwater Level (150.0 ft EL) **with** Wall Subdrain System Triangular Distribution of At-Rest Earth Pressure | Restrained Retaining Wall Below the Historically Highest Groundwater Level (150.0 ft EL) **without** Wall Subdrain System Triangular Distribution of At-Rest Earth Pressure |
|---|---|---|
| Up to 60 feet | 72.5 pcf | 100 pcf (including hydrostatic pressure) |

Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic, or adjacent structures. It is anticipated that the storage facility neighboring the site to the west will surcharge the proposed garage walls under both options. Information regarding the depth, configuration and loading of adjacent foundations will be required in order to determine surcharge loading.

In addition to the recommended earth pressure, the upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100

pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected.

**Dynamic (Seismic) Earth Pressure**

Cantilever retaining walls exceeding 12 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A triangular pressure distribution should be utilized for the additional seismic loads, with an equivalent fluid pressure of 20 pounds per cubic foot.

**Retaining Wall Drainage**

Retaining wall subdrains may consist of four-inch diameter perforated pipes, placed with perforations facing down. The pipe shall be encased in at least one-foot of gravel around the pipe. The gravel may consist of three-quarter inch to one inch crushed rocks.

A compacted fill blanket or other seal shall be provided at the surface. Retaining walls may be backfilled with gravel adjacent to the wall to within 2 feet of the ground surface. The onsite earth materials are acceptable for use as retaining wall backfill as long as they are compacted to a minimum of 90 percent of the maximum density as determined by ASTM D 1557-07 or equivalent.

Certain types of subdrain pipe are not acceptable to the various municipal agencies, it is recommended that prior to purchasing subdrainage pipe, the type and brand is cleared with the proper municipal agencies. Subdrainage pipes should outlet to an acceptable location.

Where retaining walls are to be constructed adjacent to property lines there is usually not enough space for placement of a standard perforated pipe and gravel drainage system. Under these circumstances, the use of a flat geotextile drainage product is acceptable. Some municipalities do not approve the use of flat-drainage products. The use of such a product should be researched with the building official.

As an alternative, omission of one-half of a block at the back of the wall on eight foot centers is an acceptable method of draining the walls. The resulting void would be filled with gravel. A collector is placed within the gravel which directs collected waters through the wall to a sump or standard pipe and gravel system constructed under the slab.

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. If a drainage system is not provided, the walls should be designed to resist an external hydrostatic pressure due to water in addition to the lateral earth pressure. In any event, it is recommended that retaining walls be waterproofed.

**Waterproofing**

Moisture effecting retaining walls is one of the most common post construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water inside the building. Efflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts such as gypsum, calcite, or common salt. Efflorescence is common to retaining walls and does not effect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection to below grade walls.

**Retaining Wall Backfill**

Any required backfill should be mechanically compacted in layers not more than 8 inches thick, to at least 90 percent of the maximum density obtainable by the ASTM Designation D 1557-07 method of compaction. Flooding should not be permitted. Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

**Sump Pump Design**

The purpose of the recommended retaining wall backdrainage system is to relieve hydrostatic pressure for retaining walls bearing above the historical highest groundwater level, where the only water which could effect the proposed retaining walls would be irrigation waters and precipitation.

Based on these considerations the retaining wall backdrainage system is not expected to experience an appreciable flow of water, and in particular, no groundwater will effect it. However, for the purposes of design, a flow of 5 gallons per minute may be assumed.

## TEMPORARY EXCAVATIONS

It is anticipated that excavations up to 60 feet in vertical height will be required for the subterranean garage under Option 1, while excavations up to 50 feet in vertical height will be required for the subterranean garage under Option 2. The excavations are expected to expose fill and dense native soils, which are suitable for vertical excavations up to 5 feet where not surcharged by adjacent traffic or structures.

Where sufficient space is available, temporary unsurcharged embankments could be cut at a uniform 1:1 (h:v) slope gradient in its entirety to a maximum height of 20 feet. A uniform sloped excavation does not have a vertical component.

Where sloped embankments are utilized, the tops of the slopes should be barricaded to prevent vehicles and storage loads near the top of slope within a horizontal distance equal to the depth of the excavation. If the temporary construction embankments are to be maintained during the rainy season, berms are strongly recommended along the tops of the slopes to prevent runoff water from entering the excavation and eroding the slope faces. Water should not be allowed to pond on top of the excavation nor to flow towards it.

### Excavation Observations

It is critical that the soils exposed in the cut slopes are observed by a representative of Geotechnologies, Inc. during excavation so that modifications of the slopes can be made if variations in the geologic material conditions occur. Many building officials require that temporary excavations should be made during the continuous observations of the geotechnical engineer. All excavations should be stabilized within 30 days of initial excavation.

## SHORING DESIGN

The following information on the design and installation of the shoring is as complete as possible at this time. It is suggested that Geotechnologies, Inc. review the final shoring plans and specifications prior to bidding or negotiating with a shoring contractor.

One method of shoring would consist of steel soldier piles, placed in drilled holes and backfilled with concrete. The soldier piles may be designed as cantilevers or laterally braced utilizing drilled tied-back anchors or raker braces.

### Soldier Piles

Drilled cast-in-place soldier piles should be placed no closer than 2 diameters on center. The minimum diameter of the piles is 18 inches. Structural concrete should be used for the soldier piles below the excavation; lean-mix concrete may be employed above that level. As an alternative, lean-mix concrete may be used throughout the pile where the reinforcing consists of a wideflange section. The slurry must be of sufficient strength to impart the lateral bearing pressure developed by the wideflange section to the earth materials. For design purposes, an allowable passive value for the earth materials below the bottom plane of excavation, may be assumed to be 500 pounds per square foot per foot. To develop the full lateral value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed earth materials.

Groundwater was encountered during exploration at a depth of 35 feet below grade. Proposed piles are to be well in excess of 35 feet in depth and will, therefore, encounter water. Piles placed below the water level require the use of a tremie to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 10 inches with a hopper at the

top. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete. The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength p.s.i. of 1,000 over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

Casing may be required should caving be experienced in the saturated earth materials. If casing is used, extreme care should be employed so that the pile is not pulled apart as the casing is withdrawn. At no time should the distance between the surface of the concrete and the bottom of the casing be less than 5 feet.

The frictional resistance between the soldier piles and retained earth material may be used to resist the vertical component of the anchor load. The coefficient of friction may be taken as 0.3 based on uniform contact between the steel beam and lean-mix concrete and retained earth. The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The

downward capacity may be determined using a frictional resistance of 450 pounds per square foot. The minimum depth of embedment for shoring piles is 5 feet below the bottom of the footing excavation or 7 feet below the bottom of excavated plane whichever is deeper.

**Lagging**

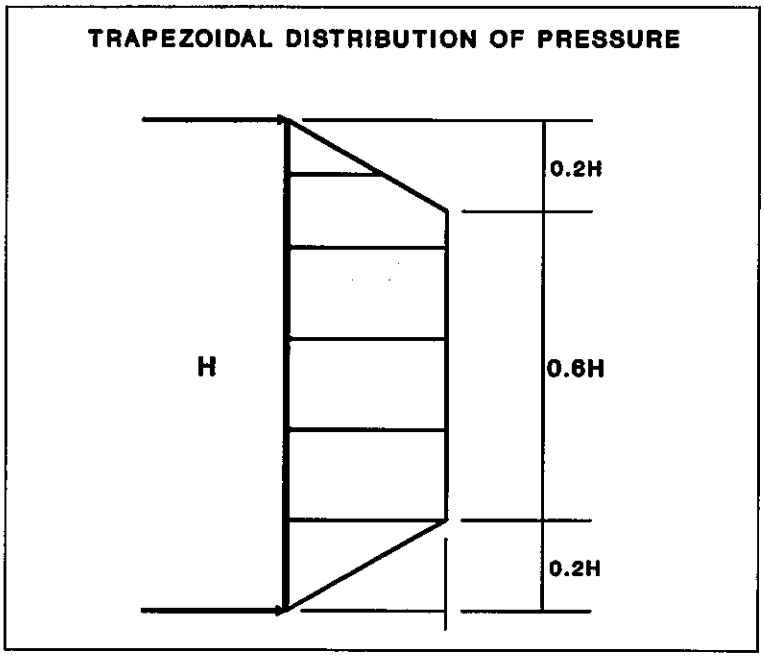
Soldier piles and anchors should be designed for the full anticipated pressures. Due to arching in the earth materials, the pressure on the lagging will be less. It is recommended that the lagging should be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot. It is recommended that a representative of this firm observe the installation of lagging to insure uniform support of the excavated embankment.

**Lateral Pressures**

Cantilevered shoring supporting a level backslope may be designed utilizing a triangular distribution of pressure as indicated in the following table:

| HEIGHT OF SHORING "H" (feet) | EQUIVALENT FLUID PRESSURE (pounds per cubic foot) |
|---|---|
| Up to 23 | 28 |
| 23 to 30 | 35 |
| 30 to 40 | 41 |
| 40 to 50 | 45 |
| 50 to 60 | 47 |

A trapezoidal distribution of lateral earth pressure would be appropriate where shoring is to be restrained at the top by bracing or tie backs, with the trapezoidal distribution as shown in the diagram below.




Restrained shoring supporting a level backslope may be designed utilizing a trapezoidal distribution of pressure as indicated in the following table:

| HEIGHT OF SHORING "H" (feet) | DESIGN SHORING FOR (Where H is the height of the wall) |
|---|---|
| Up to 23 | 18H |
| 23 to 30 | 22H |
| 30 to 40 | 26H |
| 40 to 50 | 29H |
| 50 to 60 | 30H |

Additional active pressure should be applied where the shoring will be surcharged by adjacent traffic or structures. It is anticipated that temporary shoring along the western property line will be surcharged by the existing storage facility. Where a combination of sloped embankment and shoring is utilized, the pressure will be greater and must be determined for each combination.

**Tieback Anchor Design and Installation**

Tieback anchors may be used to resist lateral loads. Friction anchors are recommended. For design purposes, it may be assumed that the active wedge is defined by a plane drawn 35 degrees with the vertical through the bottom plane of the excavation. Friction anchors should extend a minimum of 20 feet beyond the potentially active wedge.

Tieback anchors may be installed between 20 and 40 degrees below the horizontal. Caving should be anticipated within saturated granular materials. Where caving occurs the following provisions should be implemented in order to minimize such caving. The anchor shafts should be filled with concrete by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. In order to minimize the chances of caving, it is recommended that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

Drilled friction anchors constructed without utilizing pressure-grouting techniques may be designed for a skin friction of 500 pounds per square foot. Depending on the techniques utilized, and the experience of the contractor performing the installation, it is anticipated that a skin friction of 2,000 pounds per square foot could be utilized for post-grouted anchors, provided the design does not rely on end-bearing plates to provide the necessary capacity. Only the frictional resistance developed

beyond the active wedge should be utilized in resisting lateral loads. Anchors should be placed at least 6 feet on center to be considered isolated.

**Tieback Anchor Testing**

At least 10 percent of the anchors should be selected for "Quick", 200 percent tests. It is recommended that at least three anchors be selected for 24-hour, 200 percent tests. It is recommended that the 24-hour tests be performed prior to installation of additional tiebacks. The purpose of the 200 percent tests is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Where satisfactory tests are not achieved on these initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

The total deflection during the 24-hour 200 percent test should not exceed 12 inches. During the 24-hour tests, the anchor deflection should not exceed 0.75 inches measured after the 200 percent test load is applied.

For the "quick" 200 percent tests, the 200 percent test load should be maintained for 30 minutes. The total deflection of the anchor during the 200 percent quick tests should not exceed 12 inches; the deflection after the 200 percent load has been applied should not exceed 0.25 inch during the 30-minute period.

All of the remaining anchors should be tested to at least 150 percent of design load. The total deflection during the 150 percent test should not exceed 12 inches. The rate of creep under the 150 percent test load should not exceed 0.1 inch over a 15 minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. This should be verified by rechecking the load in the anchor. The load should be within 10 percent of the design load. Where satisfactory tests are not attained, the anchor diameter and/or length should be increased or additional anchors installed until satisfactory test results are obtained. Where post-grouted anchors are utilized, additional post-grouting may be required. The installation and testing of the anchors should be observed by a representative of the soils engineer.

**Raker Brace Foundations**

Rakers may be utilized to brace the soldier piles in lieu of tieback anchors. The raker bracing could be supported laterally by temporary concrete footings (deadmen). An allowable bearing pressure of 2,500 pounds per square foot may be used for the design a raker foundations. This bearing pressure is based on a raker foundation a minimum of 24 inches in width and length as well as 18 inches in depth. The base of the raker foundations should be horizontal. Care should be employed in the positioning of raker foundations so that they do not interfere with the foundations for the proposed structure.

**Deflection**

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. It is recommended that the shoring be designed for a maximum lateral deflection of ½ inch where a structure is within a 1:1 (h:v) plane projected up from the base of the excavation. A maximum deflection of 1-inch has been allowed provided there are no structures within a 1:1 (h:v) plane drawn upward from the base of the excavation. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement

of adjacent buildings and other improvements. If desired to reduce the deflection, a greater active pressure could be used in the shoring design.

**Monitoring**

Because of the depth of the excavation, some mean of monitoring the performance of the shoring system is suggested. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all soldier piles and the lateral movement along the entire lengths of selected soldier piles. Also, some means of periodically checking the load on selected anchors will be necessary, where applicable.

Some movement of the shored embankments should be anticipated as a result of the relatively deep excavation. It is recommended that photographs of the existing buildings on the adjacent properties be made during construction to record any movements for use in the event of a dispute.

**Shoring Observations**

It is critical that the installation of shoring is observed by a representative of Geotechnologies, Inc. Many building officials require that shoring installation should be performed during continuous observation of a representative of the geotechnical engineer. The observations insure that the recommendations of the geotechnical report are implemented and so that modifications of the recommendations can be made if variations in the geologic material or groundwater conditions warrant. The observations will allow for a report to be prepared on the installation of shoring for the use of the local building official, where necessary.

## SLABS ON GRADE

### Concrete Slabs-on Grade

Under Option 2, a conventional concrete slab-on-grade may be designed for the southern potion of the first subterranean level that will bear above the historically highest groundwater level. Conventional concrete floor slabs should be a minimum of 5 inches in thickness. Slabs-on-grade should be cast over undisturbed native soils or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent of the maximum dry density.

Outdoor concrete flatwork should be a minimum of 4 inches in thickness. Outdoor concrete flatwork should be cast over undisturbed native soils or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent of the maximum dry density.

### Design Of Slabs That Receive Moisture-Sensitive Floor Coverings

Geotechnologies, Inc. does not practice in the field of moisture vapor transmission evaluation and mitigation. Therefore it is recommended that a qualified consultant be engaged to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The qualified consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure.

Where dampness would be objectionable, it is recommended that the floor slabs should be waterproofed. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection for concrete slabs-on-grade.

All concrete slabs-on-grade should be supported on vapor retarder. The design of the slab and the installation of the vapor retarder should comply with ASTM E 1643-98 and ASTM E 1745-97 (Reapproved 2004). Where a vapor retarder is used, a low-slump concrete should be used to minimize possible curling of the slabs. The barrier can be covered with a layer of trimmable, compactible, granular fill, where it is thought to be beneficial. See ACI 302.2R-32, Chapter 7 for information on the placement of vapor retarders and the use of a fill layer.

**Concrete Crack Control**

The recommendations presented in this report are intended to reduce the potential for cracking of concrete slabs-on-grade due to settlement. However even where these recommendations have been implemented, foundations, stucco walls and concrete slabs-on-grade may display some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer.

Complete removal of the existing fill soils beneath outdoor flatwork such as walkways or patio areas, is not required, however, due to the rigid nature of concrete, some cracking, a shorter design life and increased maintenance costs should be anticipated. In order to provide uniform support beneath the flatwork it is recommended that a minimum of 12 inches of the exposed subgrade beneath the flatwork be scarified and recompacted to 90 percent relative compaction.

**Slab Reinforcing**

Concrete slabs-on-grade and outdoor flatwork should be reinforced with a minimum of #3 steel bars on 18-inch centers each way.

**PAVEMENTS**

Prior to placing paving, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 95 percent of the maximum density as determined by ASTM D 1557-07. The client should be aware that removal of all existing fill in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs. The following pavement sections are recommended:

| Service | Asphalt Pavement Thickness Inches | Base Course Inches |
|---|---|---|
| Passenger Cars (TI=4) | 3 | 4 |
| Moderate Truck (TI=6) | 4 | 6 |

Aggregate base should be compacted to a minimum of 95 percent of the ASTM D 1557-07 laboratory maximum dry density. Base materials should conform with Sections 200-2.2 or 200-2.4 of the "Standard Specifications for Public Works Construction", (Green Book), latest edition.

A subgrade modulus of 100 pounds per cubic inch may be assumed for design of concrete paving. Concrete paving shall be a minimum of 6 inches in thickness, and shall be underlain by 4 inches of aggregate base. For standard crack control maximum expansion joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended.

## SITE DRAINAGE

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage, with the exception of any required to disposed of onsite by stormwater regulations, should be collected and transferred to the street in non-erosive drainage devices. The proposed structure should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within five feet of the building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located within a distance equal to the depth of a retaining wall should be sealed to prevent moisture adversely effecting the wall. Planters which are located within five feet of a foundation should be sealed to prevent moisture effecting the earth materials supporting the foundation.

## STORMWATER DISPOSAL

Recently regulatory agencies have been requiring the disposal of a certain amount of stormwater generated on a site by infiltration into the site soils. Increasing the moisture content of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. This means that any overlying structure, including buildings, pavements and concrete flatwork, could sustain damage due to saturation of the subgrade soils. Structures serviced by subterranean levels could be adversely impacted by stormwater disposal by increasing the design fluid pressures on retaining walls and causing leaks in the walls. Proper site drainage is critical to the performance of any structure in the built environment.

In the opinion of this firm, infiltration of stormwater into site soils is not advisable for the project, primarily due to the current groundwater elevation relative to the proposed subterranean garage grade under both options. Additionally, the footprint of the proposed structure does not allow typical setbacks required between infiltration areas and existing structures and property lines.

Where percolation of stormwater into the subgrade soils is not advisable, some building officials have allowed the stormwater to be filtered through soils in planter areas. Once the water has been filtered through a planter it may be released into the storm drain system. It is recommended that overflow pipes are incorporated into the design of the discharge system in the planters to prevent flooding. In addition, the planters shall be sealed and waterproofed to prevent leakage. Please be advised that adverse impact to landscaping and periodic maintenance may result due to excessive water and contaminates discharged into the planters.

Another acceptable alternative according to the same building officials, is to create a filtration vault. The vault shall be a concrete structure, backfilled with earth materials. The collected runoff may be

discharged into the vault and filtered through the earth materials. The filtered water may be pumped or discharged into the storm drain system. Overflow pipes shall be incorporated into the design of the filtration vault for discharge of runoff in excess of the SUSMP requirement. It is anticipated that periodic maintenance of the filtration vaults and sump pumps will be required.

It is recommended that the design team including the structural engineer, waterproofing consultant, plumbing engineer, and landscape architect be consulted in regards to the design and construction of filtration systems. Please be advised that stormwater infiltration and treatment is a relatively new requirement by the various Cities and has been subject to change without notice.

## DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Building Official is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

## CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or

recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnologies, Inc. at least twenty-four hours prior to any required site visit.

If conditions encountered during construction appear to differ from those disclosed herein, notify Geotechnologies, Inc. immediately so the need for modifications may be considered in a timely manner.

It is the responsibility of the contractor to ensure that all excavations and trenches are properly sloped or shored. All temporary excavations should be cut and maintained in accordance with applicable OSHA rules and regulations.

## EXCAVATION CHARACTERISTICS

The exploration performed for this investigation is limited to the geotechnical excavations described. Direct exploration of the entire site would not be economically feasible. The owner, design team and contractor must understand that differing excavation and drilling conditions may be encountered based on boulders, gravel, oversize materials, groundwater and many other conditions. Fill materials, especially when they were placed without benefit of modern grading codes, regularly contain materials which could impede efficient grading and drilling. Southern California sedimentary bedrock is known to contain variable layers which reflect differences in depositional environment. Such layers may include abundant gravel, cobbles and boulders. Similarly bedrock can contain concretions. Concretions are typically lenticular and follow the bedding. They are formed by mineral deposits. Concretions can be very hard. Excavation and drilling in these areas may require full size equipment

and coring capability. The contractor should be familiar with the site and the geologic materials in the vicinity.

## CLOSURE AND LIMITATIONS

The purpose of this report is to aid in the design and completion of the described project. Implementation of the advice presented in this report is intended to reduce certain risks associated with construction projects. The professional opinions and geotechnical advice contained in this report are sought because of special skill in engineering and geology and were prepared in accordance with generally accepted geotechnical engineering practice. Geotechnologies, Inc. has a duty to exercise the ordinary skill and competence of members of the engineering profession. Those who hire Geotechnologies, Inc. are not justified in expecting infallibility, but can expect reasonable professional care and competence.

The scope of the geotechnical services provided did not include any environmental site assessment for the presence or absence of organic substances, hazardous/toxic materials in the soil, surface water, groundwater, or atmosphere, or the presence of wetlands.

Proper compaction is necessary to reduce settlement of overlying improvements. Some settlement of compacted fill should be anticipated. Any utilities supported therein should be designed to accept differential settlement. Differential settlement should also be considered at the points of entry to the structure.

If corrosion sensitive improvements are planned, it is recommended that a comprehensive corrosion study should be commissioned. The study will develop recommendations to avoid premature corrosion of buried pipes and concrete structures in direct contact with the soils.

## GEOTECHNICAL TESTING

### Classification and Sampling

The soil is continuously logged by a representative of this firm and classified by visual examination in accordance with the Unified Soil Classification system. The field classification is verified in the laboratory, also in accordance with the Unified Soil Classification System. Laboratory classification may include visual examination, Atterberg Limit Tests and grain size distribution. The final classification is shown on the excavation logs.

Samples of the geologic materials encountered in the exploratory excavations were collected and transported to the laboratory. Undisturbed samples of soil are obtained at frequent intervals. Unless noted on the excavation logs as an SPT sample, samples acquired while utilizing a hollow-stem auger drill rig are obtained by driving a thin-walled, California Modified Sampler with the aid of an automatic trip hammer. The soil is retained in brass rings of 2.50 inches outside diameter and 1.00 inch in height. The central portion of the samples are stored in close fitting, waterproof containers for transportation to the laboratory. Samples noted on the excavation logs as SPT samples are obtained in accordance with ASTM D 1586-08. Samples are retained for 30 days after the date of the geotechnical report.

### Moisture and Density Relationships

The field moisture content and dry unit weight are determined for each of the undisturbed soil samples, and the moisture content is determined for SPT samples by ASTM D 4959-07 or ASTM D 4643-08. This information is useful in providing a gross picture of the soil consistency between exploration locations and any local variations. The dry unit weight is determined in pounds per cubic

foot and shown on the "Excavation Logs", A-Plates. The field moisture content is determined as a percentage of the dry unit weight.

**Direct Shear Testing**

Shear tests are performed by ASTM D 3080-04 with a strain controlled, direct shear machine manufactured by Soil Test, Inc. or a Direct Shear Apparatus manufactured by GeoMatic, Inc. The rate of deformation is approximately 0.025 inches per minute. Each sample is sheared under varying confining pressures in order to determine the Mohr-Coulomb shear strength parameters of the cohesion intercept and the angle of internal friction. Samples are generally tested in an artificially saturated condition. Depending upon the sample location and future site conditions, samples may be tested at field moisture content. The results are plotted on the "Shear Test Diagram," B-Plates.

ASTM 3080-04 limits the particle size to 10 percent of the diameter of the direct shear test specimen. The sheared sample is inspected by the laboratory technician running the test. The inspection is performed by splitting the sample along the sheared plane and observing the soils exposed on both sides. Where oversize particles are observed in the shear plane, the results are discarded and the test run again with a fresh sample.

**Consolidation Testing**

Settlement predictions of the soil's behavior under load are made on the basis of the consolidation tests ASTM D 2435-04. The consolidation apparatus is designed to receive a single one-inch high ring. Loads are applied in several increments in a geometric progression, and the resulting deformations are recorded at selected time intervals. Porous stones are placed in contact with the top and bottom of each specimen to permit addition and release of pore fluid. Samples are generally

tested at increased moisture content to determine the effects of water on the bearing soil. The normal pressure at which the water is added is noted on the drawing. Results are plotted on the "Consolidation Test," C-Plates.

**Expansion Index Testing**

The expansion tests performed on the remolded samples are in accordance with the Expansion Index testing procedures, as described in the ASTM D4829-08. The soil sample is compacted into a metal ring at a saturation degree of 50 percent. The ring sample is then placed in a consolidometer, under a vertical confining pressure of 1 lbf/square inch and inundated with distilled water. The deformation of the specimen is recorded for a period of 24 hour or until the rate of deformation becomes less than 0.0002 inches/hour, whichever occurs first. The expansion index, EI, is determined by dividing the difference between final and initial height of the ring sample by the initial height, and multiplied by 1,000. Results may be found in Plate D.

**Laboratory Compaction Characteristics**

The maximum dry unit weight and optimum moisture content of a soil are determined by use of ASTM D 1557-07. A soil at a selected moisture content is placed in five layers into as mold of given dimensions, with each layer compacted by 25 blows of a 10 pound hammer dropped from a distance of 18 inches subjecting the soil to a total compactive effort of about 56,000 pounds per cubic foot. The resulting dry unit weight is determined. The procedure is repeated for a sufficient number of moisture contents to establish a relationship between the dry unit weight and the water content of the soil. The data when plotted, represent a curvilinear relationship know as the compaction curve. The values of optimum moisture content and modified maximum dry unit weight are determined from the compaction curve. Results may be found in Plate D.

**Grain Size Distribution**

These tests cover the quantitative determination of the distribution of particle sizes in soils. Sieve analysis is used to determine the grain size distribution of the soil larger than the Number 200 sieve. ASTM D 422-63 (Reapproved 2007) is used to determine particle sizes smaller than the Number 200 sieve. The grain size distributions are plotted on the E-Plates presented in the Appendix of this report.

**Atterberg Limits**

ASTM D 4318-05 is used to determine the liquid limits, plastic limits, and plasticity index of a soil. These test methods are use to characterize the fine grained fractions of the soil. Results from Atterberg Limits tests are presented in Plate F of this report.

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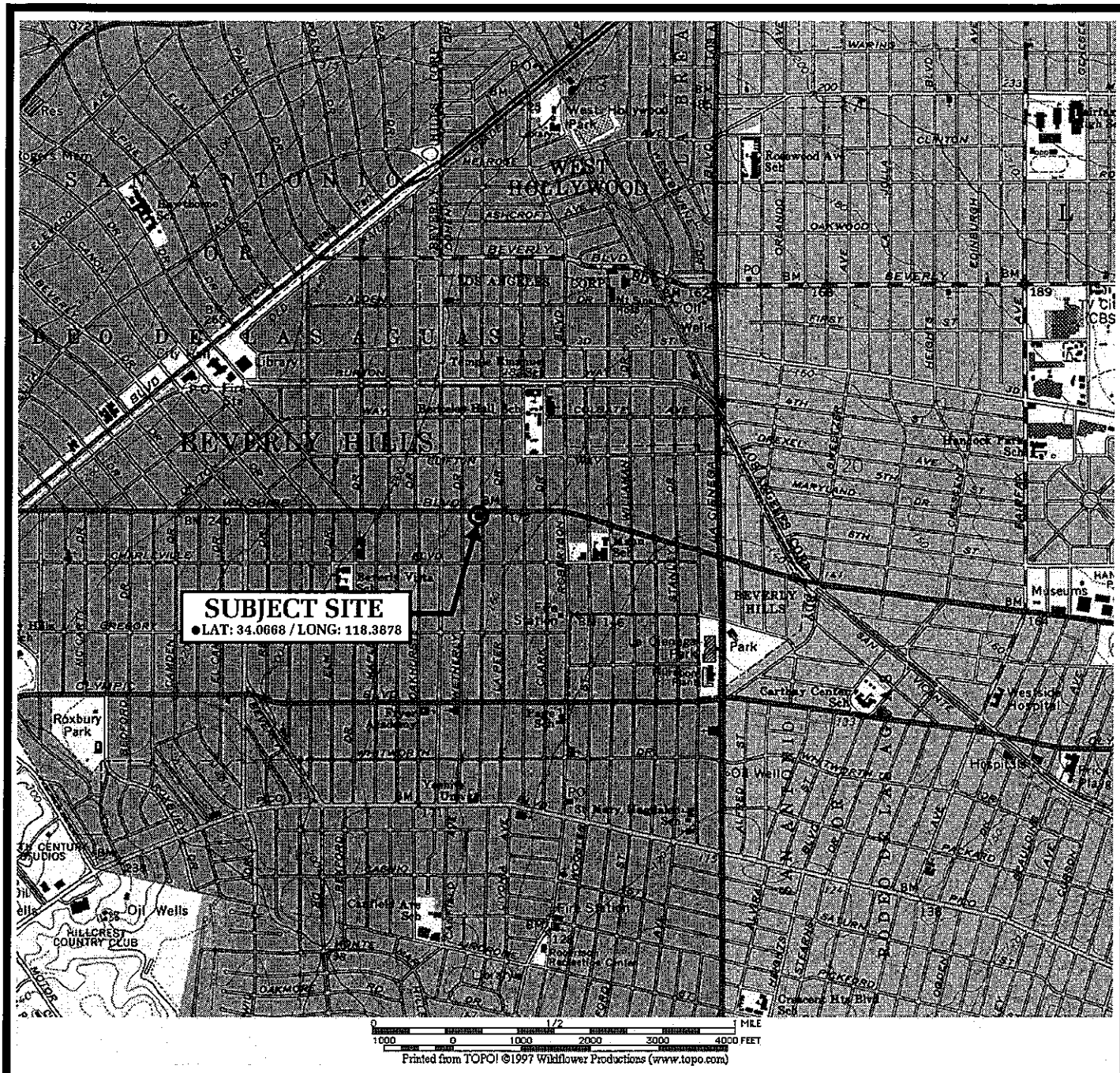


**REFERENCE:** U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, BEVERLY HILLS, CA QUADRANGLE

# VICINITY MAP

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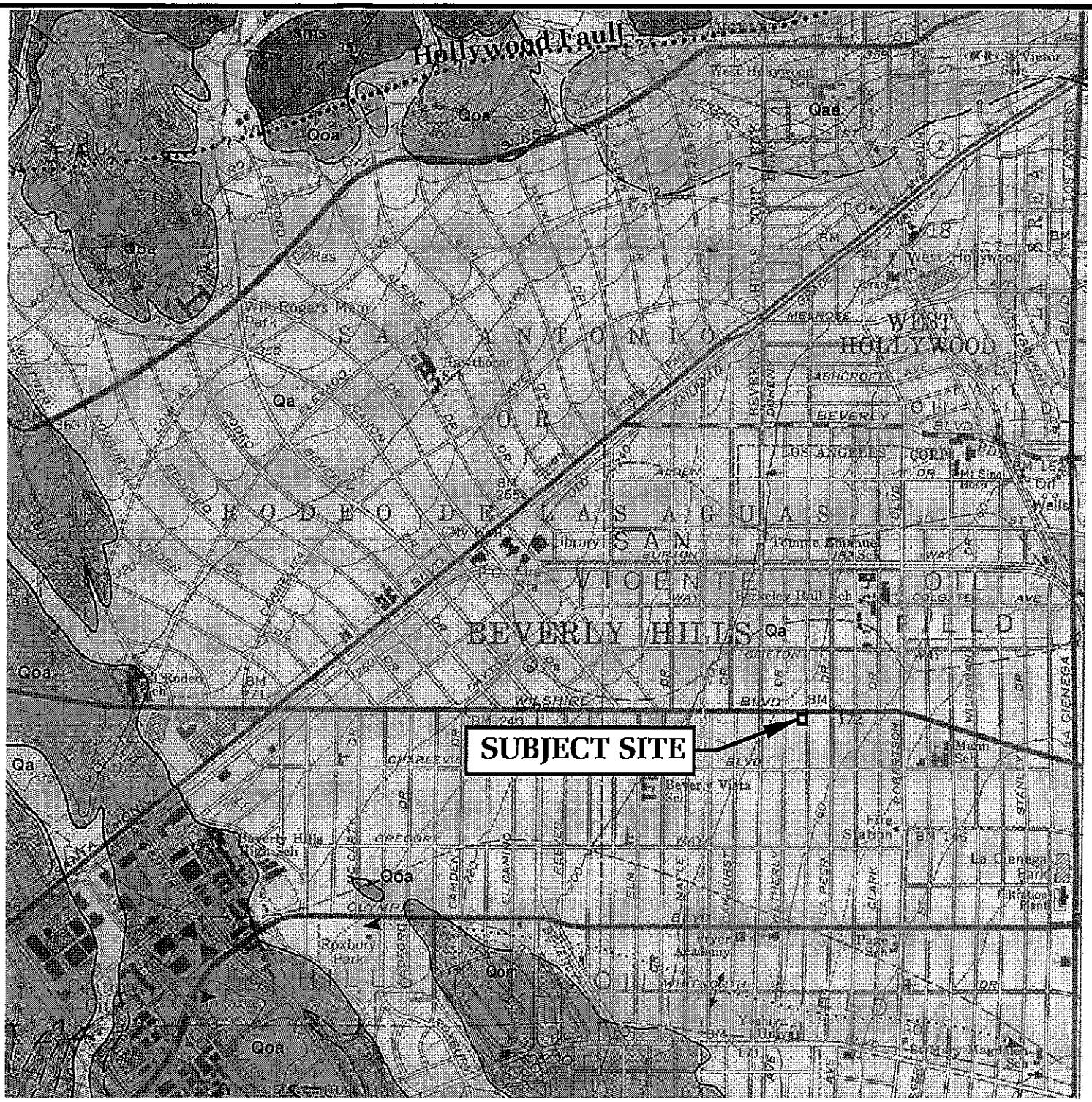
*Consulting Geotechnical Engineers*

**9000 WILSHIRE, LLC**

**FILE NO. 20256**




**LEGEND**

SCALE IN FEET: 0 500 1000 2000

**Qa:** Surficial Sediments - alluvial gravel, sand, and silt-clay, derived mostly from Santa Monica Mountains; includes gravel and sand of stream channels

**Qae:** Older Surficial Sediments - Alluvial fan sediments of granitic sand at West Hollywood

**Qoa:** Older Surficial Sediments - older alluvium of gray to light brown, pebble gravel, sand and silt-clay derived from Santa Monica Mountains; slightly consolidated

**Qom:** Shallow Marine Sediments - Marine deposists of Hoots 1931; light gray to light brown sand, pebbly sand, and silt

**sms:** Santa Monica Slate - dark bluish gray slate-phyllite, weathers brown; cleavage parallel to bedding; metamorphosed from slate possibly in part from grawacke; fine grained, composed of mica, quartz, and feldspar

——••••? Fault - dashed where indefinite or inferred, dotted whre concealed, queried where existence is doubtful

REFERENCE: DIBBLEE, T.W., (1991), GEOLOGIC MAP OF THE BEVERLY HILLS AND VAN NUYS (SOUTH 1/2) QUADRANGLES, MAP #DF-31

# LOCAL GEOLOGIC MAP

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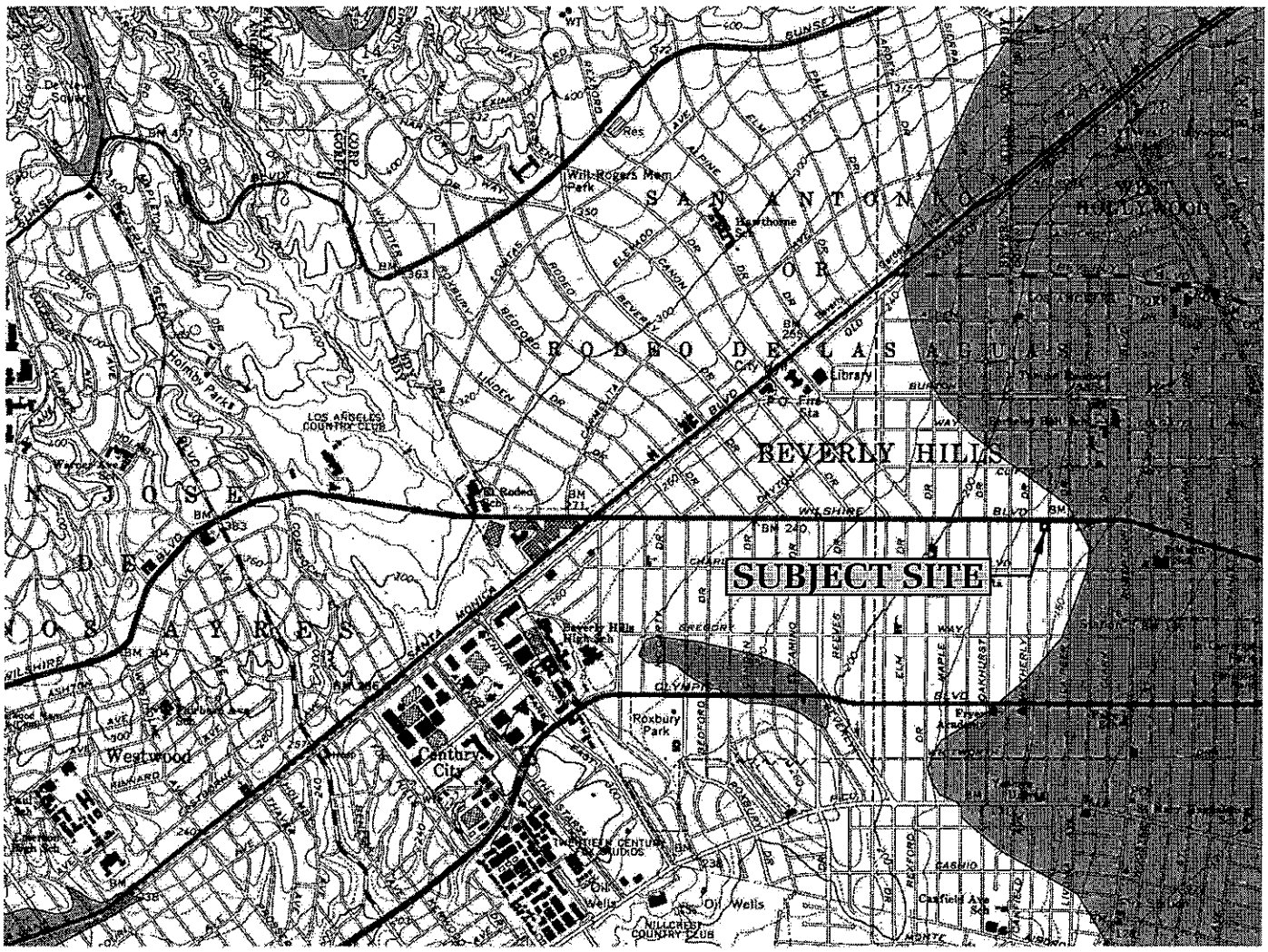
**FILE NO. 20256**




1 .5 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

N

LIQUEFACTION AREA

REFERENCE: SEISMIC HAZARD ZONES, BEVERLY HILLS QUADRANGLE OFFICIAL MAP (CDMG, 1999)

# SEISMIC HAZARD ZONE MAP

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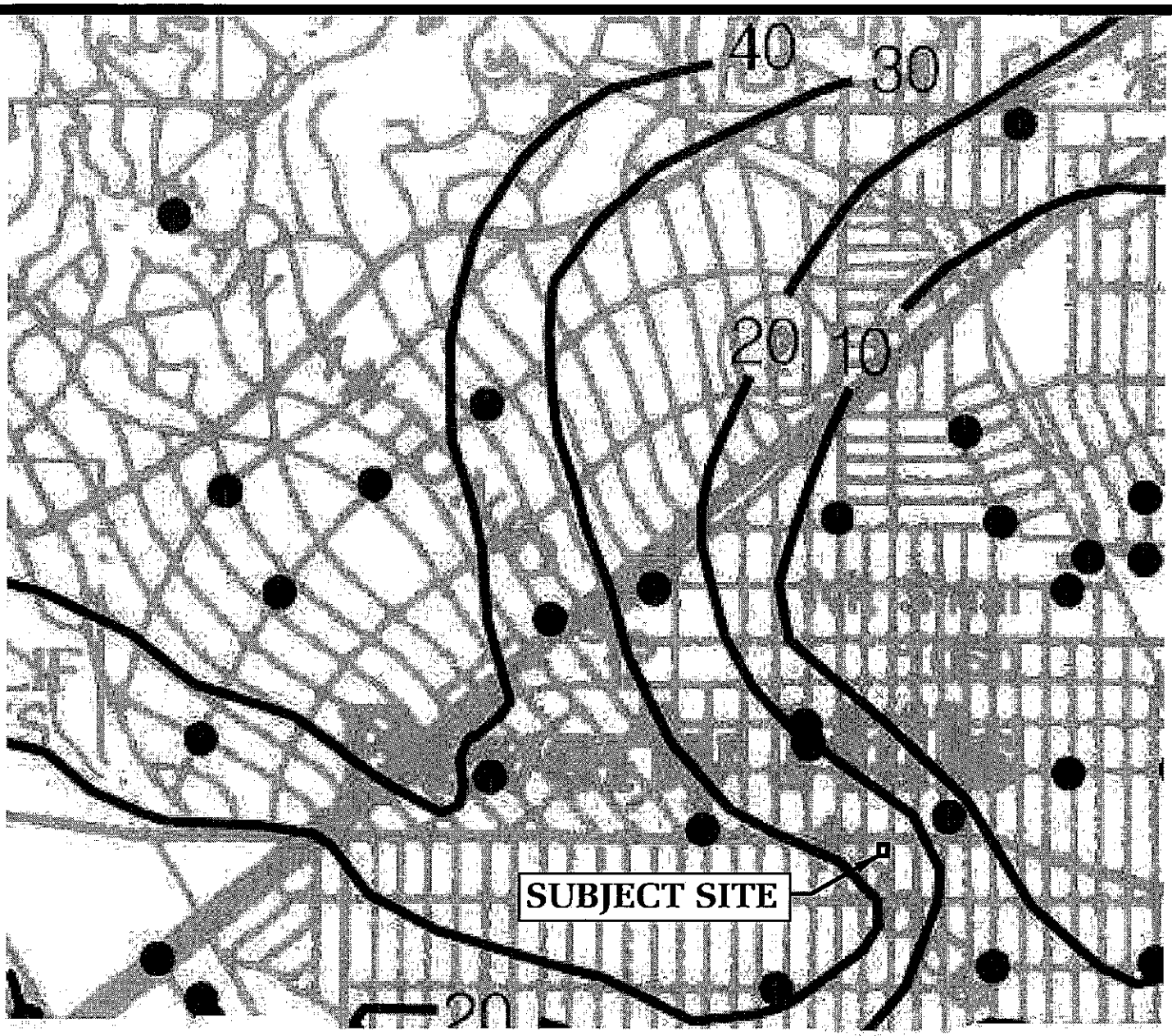


20 Depth to groundwater in feet

REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 023
BEVERLY HILLS 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2005)

# HISTORICALLY HIGHEST GROUNDWATER LEVELS

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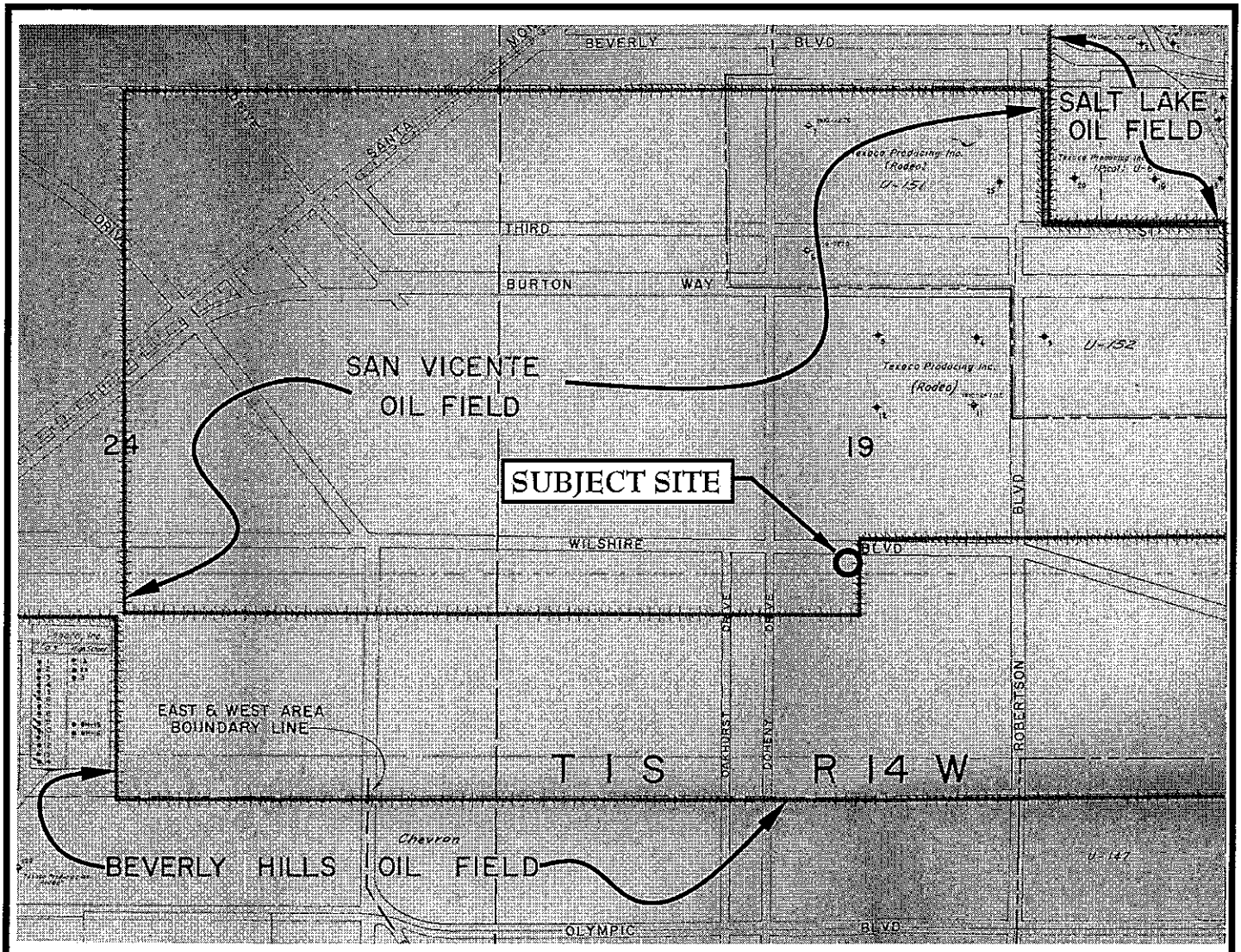


SCALE IN FEET

0 250 500 1000

## LEGEND

- PLUGGED AND ABANDONED DRY HOLE
- COMPLETED - OIL
- IDDLE - OIL
- PLUGGED AND ABANDONED - OIL

REFERENCE: STATE OF CALIFORNIA, DEPARTMENT OF CONSERVATION. MAP 117, 2001

# OIL WELL LOCATION MAP

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CONSULTING GEOTECHNICAL ENGINEERS

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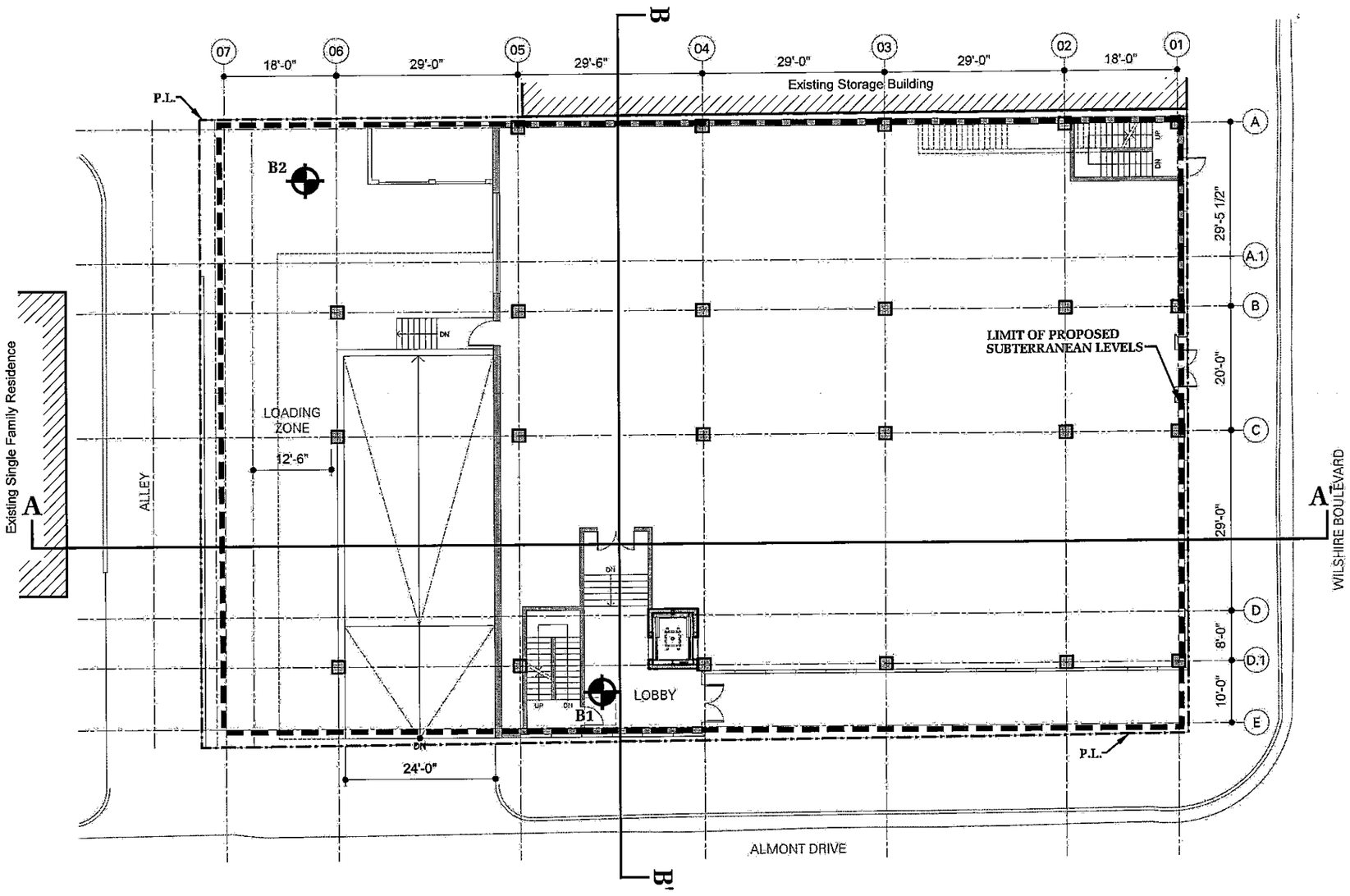
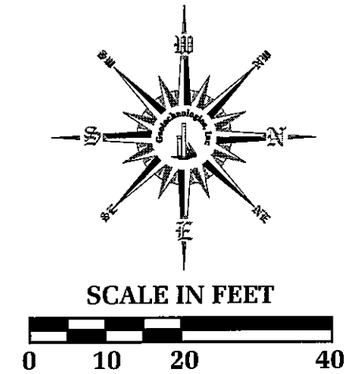



## LEGEND

B2 — LOCATION & NUMBER OF BORING

B — B' CROSS SECTION

REFERENCE: FIRST FLOOR PLAN BY NEIL M. DENARI ARCHITECTS DATED 12/27/11

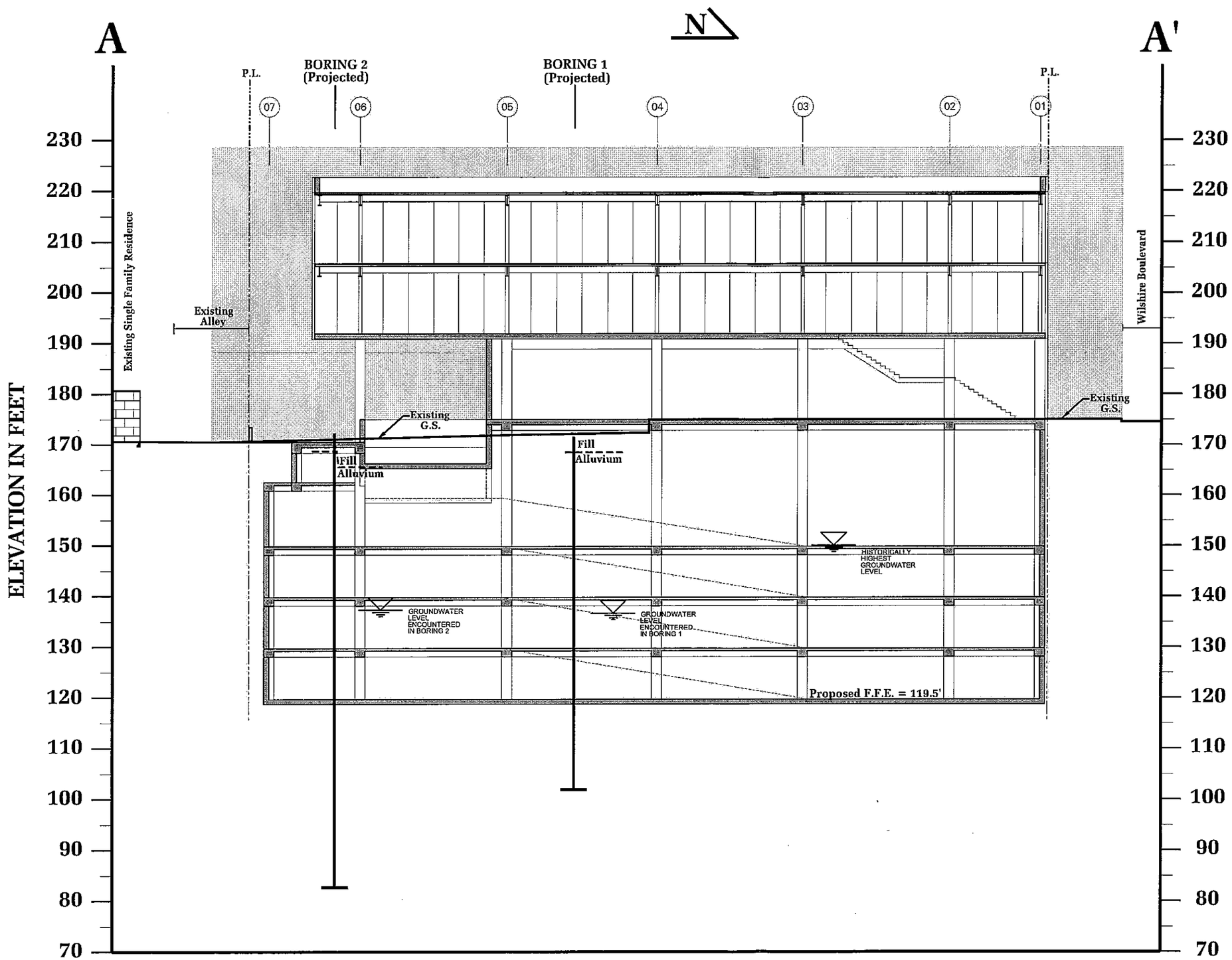
**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

# PLOT PLAN - OPTION 1

## 9000 WILSHIRE, LLC

File No.: 20256

Date: February '12




REFERENCES: SECTION BB BY NEIL M. DENARI ARCHITECTS, DATED 12/27/11
LAND TITTLE SURVEY BY O.K.O. ENGINEERING, INC., DATED 8/1/11

**CROSS SECTION A-A'**

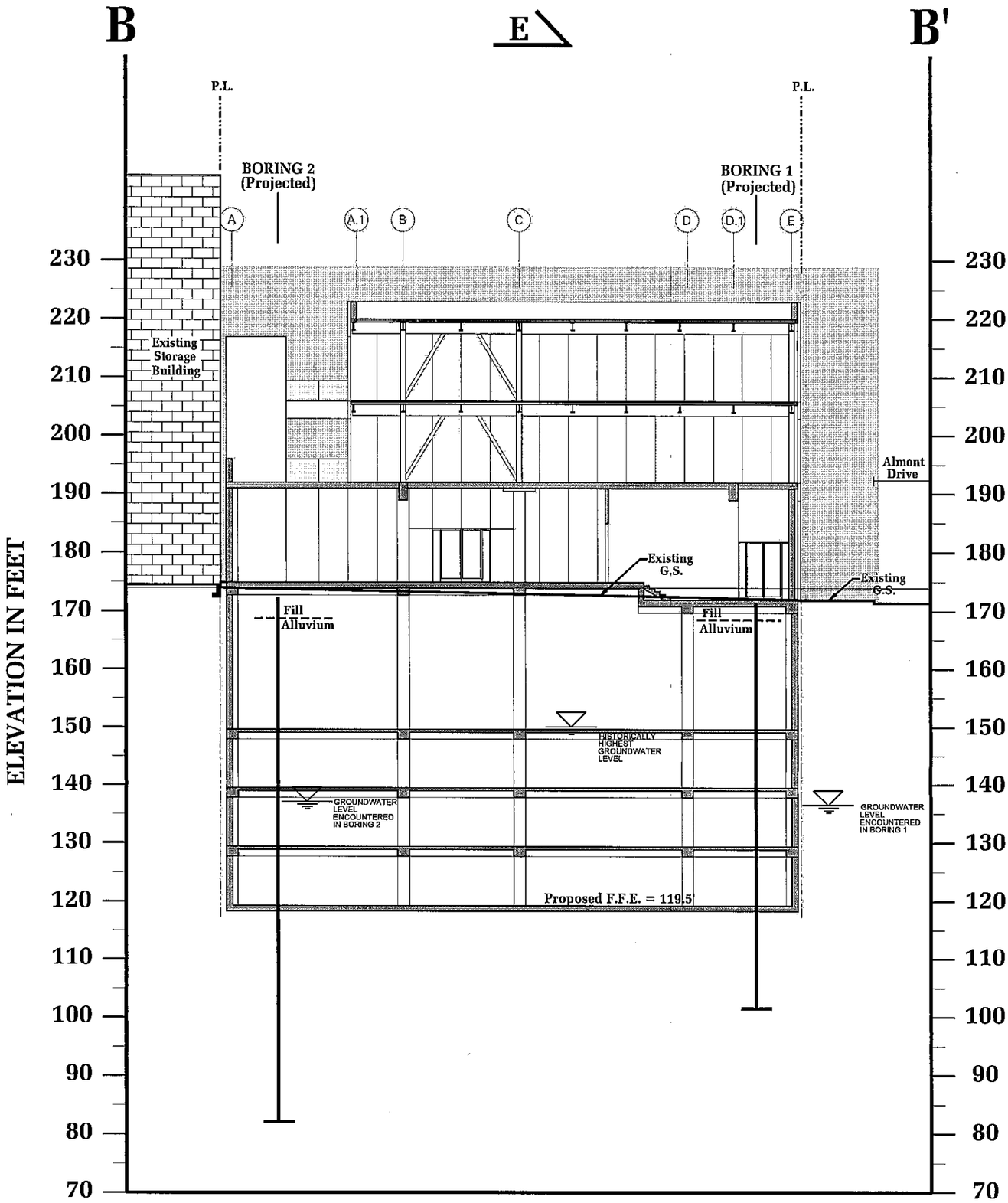
**9000 WILSHIRE, LLC**

File No.: 20256

Date: February '12

**Geotechnologies, Inc.**

*Consulting Geotechnical Engineers*




SCALE IN FEET

0 10 20 40

REFERENCES: SECTION CC BY NEIL M. DENARI ARCHITECTS, DATED 12/27/11
LAND TITTLE SURVEY BY O.K.O. ENGINEERING, INC., DATED 8/1/11

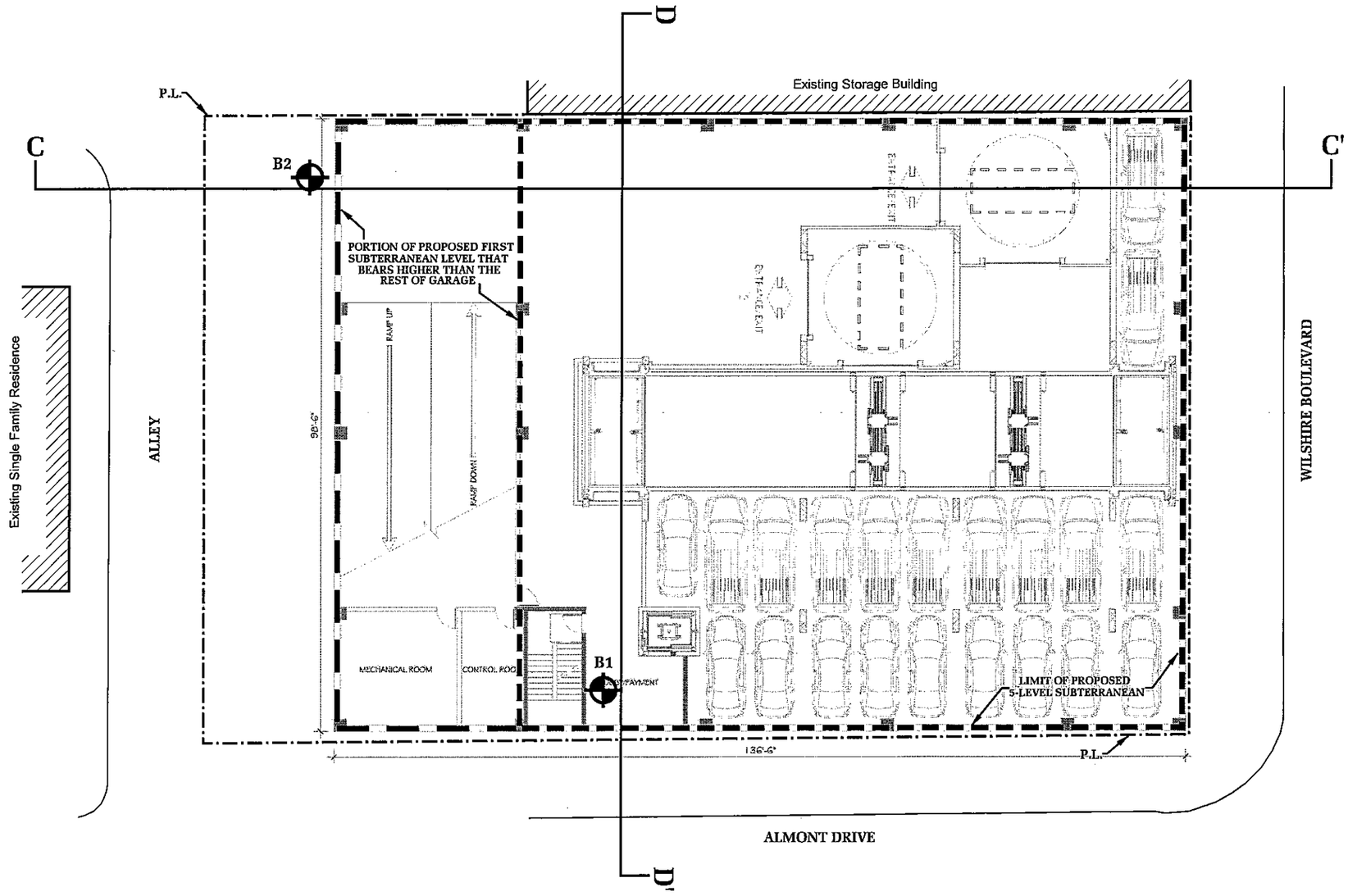
**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

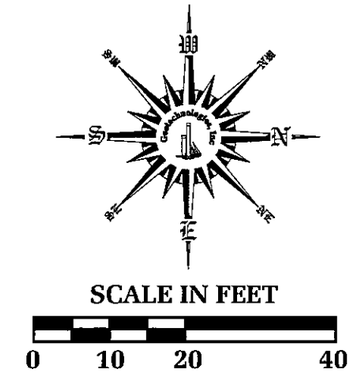
## CROSS SECTION B-B'

9000 WILSHIRE, LLC

File No.: 20256

Date: February '12




## LEGEND

B2 LOCATION & NUMBER OF BORING

D D' CROSS SECTION

REFERENCE: FIRST FLOOR PLAN BY NEIL M. DENARI ARCHITECTS DATED 12/27/11

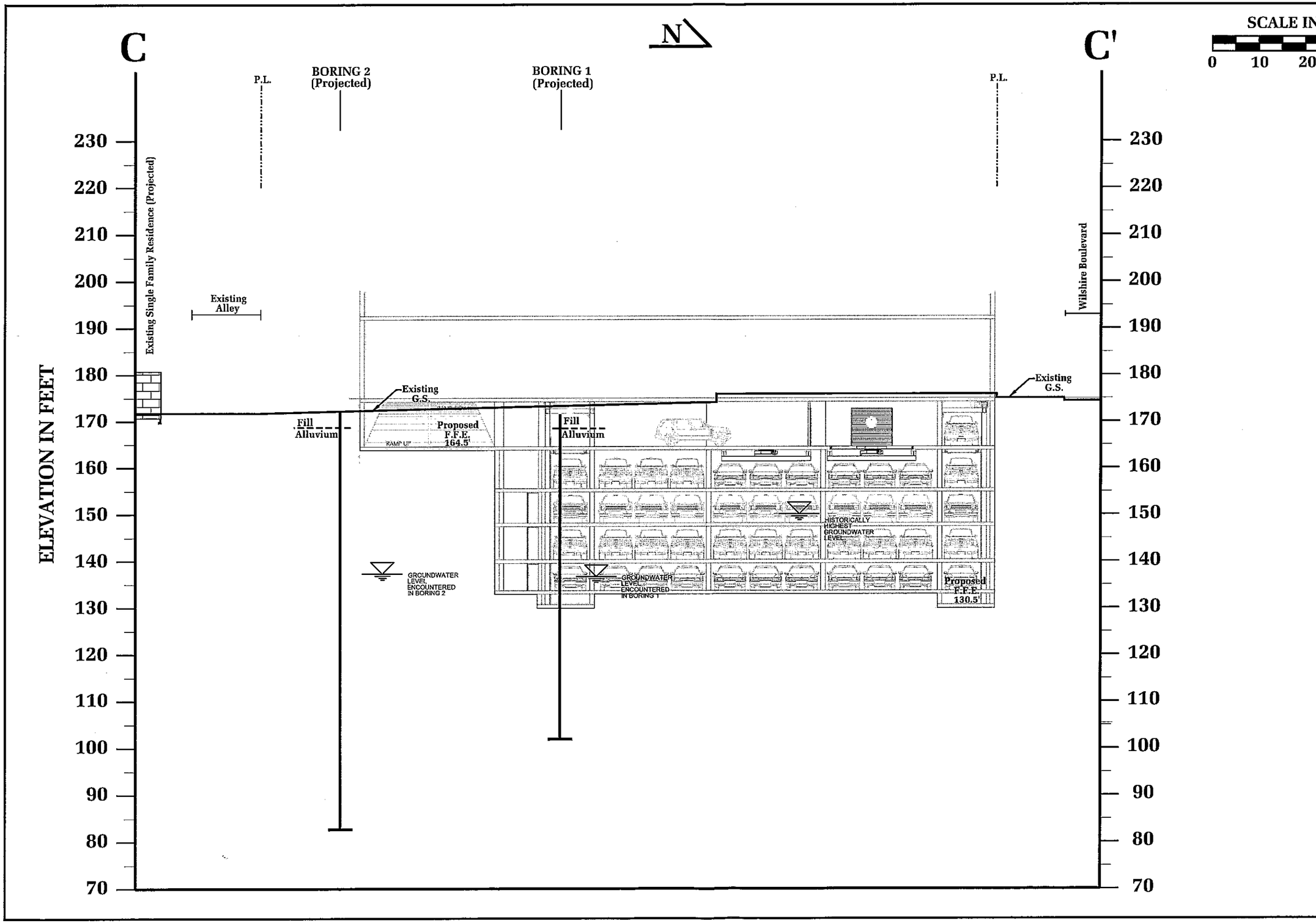
**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

## PLOT PLAN - OPTION 2

9000 WILSHIRE, LLC

File No.: 20256

Date: February '12




REFERENCES: SECTION BB BY UNITRONICS, DATED 12/08/11
LAND TITTLE SURVEY BY O.K.O. ENGINEERING, INC., DATED 8/1/11

**CROSS SECTION C-C'**

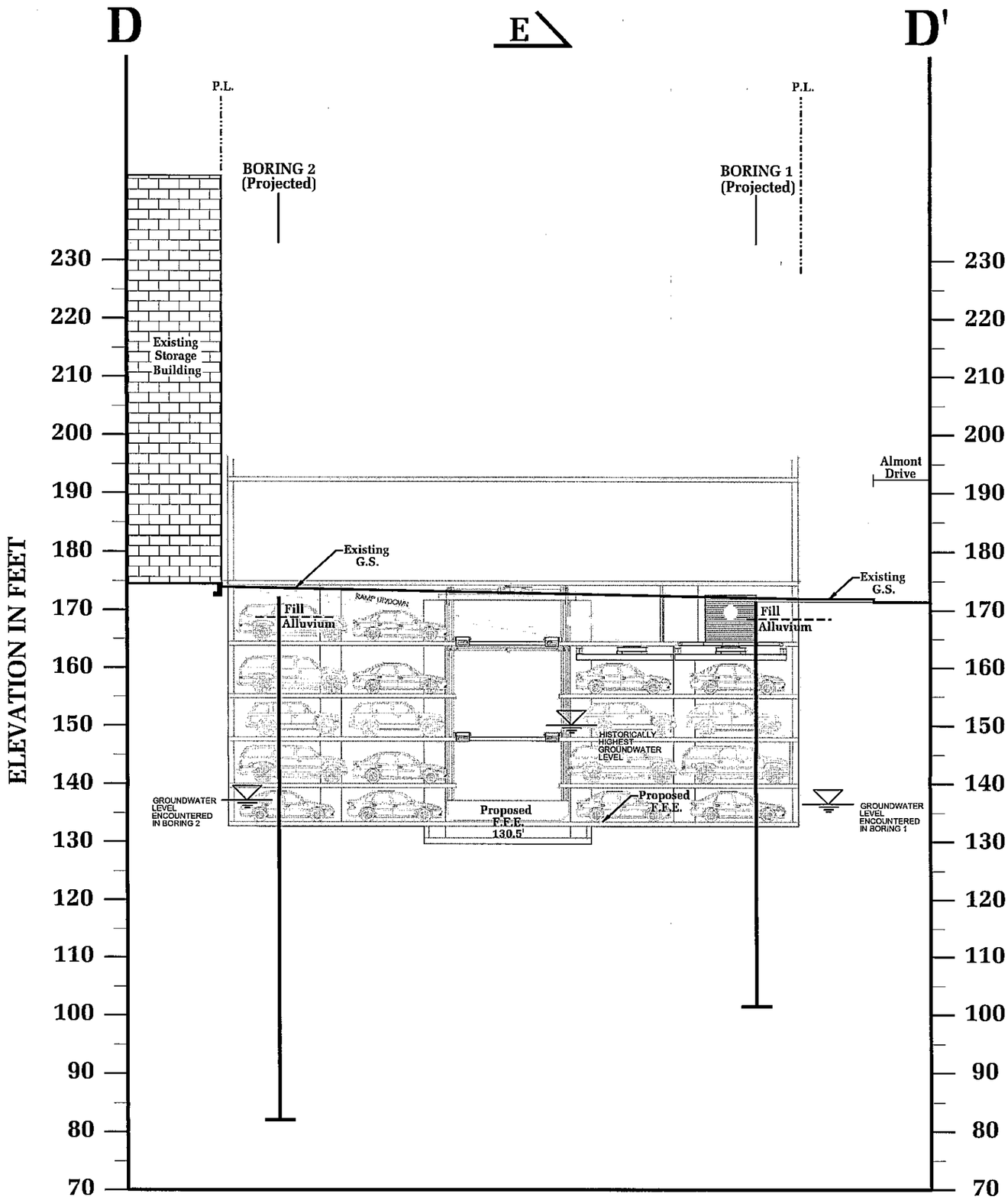
**9000 WILSHIRE, LLC**

File No.: 20256

Date: February '12

**Geotechnologies, Inc.**

*Consulting Geotechnical Engineers*




SCALE IN FEET

0 10 20 40

REFERENCES: SECTION AA BY UNITRONICS, DATED 12/08/11
LAND TITTLE SURVEY BY O.K.O. ENGINEERING, INC., DATED 8/1/11

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

## CROSS SECTION D-D'

9000 WILSHIRE, LLC

File No.: 20256

Date: February '12

# EXCAVATION LOG NUMBER 1

**9000 Wilshire, LLC** **Date: 12/12/11** **Elevation: 171.5'***

**File No. 20256** **Method: 8-inch diameter Hollow Stem Auger**

km

*Reference: Land Title Survey by O.K.O. Engineering, Inc., dated 8/1/11

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description<br>Surface Conditions: Asphalt |
|---|---|---|---|---|---|---|
| | | | | 0 | | 3-inch Asphalt over 5-inch Base |
| | | | | 1 | | FILL: Sandy Silt to Silty Sand, dark brown, moist, stiff, medium dense, fine grained |
| 2 | 25 | 4.1 | 120.4 | 2 | | |
| | | | | 3 | SM/ML | ALLUVIUM: Silty Sand to Sandy Silt |
| 4 | 17 | 33.4 | 96.3 | 4 | CL | Sandy to Silty Clay, medium brown, moist, stiff, minor slate fragments |
| | | | | 5 | | |
| | | | | 6 | | |
| 7 | 65 | 12.6 | 124.3 | 7 | SC/CL | Clayey Sand to Sandy Clay, medium brown, moist, stiff, minor slate fragments |
| | | | | 8 | | |
| | | | | 9 | | |
| 10 | 45 | 15.4 | 116.0 | 10 | | |
| | | | | 11 | | |
| | | | | 12 | | |
| | | | | 13 | | |
| | | | | 14 | | |
| 15 | 42 | 12.6 | 123.3 | 15 | | |
| | | | | 16 | | |
| | | | | 17 | | |
| | | | | 18 | | |
| | | | | 19 | | |
| 20 | 43 | 7.6 | 112.1 | 20 | SM | Silty Sand, dark brown, moist, medium dense, fine grained, minor slate fragments |
| | | | | 21 | | |
| | | | | 22 | | |
| | | | | 23 | | |
| | | | | 24 | | |
| 25 | 37 | 10.8 | 128.0 | 25 | SM/SC | Silty to Clayey Sand, medium brown, moist, medium dense, fine grained, with minor slate fragments |

# EXCAVATION LOG NUMBER 1

**9000 Wilshire, LLC**

**File No. 20256**

km

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description |
|---|---|---|---|---|---|---|
| | | | | 26 | | |
| | | | | 27 | | |
| | | | | 28 | | |
| | | | | 29 | | |
| 30 | 35 | 12.2 | 123.0 | 30 | | |
| | | | | 31 | | |
| | | | | 32 | | |
| | | | | 33 | | |
| | | | | 34 | | |
| 35 | 70 | 7.1 | 130.6 | 35 | SM/SP | Silty Sand to Sand, yellow to dark brown, moist, very dense, fine grained, abundant slate |
| | | | | 36 | | |
| | | | | 37 | | |
| | | | | 38 | | |
| | | | | 39 | | |
| 40 | 67 | 12.5 | 118.2 | 40 | | |
| | | | | 41 | | |
| | | | | 42 | | |
| | | | | 43 | | |
| | | | | 44 | | |
| 45 | 58 | 13.1 | 124.3 | 45 | SM | Silty Sand, dark and grayish brown, moist, stiff, dense, fine grained, with gravel |
| | | | | 46 | | |
| | | | | 47 | | |
| | | | | 48 | | |
| | | | | 49 | | |
| 50 | 46 | 17.9 | 112.7 | 50 | ML/SM | Sandy Silt to Silty Sand, dark and grayish brown, moist, stiff |

# EXCAVATION LOG NUMBER 1

**9000 Wilshire, LLC**

**File No. 20256**

km

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description |
|---|---|---|---|---|---|---|
| | | | | 51 | | |
| | | | | 52 | | |
| | | | | 53 | | |
| | | | | 54 | | |
| 55 | 43 | 29.9 | 96.7 | 55 | | |
| | | | | 56 | ML/CL | Clayey Silt to Silty Clay, grayish brown, slightly moist to moist, stiff |
| | | | | 57 | | |
| | | | | 58 | | |
| | | | | 59 | | |
| 60 | 45 | 28.5 | 97.9 | 60 | | |
| | | | | 61 | | |
| | | | | 62 | | |
| | | | | 63 | | |
| | | | | 64 | | |
| 65 | 54 | 18.7 | 112.1 | 65 | | |
| | | | | 66 | | |
| | | | | 67 | | |
| | | | | 68 | | |
| | | | | 69 | CL | SHALLOW MARINE SEDIMENTS: Silty Clay, grayish brown, moist, stiff |
| 70 | 47 | 22.9 | 104.7 | 70 | | |
| | | | | 71 | | Total depth: 70 feet<br>Water at 35 feet<br>Fill to 3 feet |
| | | | | 72 | | |
| | | | | 73 | | NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual |
| | | | | 74 | | |
| | | | | 75 | | Used 8-inch diameter Hollow-Stem Auger<br>140-lb. Slide Hammer, 30-inch drop<br>Modified California Sampler used unless otherwise noted<br>SPT=Standard Penetration Test |

# EXCAVATION LOG NUMBER 2

**9000 Wilshire, LLC** **Date: 12/09/11** **Elevation: 172.25'***

**File No. 20256** **Method: 8-inch diameter Hollow Stem Auger**

km *Reference: Land Title Survey by O.K.O. Engineering, Inc., dated 8/1/11

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description<br>Surface Conditions: Asphalt |
|---|---|---|---|---|---|---|
| | | | | 0 | | 3-inch Asphalt over 5-inch Base |
| | | | | 1 | | FILL: Silty Sand, dark brown, moist, medium dense, fine grained |
| | | | | 2 | | |
| 2.5 | 13 | 10.0 | 113.3 | | | |
| | | | | 3 | | |
| | | | | 4 | SM/ML | ALLUVIUM: Silty Sand to Sandy Silt, dark and yellowish brown mottling, moist, stiff, medium dense, fine grained |
| 5 | 8 | 12.8 | SPT | 5 | ML | Sandy to Clayey Silt, dark brown, moist, stiff |
| | | | | 6 | | |
| | | | | 7 | | |
| 7.5 | 87 | 8.8 | 133.8 | | SM/ML | Silty Sand to Sandy Silt, dark brown, moist, very stiff to very dense, fine grained, with gravel |
| | | | | 8 | | |
| | | | | 9 | | |
| 10 | 23 | 9.6 | SPT | 10 | SM/SC | Silty to Clayey Sand, medium brown, slightly moist, medium dense, fine grained, minor slate fragments |
| | | | | 11 | | |
| | | | | 12 | | |
| 12.5 | 63 | 11.4 | 126.2 | | | |
| | | | | 13 | | |
| | | | | 14 | | |
| 15 | 13 | 13.8 | SPT | 15 | | |
| | | | | 16 | | |
| | | | | 17 | | |
| 17.5 | 41 | 13.4 | 122.4 | | | |
| | | | | 18 | | |
| | | | | 19 | | |
| 20 | 29 | 11.5 | SPT | 20 | | |
| | | | | 21 | | |
| | | | | 22 | CL | Silty Clay, medium brown, moist, stiff |
| 22.5 | 30 | 16.5 | 111.2 | | | |
| | | | | 23 | | |
| | | | | 24 | | |
| 25 | 9 | 15.2 | SPT | 25 | | |

# EXCAVATION LOG NUMBER 2

**9000 Wilshire, LLC**

**File No. 20256**

km

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description |
|---|---|---|---|---|---|---|
| | | | | 26 | | |
| | | | | 27 | | |
| 27.5 | 40 | 14.3 | 120.1 | 28 | CL | Sandy to Silty Clay, medium brown, moist, stiff, minor slate fragments |
| | | | | 29 | | |
| 30 | 15 | 13.2 | SPT | 30 | | |
| | | | | 31 | | |
| | | | | 32 | | |
| 32.5 | 37 | 25.3 | 104.1 | 33 | | |
| | | | | 34 | | |
| 35 | 15 | 13.0 | SPT | 35 | CL/SC | Sandy Clay to Clayey Sand, medium brown, moist, stiff or medium dense, fine grained |
| | | | | 36 | | |
| | | | | 37 | | |
| 37.5 | 75 | 13.1 | 124.2 | 38 | | |
| | | | | 39 | | |
| 40 | 20 | 15.3 | SPT | 40 | ML/SM | Clayey Silt to Silty Sand, dark and yellowish brown, moist, stiff, medium dense, fine grained |
| | | | | 41 | | |
| | | | | 42 | | |
| 42.5 | 45 | 26.9 | 103.6 | 43 | | |
| | | | | 44 | | |
| 45 | 13 | 20.6 | SPT | 45 | CL | Sandy Clay, dark and grayish brown, moist, fine grained, stiff |
| | | | | 46 | | |
| | | | | 47 | | |
| 47.5 | 60 | 16.4 | 116.7 | 48 | | |
| | | | | 49 | | |
| 50 | 23 | 19.0 | SPT | 50 | | |

# EXCAVATION LOG NUMBER 2

**9000 Wilshire, LLC**

**File No. 20256**

km

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description |
|---|---|---|---|---|---|---|
| | | | | 51 | | |
| | | | | 52 | | |
| 52.5 | 28 | 30.0 | 94.6 | 53 | CL | Silty Clay, dark and grayish brown, moist, stiff |
| | | | | 54 | | |
| 55 | 14 | 23.8 | SPT | 55 | | |
| | | | | 56 | | |
| | | | | 57 | | |
| 57.5 | 40 | 29.5 | 95.2 | 58 | | |
| | | | | 59 | | |
| 60 | 11 | 34.6 | SPT | 60 | | |
| | | | | 61 | | |
| | | | | 62 | | |
| 62.5 | 68 | 19.5 | 113.0 | 63 | | |
| | | | | 64 | | |
| 65 | 33 | 21.7 | SPT | 65 | CL | SHALLOW MARINE SEDIMENTS: Silty Clay, grayish to greenish brown, moist, stiff |
| | | | | 66 | | |
| | | | | 67 | | |
| 67.5 | 70 | 16.9 | 115.4 | 68 | | |
| | | | | 69 | | |
| 70 | 34 | 18.6 | SPT | 70 | | |
| | | | | 71 | | |
| | | | | 72 | | |
| 72.5 | 45<br>50/5" | 14.3 | 118.0 | 73 | | |
| | | | | 74 | | |
| 75 | 33 | 15.0 | SPT | 75 | | |

# EXCAVATION LOG NUMBER 2

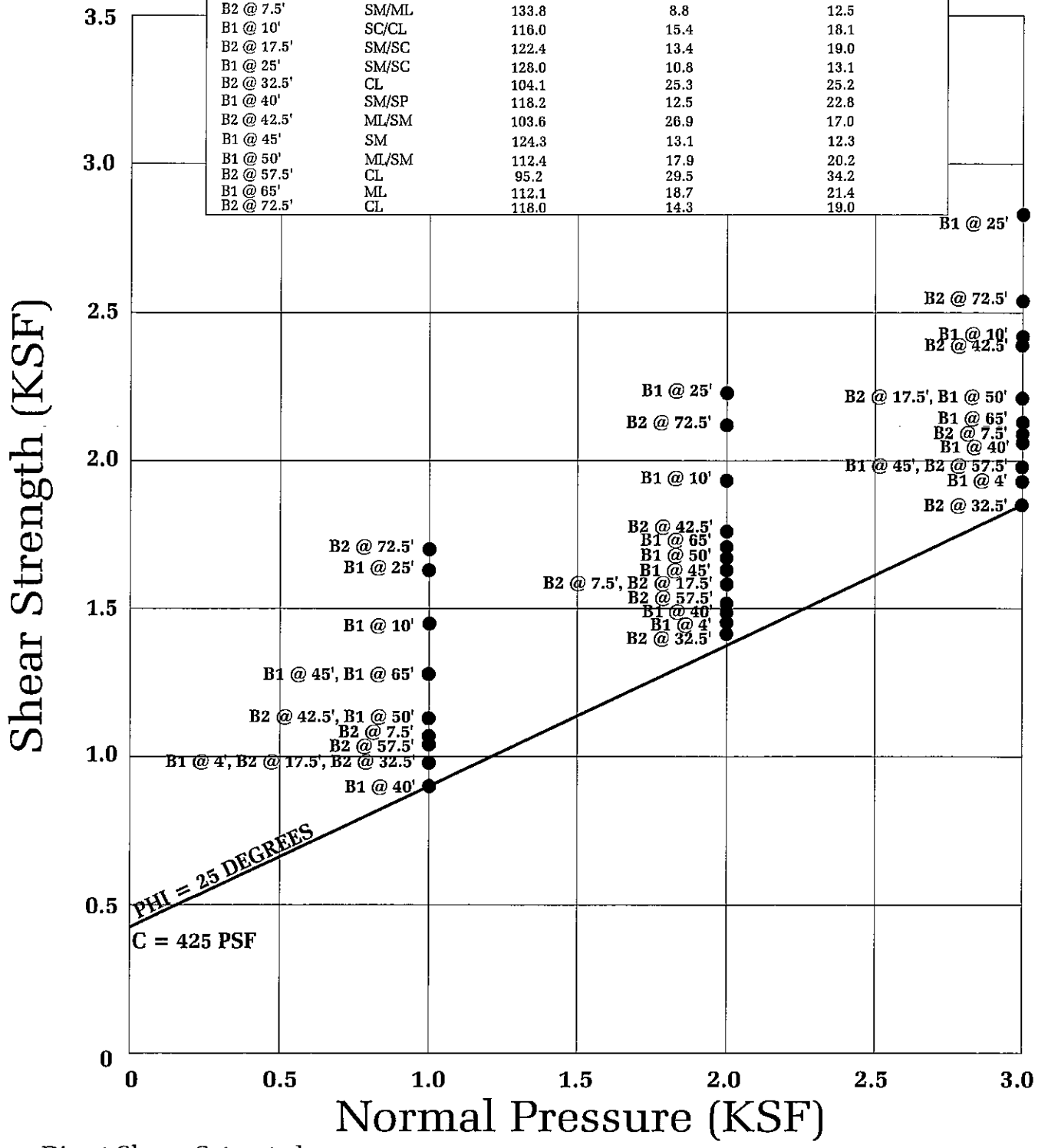
9000 Wilshire, LLC

File No. 20256

km

| Sample Depth ft. | Blows per ft. | Moisture content % | Dry Density p.c.f. | Depth in feet | USCS Class. | Description |
|---|---|---|---|---|---|---|
| | | | | 76 | | |
| | | | | 77 | | |
| 77.5 | 80 | 13.6 | 123.7 | | | |
| | | | | 78 | | slate |
| | | | | 79 | | |
| 80 | 35 | 19.1 | SPT | 80 | | |
| | | | | 81 | | |
| | | | | 82 | | |
| 82.5 | 68 | 21.8 | 111.2 | | | |
| | | | | 83 | ML | Clayey Silt, greenish gray, moist, stiff |
| | | | | 84 | | |
| 85 | 34 | 22.8 | SPT | 85 | | |
| | | | | 86 | | |
| | | | | 87 | | |
| 87.5 | 100/10" | 13.2 | 121.7 | | | |
| | | | | 88 | SM | Silty Sand, grayish brown, very moist, very dense, abundant slate |
| | | | | 89 | | |
| 90 | 33 | 18.7 | SPT | 90 | ML | Clayey Silt, greenish gray, moist, stiff |
| | | | | 91 | | Total depth: 90 feet<br>Water at 35 feet<br>Fill to 3½ feet |
| | | | | 92 | | |
| | | | | 93 | | |
| | | | | 94 | | |
| | | | | 95 | | |
| | | | | 96 | | |
| | | | | 97 | | |
| | | | | 98 | | |
| | | | | 99 | | |
| | | | | 100 | | |

| SAMPLE | SOIL TYPE | DRY DENSITY (PCF) | INITIAL MOISTURE(%) | FINAL MOISTURE(%) |
|---|---|---|---|---|
| B1 @ 4' | CL | 96.3 | 33.4 | 33.3 |
| B2 @ 7.5' | SM/ML | 133.8 | 8.8 | 12.5 |
| B1 @ 10' | SC/CL | 116.0 | 15.4 | 18.1 |
| B2 @ 17.5' | SM/SC | 122.4 | 13.4 | 19.0 |
| B1 @ 25' | SM/SC | 128.0 | 10.8 | 13.1 |
| B2 @ 32.5' | CL | 104.1 | 25.3 | 25.2 |
| B1 @ 40' | SM/SP | 118.2 | 12.5 | 22.8 |
| B2 @ 42.5' | ML/SM | 103.6 | 26.9 | 17.0 |
| B1 @ 45' | SM | 124.3 | 13.1 | 12.3 |
| B1 @ 50' | ML/SM | 112.4 | 17.9 | 20.2 |
| B2 @ 57.5' | CL | 95.2 | 29.5 | 34.2 |
| B1 @ 65' | ML | 112.1 | 18.7 | 21.4 |
| B2 @ 72.5' | CL | 118.0 | 14.3 | 19.0 |



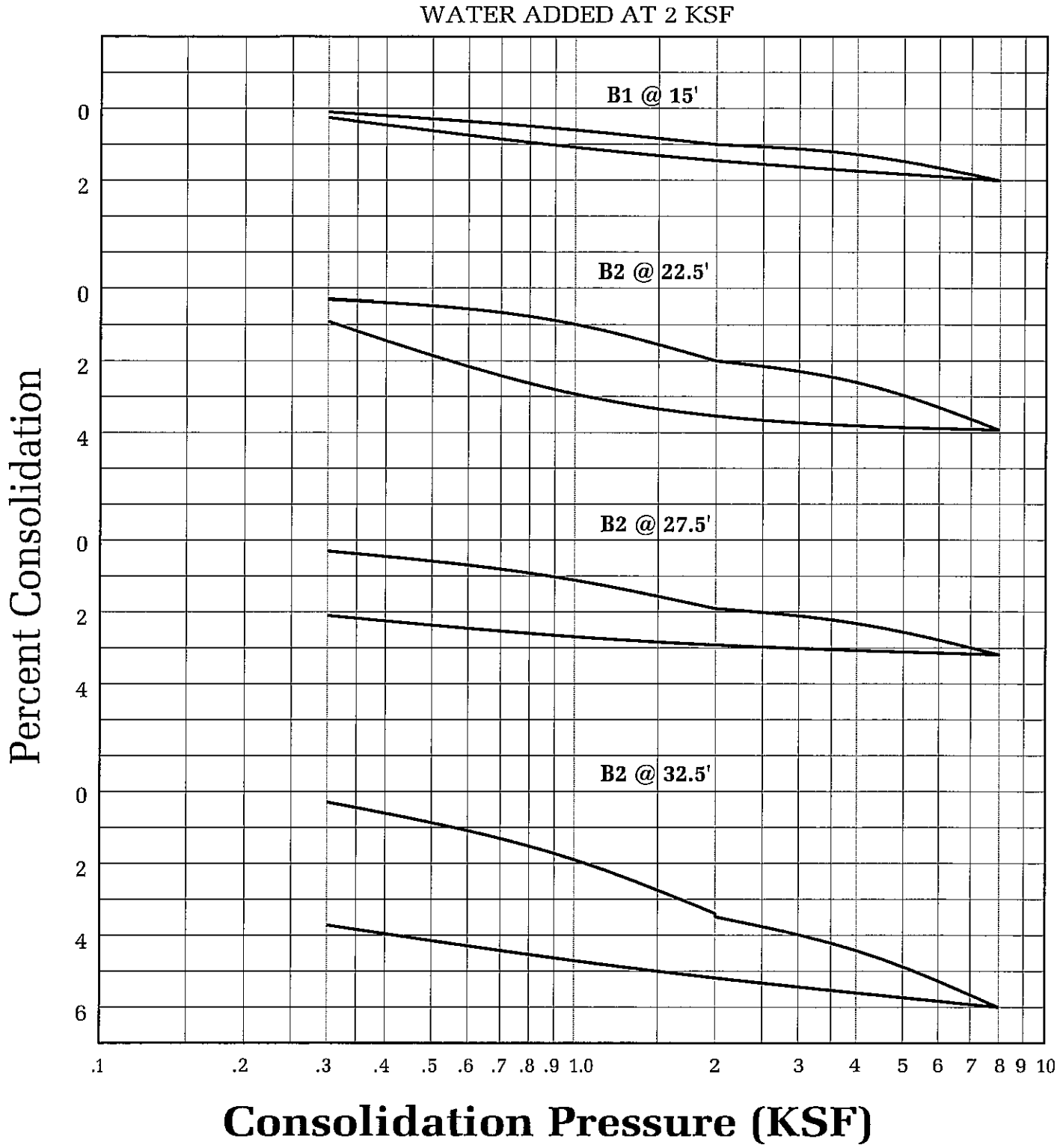

● Direct Shear, Saturated

# SHEAR TEST DIAGRAM

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

9000 WILSHIRE, LLC

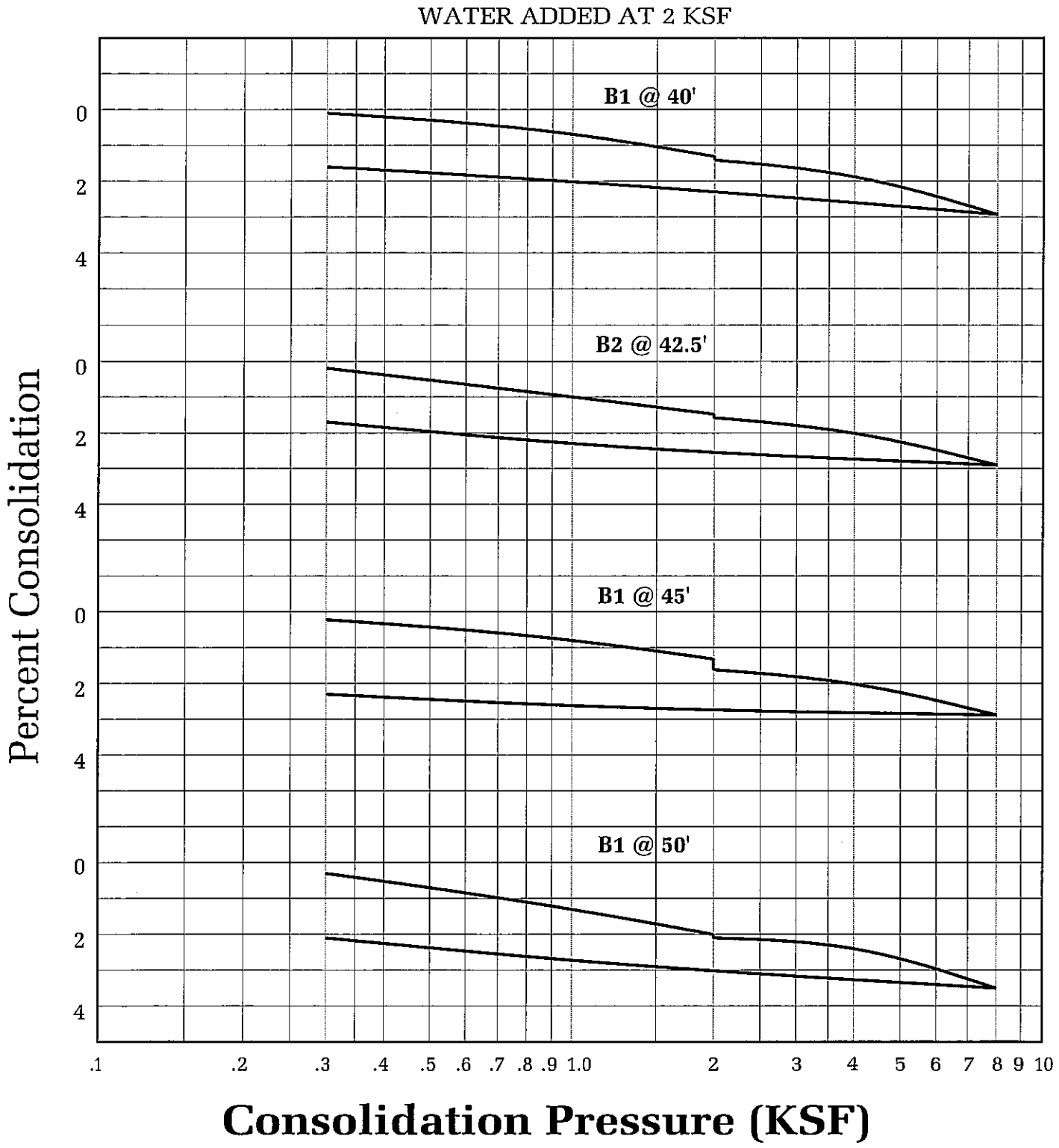
FILE NO. 20256 | PLATE: B




# CONSOLIDATION TEST

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

| | |
|---|---|
| 9000 WILSHIRE, LLC | |
| FILE NO. 20256 | PLATE: C-1 |

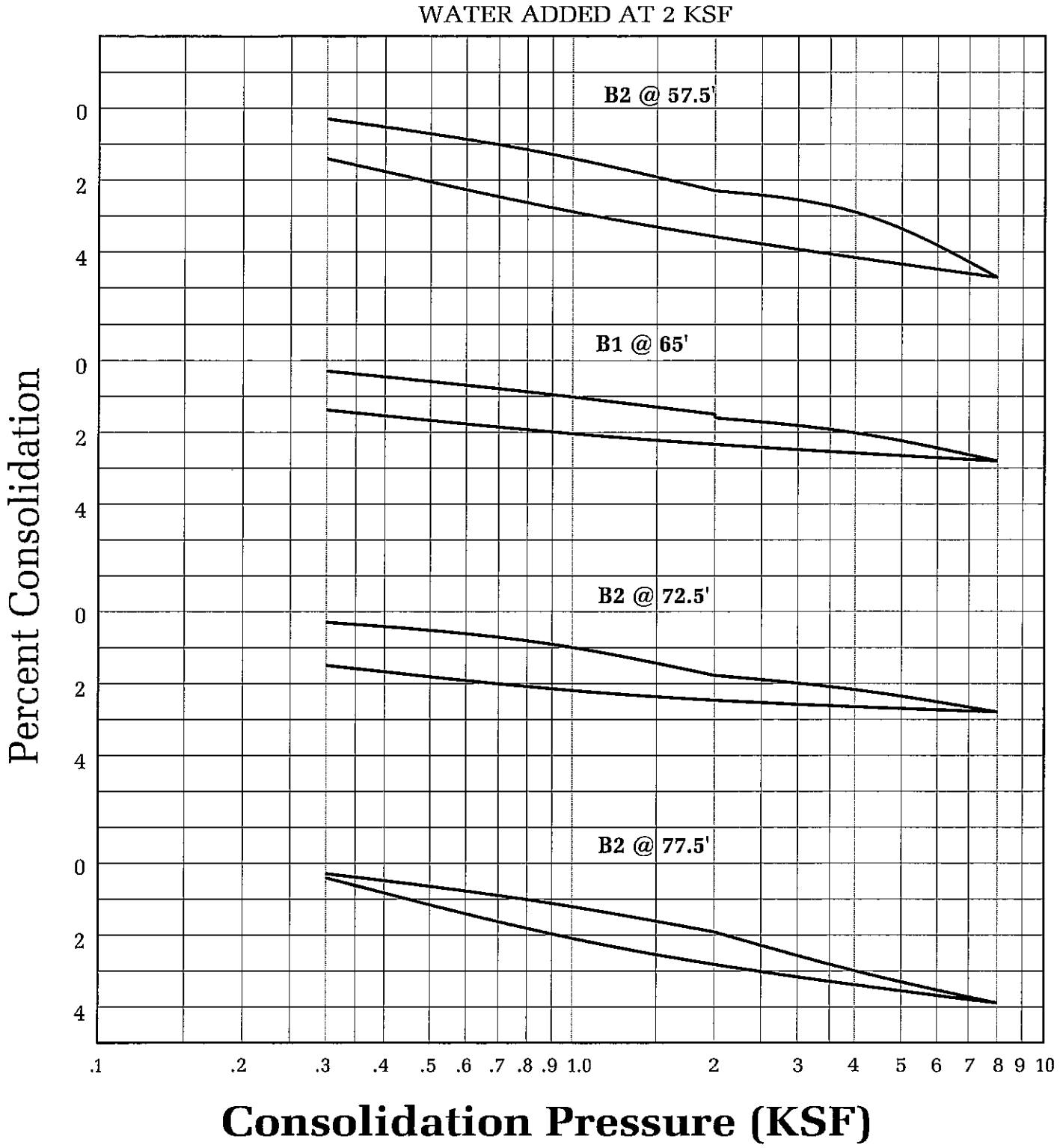



# CONSOLIDATION TEST

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

**9000 WILSHIRE, LLC**

**FILE NO. 20256** | **PLATE: C-2**




# CONSOLIDATION TEST

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

9000 WILSHIRE, LLC

FILE NO. 20256 | PLATE: C-3

## ASTM D-1557

| SAMPLE | B1 @ 1- 5' | B2 @ 1-5' |
|---|---|---|
| SOIL TYPE: | SM/ML | SM/ML |
| MAXIMUM DENSITY pcf. | 126.6 | 127.7 |
| OPTIMUM MOISTURE % | 11.4 | 10.5 |

## ASTM D 4829-03

| SAMPLE | B1 @ 1- 5' | B2 @ 1-5' |
|---|---|---|
| SOIL TYPE: | SM/ML | SM/ML |
| EXPANSION INDEX UBC STANDARD 18-2 | 0 | 50 |
| EXPANSION CHARACTER | VERY LOW | MODERATE |

## SULFATE CONTENT

| SAMPLE | B1 @ 1-5' | B2 @ 1-5' | B1 @ 15' | B2 @ 20' |
|---|---|---|---|---|
| SULFATE CONTENT: (percentage by weight) | < 0.1 % | < 0.1 % | < 0.1 % | < 0.1 % |

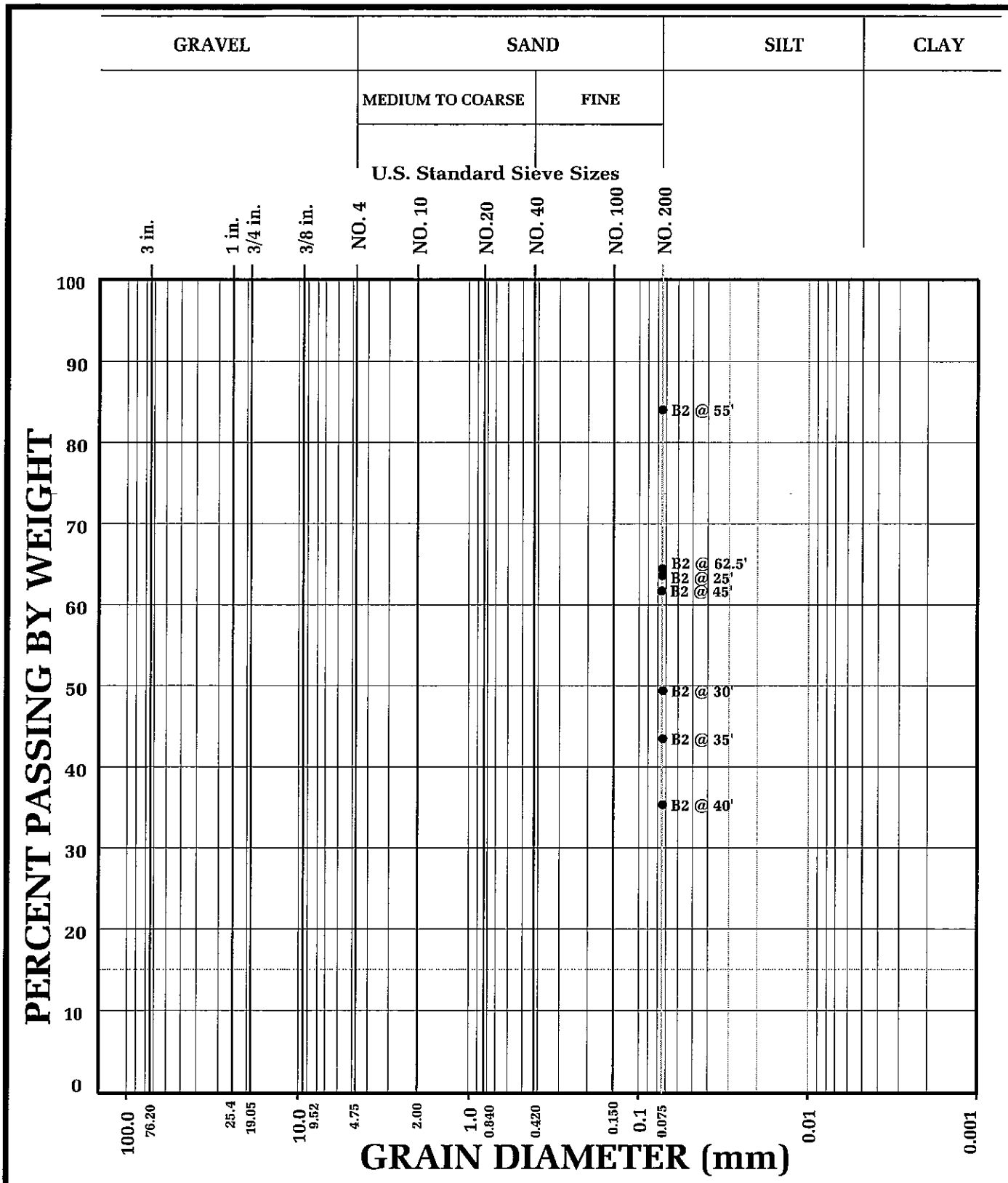
| SAMPLE | B1 @ 30' | B1 @ 40' | B1 @ 45' |
|---|---|---|---|
| SULFATE CONTENT: (percentage by weight) | < 0.1 % | < 0.1 % | < 0.1 % |

# COMPACTION/EXPANSION/SULFATE DATA SHEET

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

9000 WILSHIRE, LLC

FILE NO. 20256 | PLATE: D

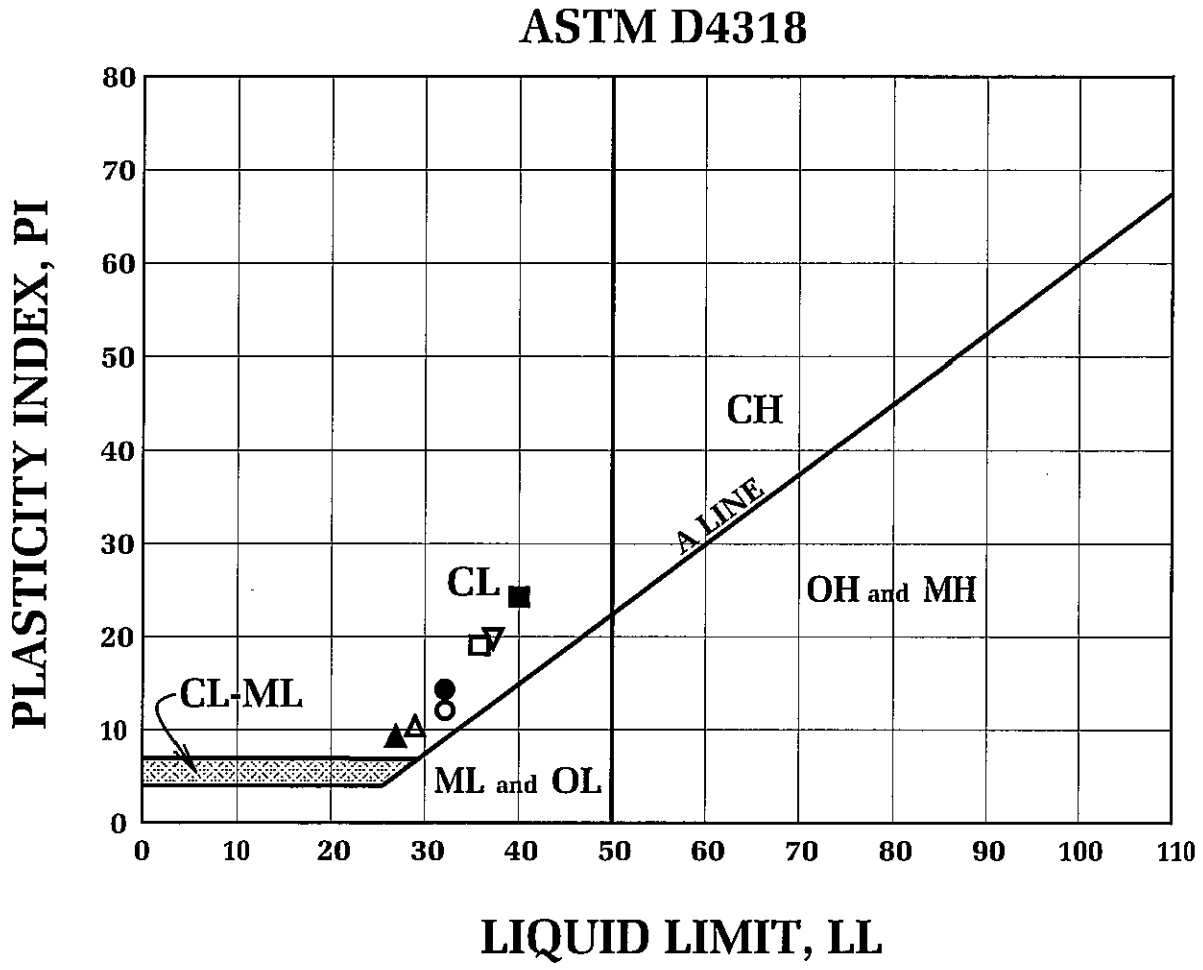



# GRAIN SIZE DISTRIBUTION

**Geotechnologies, Inc.**
Consulting Geotechnical Engineers

9000 WILSHIRE, LLC

FILE NO. 20256 | PLATE: E




| BORING NUMBER | DEPTH (FEET) | TEST SYMBOL | LL | PL | PI | DESCRIPTION |
|---|---|---|---|---|---|---|
| B2 | 25 | ○ | 32 | 20 | 12 | CLAY |
| B2 | 30 | ● | 32 | 18 | 14 | CLAY |
| B2 | 35 | △ | 29 | 19 | 10 | CLAY |
| B2 | 40 | ▲ | 27 | 18 | 9 | CLAY |
| B2 | 45 | □ | 36 | 17 | 19 | CLAY |
| B2 | 55 | ■ | 40 | 16 | 24 | CLAY |
| B2 | 62.5 | ▽ | 37 | 17 | 20 | CLAY |

# ATTERBERG LIMITS DETERMINATION

**Geotechnologies, Inc.**
*Consulting Geotechnical Engineers*

9000 WILSHIRE, LLC

FILE NO. 20256 | PLATE: F

**Geotechnologies, Inc.**

Project: 9000 Wilshire, LLC
File No.: 20256
Description: Liquefaction Analysis
Boring Number: 2

# EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL

NCEER (1996) METHOD — By Thomas F. Blake (1994-1996) — LIQ2_30.WQ1

**EARTHQUAKE INFORMATION:**

| | |
|---|---|
| Earthquake Magnitude: | 6.6 |
| Peak Horiz. Acceleration (g): | 0.48 |
| Calculated Mag.Wtg.Factor: | 0.724 |

**GROUNDWATER INFORMATION:**

| | |
|---|---|
| Current Groundwater Level (ft): | 35.0 |
| Historic Highest Groundwater Level* (ft): | 25.0 |
| Unit Wt. Water (pcf): | 62.4 |

* Based on California Geological Survey Seismic Hazard Evaluation Report

**ENERGY & ROD CORRECTIONS:**

| | |
|---|---|
| Energy Correction (CE) for N60: | 1.30 |
| Rod Len.Corr.(CR)(0-no or 1-yes): | 1.0 |
| Bore Dia. Corr. (CB): | 1.00 |
| Sampler Corr. (CS): | 1.20 |
| Use Ksigma (0 or 1): | 1.0 |

**LIQUEFACTION CALCULATIONS:**

| Depth to Base (ft) | Total Unit Wt. (pcf) | Current Water Level (0 or 1) | FIELD SPT (N) | Depth of SPT (ft) | Liq.Sus. (0 or 1) | -200 (%) | Est. Dr (%) | CN Factor | Corrected $(N_1)_{60}$ | Resist. CRR | rd Factor | Induced CSR | Liquefac. Safe.Fact. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 124.7 | 0 | NA | 1.0 | 0 | 0.0 | | 2.000 | 0.0 | ~ | 0.998 | 0.226 | ~ |
| 2.0 | 124.7 | 0 | NA | 1.0 | 0 | 0.0 | | #VALUE! | #VALUE! | ~ | 0.993 | 0.224 | ~ |
| 3.0 | 124.7 | 0 | NA | 1.0 | 0 | 0.0 | | #VALUE! | #VALUE! | ~ | 0.989 | 0.223 | ~ |
| 4.0 | 124.7 | 0 | NA | 1.0 | 0 | 0.0 | | #VALUE! | #VALUE! | ~ | 0.984 | 0.222 | ~ |
| 5.0 | 124.7 | 0 | NA | 1.0 | 0 | 0.0 | | #VALUE! | #VALUE! | ~ | 0.979 | 0.221 | ~ |
| 6.0 | 124.7 | 0 | 7.0 | 5.0 | 0 | 0.0 | | 1.942 | 15.9 | ~ | 0.975 | 0.220 | ~ |
| 7.0 | 124.7 | 0 | 7.0 | 5.0 | 0 | 0.0 | | 1.942 | 15.9 | ~ | 0.970 | 0.219 | ~ |
| 8.0 | 145.5 | 0 | 7.0 | 5.0 | 0 | 0.0 | | 1.942 | 15.9 | ~ | 0.966 | 0.218 | ~ |
| 9.0 | 145.5 | 0 | 7.0 | 5.0 | 0 | 0.0 | | 1.942 | 15.9 | ~ | 0.961 | 0.217 | ~ |
| 10.0 | 145.5 | 0 | 7.0 | 5.0 | 0 | 0.0 | | 1.942 | 15.9 | ~ | 0.957 | 0.216 | ~ |
| 11.0 | 140.6 | 0 | 23.0 | 10.0 | 0 | 0.0 | | 1.308 | 35.2 | ~ | 0.952 | 0.215 | ~ |
| 12.0 | 140.6 | 0 | 23.0 | 10.0 | 0 | 0.0 | | 1.308 | 35.2 | ~ | 0.947 | 0.214 | ~ |
| 13.0 | 140.6 | 0 | 23.0 | 10.0 | 0 | 0.0 | | 1.308 | 35.2 | ~ | 0.943 | 0.213 | ~ |
| 14.0 | 140.6 | 0 | 23.0 | 10.0 | 0 | 0.0 | | 1.308 | 35.2 | ~ | 0.938 | 0.212 | ~ |
| 15.0 | 140.6 | 0 | 23.0 | 10.0 | 0 | 0.0 | | 1.308 | 35.2 | ~ | 0.934 | 0.211 | ~ |
| 16.0 | 140.6 | 0 | 13.0 | 15.0 | 0 | 0.0 | | 1.044 | 17.1 | ~ | 0.929 | 0.210 | ~ |
| 17.0 | 140.6 | 0 | 13.0 | 15.0 | 0 | 0.0 | | 1.044 | 17.1 | ~ | 0.925 | 0.209 | ~ |
| 18.0 | 138.7 | 0 | 13.0 | 15.0 | 0 | 0.0 | | 1.044 | 17.1 | ~ | 0.920 | 0.208 | ~ |
| 19.0 | 138.7 | 0 | 13.0 | 15.0 | 0 | 0.0 | | 1.044 | 17.1 | ~ | 0.915 | 0.207 | ~ |
| 20.0 | 138.7 | 0 | 13.0 | 15.0 | 0 | 0.0 | | 1.044 | 17.1 | ~ | 0.911 | 0.206 | ~ |
| 21.0 | 138.7 | 0 | 29.0 | 20.0 | 0 | 0.0 | | 0.895 | 36.2 | ~ | 0.906 | 0.205 | ~ |
| 22.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 0.0 | | 0.801 | 10.7 | ~ | 0.902 | 0.204 | ~ |
| 23.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 0.0 | | 0.801 | 10.7 | ~ | 0.897 | 0.203 | ~ |
| 24.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 0.0 | | 0.801 | 10.7 | ~ | 0.893 | 0.202 | ~ |
| 25.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 0.0 | | 0.801 | 10.7 | ~ | 0.888 | 0.201 | ~ |
| 26.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 63.6 | | 0.801 | 17.7 | ~ | 0.883 | 0.200 | ~ |
| 27.0 | 129.6 | 0 | 9.0 | 25.0 | 0 | 63.6 | | 0.801 | 17.7 | ~ | 0.879 | 0.199 | ~ |
| 28.0 | 137.3 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.874 | 0.198 | ~ |
| 29.0 | 137.3 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.870 | 0.197 | ~ |
| 30.0 | 137.3 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.865 | 0.196 | ~ |
| 31.0 | 137.3 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.861 | 0.195 | ~ |
| 32.0 | 137.3 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.856 | 0.193 | ~ |
| 33.0 | 130.5 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.851 | 0.192 | ~ |
| 34.0 | 130.5 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.847 | 0.191 | ~ |
| 35.0 | 130.5 | 0 | 15.0 | 30.0 | 0 | 49.2 | | 0.730 | 24.1 | ~ | 0.842 | 0.190 | ~ |
| 36.0 | 140.5 | 1 | 15.0 | 35.0 | 0 | 43.2 | | 0.675 | 22.8 | ~ | 0.838 | 0.191 | ~ |
| 37.0 | 140.5 | 1 | 15.0 | 35.0 | 0 | 43.2 | | 0.675 | 22.8 | ~ | 0.833 | 0.192 | ~ |
| 38.0 | 140.5 | 1 | 15.0 | 35.0 | 0 | 43.2 | | 0.675 | 22.8 | ~ | 0.829 | 0.193 | ~ |
| 39.0 | 140.5 | 1 | 15.0 | 35.0 | 0 | 43.2 | | 0.675 | 22.8 | ~ | 0.824 | 0.194 | ~ |
| 40.0 | 140.5 | 1 | 15.0 | 35.0 | 0 | 43.2 | | 0.675 | 22.8 | ~ | 0.819 | 0.195 | ~ |
| 41.0 | 131.4 | 1 | 20.0 | 40.0 | 0 | 35.3 | | 0.647 | 27.2 | ~ | 0.815 | 0.196 | ~ |
| 42.0 | 131.4 | 1 | 20.0 | 40.0 | 0 | 35.3 | | 0.647 | 27.2 | ~ | 0.810 | 0.197 | ~ |
| 43.0 | 131.4 | 1 | 20.0 | 40.0 | 0 | 35.3 | | 0.647 | 27.2 | ~ | 0.806 | 0.198 | ~ |
| 44.0 | 131.4 | 1 | 20.0 | 40.0 | 0 | 35.3 | | 0.647 | 27.2 | ~ | 0.801 | 0.199 | ~ |
| 45.0 | 131.4 | 1 | 20.0 | 40.0 | 0 | 35.3 | | 0.647 | 27.2 | ~ | 0.797 | 0.200 | ~ |
| 46.0 | 135.8 | 1 | 13.0 | 45.0 | 0 | 61.7 | | 0.626 | 19.7 | ~ | 0.792 | 0.200 | ~ |
| 47.0 | 135.8 | 1 | 13.0 | 45.0 | 0 | 61.7 | | 0.626 | 19.7 | ~ | 0.787 | 0.201 | ~ |
| 48.0 | 135.8 | 1 | 13.0 | 45.0 | 0 | 61.7 | | 0.626 | 19.7 | ~ | 0.783 | 0.201 | ~ |
| 49.0 | 135.8 | 1 | 13.0 | 45.0 | 0 | 61.7 | | 0.626 | 19.7 | ~ | 0.778 | 0.202 | ~ |
| 50.0 | 135.8 | 1 | 13.0 | 45.0 | 0 | 61.7 | | 0.626 | 19.7 | ~ | 0.774 | 0.202 | ~ |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 51.0 | 135.8 | 1 | 23.0 | 50.0 | 0 | 61.7 | | 0.606 | 28.7 | ~ | 0.769 | 0.203 | ~ |
| 52.0 | 135.8 | 1 | 23.0 | 50.0 | 0 | 61.7 | | 0.606 | 28.7 | ~ | 0.765 | 0.203 | ~ |
| 53.0 | 123.0 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.760 | 0.203 | ~ |
| 54.0 | 123.0 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.755 | 0.203 | ~ |
| 55.0 | 123.0 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.751 | 0.204 | ~ |
| 56.0 | 123.0 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.746 | 0.204 | ~ |
| 57.0 | 123.0 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.742 | 0.204 | ~ |
| 58.0 | 123.2 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.737 | 0.204 | ~ |
| 59.0 | 123.2 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.733 | 0.204 | ~ |
| 60.0 | 123.2 | 1 | 14.0 | 55.0 | 0 | 84.0 | | 0.600 | 20.1 | ~ | 0.728 | 0.204 | ~ |
| 61.0 | 123.2 | 1 | 11.0 | 60.0 | 0 | 64.4 | | 0.600 | 17.3 | ~ | 0.723 | 0.204 | ~ |
| 62.0 | 123.2 | 1 | 11.0 | 60.0 | 0 | 64.4 | | 0.600 | 17.3 | ~ | 0.719 | 0.204 | ~ |
| 63.0 | 135.0 | 1 | 11.0 | 60.0 | 0 | 64.4 | | 0.600 | 17.3 | ~ | 0.714 | 0.203 | ~ |
| 64.0 | 135.0 | 1 | 11.0 | 60.0 | 0 | 64.4 | | 0.600 | 17.3 | ~ | 0.710 | 0.203 | ~ |
| 65.0 | 135.0 | 1 | 11.0 | 60.0 | 0 | 64.4 | | 0.600 | 17.3 | ~ | 0.705 | 0.203 | ~ |
| 66.0 | 134.9 | 1 | 33.0 | 65.0 | 1 | 0.0 | 69 | 0.600 | 30.9 | Infin. | 0.701 | 0.203 | Non-Liq. |
| 67.0 | 134.9 | 1 | 33.0 | 65.0 | 1 | 0.0 | 69 | 0.600 | 30.9 | Infin. | 0.696 | 0.202 | Non-Liq. |
| 68.0 | 134.9 | 1 | 33.0 | 65.0 | 1 | 0.0 | 69 | 0.600 | 30.9 | Infin. | 0.691 | 0.202 | Non-Liq. |
| 69.0 | 134.9 | 1 | 33.0 | 65.0 | 1 | 0.0 | 69 | 0.600 | 30.9 | Infin. | 0.687 | 0.201 | Non-Liq. |
| 70.0 | 134.9 | 1 | 33.0 | 65.0 | 1 | 0.0 | 69 | 0.600 | 30.9 | Infin. | 0.682 | 0.201 | Non-Liq. |
| 71.0 | 134.9 | 1 | 34.0 | 70.0 | 1 | 0.0 | 69 | 0.600 | 31.8 | Infin. | 0.678 | 0.200 | Non-Liq. |
| 72.0 | 134.9 | 1 | 34.0 | 70.0 | 1 | 0.0 | 69 | 0.600 | 31.8 | Infin. | 0.673 | 0.200 | Non-Liq. |
| 73.0 | 134.8 | 1 | 34.0 | 70.0 | 1 | 0.0 | 69 | 0.600 | 31.8 | Infin. | 0.669 | 0.199 | Non-Liq. |
| 74.0 | 134.8 | 1 | 34.0 | 70.0 | 1 | 0.0 | 69 | 0.600 | 31.8 | Infin. | 0.664 | 0.199 | Non-Liq. |
| 75.0 | 134.8 | 1 | 34.0 | 70.0 | 1 | 0.0 | 69 | 0.600 | 31.8 | Infin. | 0.659 | 0.198 | Non-Liq. |
| 76.0 | 134.8 | 1 | 33.0 | 75.0 | 1 | 0.0 | 66 | 0.600 | 30.9 | Infin. | 0.655 | 0.198 | Non-Liq. |
| 77.0 | 134.8 | 1 | 33.0 | 75.0 | 1 | 0.0 | 66 | 0.600 | 30.9 | Infin. | 0.650 | 0.197 | Non-Liq. |
| 78.0 | 140.5 | 1 | 35.0 | 80.0 | 1 | 0.0 | 67 | 0.600 | 32.8 | Infin. | 0.646 | 0.196 | Non-Liq. |
| 79.0 | 140.5 | 1 | 35.0 | 80.0 | 1 | 0.0 | 67 | 0.600 | 32.8 | Infin. | 0.641 | 0.196 | Non-Liq. |
| 80.0 | 140.5 | 1 | 35.0 | 80.0 | 1 | 0.0 | 67 | 0.600 | 32.8 | Infin. | 0.637 | 0.195 | Non-Liq. |
| 81.0 | 140.5 | 1 | 35.0 | 80.0 | 1 | 0.0 | 67 | 0.600 | 32.8 | Infin. | 0.632 | 0.194 | Non-Liq. |
| 82.0 | 140.5 | 1 | 35.0 | 80.0 | 1 | 0.0 | 67 | 0.600 | 32.8 | Infin. | 0.627 | 0.193 | Non-Liq. |
| 83.0 | 135.5 | 1 | 34.0 | 85.0 | 1 | 0.0 | 65 | 0.600 | 31.8 | Infin. | 0.625 | 0.193 | Non-Liq. |
| 84.0 | 135.5 | 1 | 34.0 | 85.0 | 1 | 0.0 | 65 | 0.600 | 31.8 | Infin. | 0.625 | 0.194 | Non-Liq. |
| 85.0 | 135.5 | 1 | 34.0 | 85.0 | 1 | 0.0 | 65 | 0.600 | 31.8 | Infin. | 0.625 | 0.194 | Non-Liq. |
| 86.0 | 135.5 | 1 | 34.0 | 85.0 | 1 | 0.0 | 65 | 0.600 | 31.8 | Infin. | 0.625 | 0.195 | Non-Liq. |
| 87.0 | 135.5 | 1 | 34.0 | 85.0 | 1 | 0.0 | 65 | 0.600 | 31.8 | Infin. | 0.625 | 0.196 | Non-Liq. |
| 88.0 | 137.7 | 1 | 33.0 | 90.0 | 1 | 0.0 | 63 | 0.600 | 30.9 | Infin. | 0.625 | 0.196 | Non-Liq. |
| 89.0 | 137.7 | 1 | 33.0 | 90.0 | 1 | 0.0 | 63 | 0.600 | 30.9 | Infin. | 0.625 | 0.197 | Non-Liq. |
| 90.0 | 137.7 | 1 | 33.0 | 90.0 | 1 | 0.0 | 63 | 0.600 | 30.9 | Infin. | 0.625 | 0.197 | Non-Liq. |

# Appendix C

*Noise Measurements Data*

-  Freq Weight : A
-  Time Weight : FAST
-  Level Range : 40-100
-  Max dB : 93.3 - 2015/11/19 16:35:04
-  Level Range : 40-100
-  SEL : 104.2
-  Leq : 74.7
-

| No.s | Date Time | (dB) | | | | |
|---|---|---|---|---|---|---|
| 1 | 2015/11/19 16:21:26 | 75.1 | 75.6 | 75.4 | 75.3 | 75.0 |
| 6 | 2015/11/19 16:21:31 | 75.9 | 75.8 | 75.8 | 75.2 | 75.5 |
| 11 | 2015/11/19 16:21:36 | 75.0 | 75.2 | 75.6 | 76.4 | 75.7 |
| 16 | 2015/11/19 16:21:41 | 76.8 | 79.0 | 76.9 | 73.8 | 73.2 |
| 21 | 2015/11/19 16:21:46 | 72.7 | 77.2 | 82.7 | 78.7 | 74.9 |
| 26 | 2015/11/19 16:21:51 | 73.5 | 74.1 | 73.2 | 74.3 | 76.6 |
| 31 | 2015/11/19 16:21:56 | 80.1 | 82.3 | 81.4 | 81.1 | 79.1 |
| 36 | 2015/11/19 16:22:01 | 78.3 | 77.2 | 76.8 | 74.8 | 73.8 |
| 41 | 2015/11/19 16:22:06 | 75.6 | 73.9 | 72.7 | 72.1 | 72.8 |
| 46 | 2015/11/19 16:22:11 | 71.7 | 73.7 | 74.2 | 73.4 | 73.4 |
| 51 | 2015/11/19 16:22:16 | 72.9 | 74.8 | 74.0 | 72.7 | 74.1 |
| 56 | 2015/11/19 16:22:21 | 73.3 | 71.5 | 68.8 | 69.0 | 65.3 |
| 61 | 2015/11/19 16:22:26 | 62.9 | 63.1 | 63.2 | 63.7 | 63.0 |
| 66 | 2015/11/19 16:22:31 | 63.4 | 63.5 | 65.2 | 65.7 | 69.1 |
| 71 | 2015/11/19 16:22:36 | 72.1 | 70.0 | 67.8 | 69.2 | 72.4 |
| 76 | 2015/11/19 16:22:41 | 76.6 | 76.1 | 71.1 | 66.9 | 68.7 |
| 81 | 2015/11/19 16:22:46 | 73.6 | 74.4 | 69.9 | 65.9 | 64.9 |
| 86 | 2015/11/19 16:22:51 | 68.3 | 72.7 | 73.4 | 75.8 | 78.2 |
| 91 | 2015/11/19 16:22:56 | 79.2 | 81.5 | 81.5 | 85.9 | 79.8 |
| 96 | 2015/11/19 16:23:01 | 81.7 | 80.3 | 79.0 | 77.6 | 75.6 |
| 101 | 2015/11/19 16:23:06 | 76.8 | 80.5 | 78.0 | 76.6 | 75.3 |
| 106 | 2015/11/19 16:23:11 | 77.0 | 80.8 | 79.8 | 80.3 | 78.8 |
| 111 | 2015/11/19 16:23:16 | 77.9 | 80.4 | 78.5 | 76.5 | 75.8 |
| 116 | 2015/11/19 16:23:21 | 74.9 | 75.1 | 77.4 | 74.7 | 76.8 |
| 121 | 2015/11/19 16:23:26 | 75.8 | 76.6 | 76.1 | 77.0 | 76.0 |
| 126 | 2015/11/19 16:23:31 | 78.3 | 76.5 | 77.1 | 76.2 | 77.2 |
| 131 | 2015/11/19 16:23:36 | 76.1 | 76.0 | 76.0 | 76.8 | 74.2 |
| 136 | 2015/11/19 16:23:41 | 75.0 | 77.4 | 80.0 | 84.8 | 79.4 |
| 141 | 2015/11/19 16:23:46 | 76.2 | 73.7 | 72.1 | 71.8 | 71.2 |
| 146 | 2015/11/19 16:23:51 | 70.6 | 70.9 | 71.1 | 71.8 | 71.7 |
| 151 | 2015/11/19 16:23:56 | 72.2 | 70.9 | 71.9 | 72.9 | 74.2 |
| 156 | 2015/11/19 16:24:01 | 73.9 | 73.2 | 71.1 | 71.7 | 70.1 |
| 161 | 2015/11/19 16:24:06 | 69.1 | 70.0 | 66.7 | 64.2 | 63.2 |
| 166 | 2015/11/19 16:24:11 | 64.1 | 66.2 | 69.8 | 74.7 | 70.1 |
| 171 | 2015/11/19 16:24:16 | 67.4 | 65.7 | 66.2 | 67.5 | 67.2 |
| 176 | 2015/11/19 16:24:21 | 68.3 | 69.5 | 73.9 | 72.9 | 71.1 |
| 181 | 2015/11/19 16:24:26 | 74.5 | 74.5 | 71.8 | 68.0 | 68.3 |
| 186 | 2015/11/19 16:24:31 | 77.1 | 72.7 | 74.4 | 75.6 | 74.4 |
| 191 | 2015/11/19 16:24:36 | 77.4 | 78.5 | 79.8 | 79.5 | 80.4 |
| 196 | 2015/11/19 16:24:41 | 78.0 | 77.2 | 77.7 | 77.5 | 74.5 |
| 201 | 2015/11/19 16:24:46 | 75.7 | 76.3 | 76.9 | 76.8 | 77.3 |
| 206 | 2015/11/19 16:24:51 | 81.0 | 83.8 | 77.8 | 76.4 | 75.5 |
| 211 | 2015/11/19 16:24:56 | 75.2 | 74.1 | 75.8 | 78.8 | 80.1 |
| 216 | 2015/11/19 16:25:01 | 75.8 | 70.9 | 70.0 | 71.4 | 75.1 |
| 221 | 2015/11/19 16:25:06 | 79.7 | 79.6 | 76.2 | 77.8 | 79.2 |
| 226 | 2015/11/19 16:25:11 | 77.6 | 76.5 | 76.6 | 78.4 | 76.0 |
| 231 | 2015/11/19 16:25:16 | 75.5 | 74.7 | 73.8 | 76.0 | 75.7 |
| 236 | 2015/11/19 16:25:21 | 75.9 | 77.1 | 75.1 | 76.1 | 75.5 |
| 241 | 2015/11/19 16:25:26 | 72.7 | 72.4 | 73.2 | 74.5 | 73.0 |
| 246 | 2015/11/19 16:25:31 | 75.7 | 73.5 | 72.4 | 75.1 | 74.4 |
| 251 | 2015/11/19 16:25:36 | 78.0 | 79.2 | 79.8 | 77.2 | 75.0 |
| 256 | 2015/11/19 16:25:41 | 72.5 | 72.2 | 72.4 | 74.0 | 72.3 |
| 261 | 2015/11/19 16:25:46 | 71.8 | 71.6 | 70.4 | 69.3 | 68.9 |
| 266 | 2015/11/19 16:25:51 | 66.2 | 62.7 | 61.5 | 59.9 | 60.5 |
| 271 | 2015/11/19 16:25:56 | 61.6 | 62.7 | 64.4 | 66.7 | 69.3 |
| 276 | 2015/11/19 16:26:01 | 73.4 | 75.0 | 74.7 | 76.6 | 75.5 |
| 281 | 2015/11/19 16:26:06 | 74.3 | 74.4 | 74.5 | 72.3 | 73.4 |
| 286 | 2015/11/19 16:26:11 | 71.8 | 73.0 | 77.1 | 75.1 | 72.7 |
| 291 | 2015/11/19 16:26:16 | 75.2 | 74.1 | 72.1 | 71.6 | 72.6 |
| 296 | 2015/11/19 16:26:21 | 74.8 | 73.5 | 73.5 | 75.3 | 78.6 |
| 301 | 2015/11/19 16:26:26 | 82.9 | 78.1 | 74.5 | 75.5 | 75.0 |
| 306 | 2015/11/19 16:26:31 | 79.2 | 85.2 | 80.4 | 76.6 | 74.5 |
| 311 | 2015/11/19 16:26:36 | 74.1 | 75.0 | 75.8 | 76.9 | 74.4 |
| 316 | 2015/11/19 16:26:41 | 75.5 | 74.0 | 74.3 | 74.5 | 73.2 |
| 321 | 2015/11/19 16:26:46 | 74.2 | 73.9 | 74.2 | 75.7 | 77.5 |
| 326 | 2015/11/19 16:26:51 | 75.5 | 76.1 | 73.6 | 73.0 | 71.4 |
| 331 | 2015/11/19 16:26:56 | 73.9 | 71.9 | 73.8 | 76.0 | 76.9 |
| 336 | 2015/11/19 16:27:01 | 72.8 | 68.1 | 64.4 | 64.7 | 72.0 |
| 341 | 2015/11/19 16:27:06 | 74.6 | 73.4 | 73.1 | 70.0 | 68.8 |
| 346 | 2015/11/19 16:27:11 | 71.2 | 73.8 | 75.1 | 76.1 | 73.5 |
| 351 | 2015/11/19 16:27:16 | 73.3 | 74.4 | 71.6 | 70.1 | 69.4 |
| 356 | 2015/11/19 16:27:21 | 70.7 | 71.7 | 73.0 | 71.2 | 71.6 |
| 361 | 2015/11/19 16:27:26 | 71.4 | 73.0 | 71.2 | 69.3 | 69.5 |
| 366 | 2015/11/19 16:27:31 | 70.8 | 68.0 | 67.3 | 65.8 | 64.7 |
| 371 | 2015/11/19 16:27:36 | 66.9 | 70.0 | 67.5 | 68.4 | 72.0 |
| 376 | 2015/11/19 16:27:41 | 75.9 | 73.3 | 71.8 | 72.4 | 70.3 |
| 381 | 2015/11/19 16:27:46 | 71.7 | 71.1 | 67.9 | 64.8 | 63.3 |
| 386 | 2015/11/19 16:27:51 | 64.5 | 67.1 | 70.1 | 74.4 | 77.2 |
| 391 | 2015/11/19 16:27:56 | 81.3 | 77.8 | 75.3 | 76.1 | 77.1 |
| 396 | 2015/11/19 16:28:01 | 78.2 | 77.9 | 77.8 | 81.7 | 80.5 |
| 401 | 2015/11/19 16:28:06 | 79.2 | 79.8 | 79.8 | 78.3 | 79.1 |
| 406 | 2015/11/19 16:28:11 | 78.3 | 78.7 | 77.5 | 79.3 | 77.7 |
| 411 | 2015/11/19 16:28:16 | 76.9 | 79.8 | 78.3 | 79.9 | 78.4 |
| 416 | 2015/11/19 16:28:21 | 78.2 | 75.9 | 75.5 | 78.5 | 76.8 |
| 421 | 2015/11/19 16:28:26 | 78.6 | 77.7 | 76.3 | 75.8 | 74.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 426 | 2015/11/19 | 16:28:31 | 73.0 | 73.9 | 77.3 | 77.3 | 75.5 |
| 431 | 2015/11/19 | 16:28:36 | 75.9 | 75.2 | 77.4 | 78.8 | 81.0 |
| 436 | 2015/11/19 | 16:28:41 | 81.3 | 81.1 | 77.9 | 74.9 | 73.9 |
| 441 | 2015/11/19 | 16:28:46 | 76.6 | 73.4 | 72.1 | 72.6 | 72.6 |
| 446 | 2015/11/19 | 16:28:51 | 72.4 | 72.3 | 71.3 | 71.4 | 70.0 |
| 451 | 2015/11/19 | 16:28:56 | 69.9 | 69.2 | 69.7 | 68.8 | 70.0 |
| 456 | 2015/11/19 | 16:29:01 | 69.1 | 69.5 | 71.5 | 72.3 | 70.1 |
| 461 | 2015/11/19 | 16:29:06 | 67.6 | 65.4 | 65.8 | 64.5 | 64.2 |
| 466 | 2015/11/19 | 16:29:11 | 63.9 | 63.2 | 62.9 | 62.6 | 61.8 |
| 471 | 2015/11/19 | 16:29:16 | 61.4 | 60.6 | 59.2 | 58.8 | 58.3 |
| 476 | 2015/11/19 | 16:29:21 | 58.8 | 61.1 | 63.5 | 66.3 | 70.0 |
| 481 | 2015/11/19 | 16:29:26 | 72.9 | 69.8 | 68.1 | 68.5 | 69.3 |
| 486 | 2015/11/19 | 16:29:31 | 67.0 | 69.7 | 72.9 | 78.2 | 75.6 |
| 491 | 2015/11/19 | 16:29:36 | 78.1 | 75.2 | 74.8 | 78.9 | 81.8 |
| 496 | 2015/11/19 | 16:29:41 | 78.9 | 80.6 | 77.7 | 76.5 | 78.9 |
| 501 | 2015/11/19 | 16:29:46 | 77.1 | 76.9 | 76.2 | 77.2 | 75.8 |
| 506 | 2015/11/19 | 16:29:51 | 75.9 | 79.5 | 79.0 | 80.9 | 76.9 |
| 511 | 2015/11/19 | 16:29:56 | 78.0 | 77.5 | 75.7 | 73.3 | 73.1 |
| 516 | 2015/11/19 | 16:30:01 | 75.8 | 80.4 | 79.0 | 75.7 | 76.6 |
| 521 | 2015/11/19 | 16:30:06 | 77.2 | 78.7 | | | |

-  Freq Weight : A
-  Time Weight : FAST
-  Level Range : 40-100
-  Max dB : 87.4 - 2015/11/19 17:16:22
-  Level Range : 40-100
-  SEL : 93.7
-  Leq : 64.2
-

| No.s | Date Time | (dB) | | | | |
|---|---|---|---|---|---|---|
| 1 | 2015/11/19 17:04:35 | 52.9 | 53.1 | 55.0 | 59.1 | 57.4 |
| 6 | 2015/11/19 17:04:40 | 54.7 | 54.2 | 56.4 | 56.8 | 58.6 |
| 11 | 2015/11/19 17:04:45 | 59.9 | 61.7 | 64.3 | 69.0 | 71.5 |
| 16 | 2015/11/19 17:04:50 | 68.5 | 63.7 | 58.9 | 59.0 | 57.1 |
| 21 | 2015/11/19 17:04:55 | 56.7 | 55.4 | 55.6 | 56.6 | 59.6 |
| 26 | 2015/11/19 17:05:00 | 59.7 | 62.8 | 61.7 | 57.3 | 57.7 |
| 31 | 2015/11/19 17:05:05 | 56.8 | 59.3 | 57.5 | 59.0 | 59.0 |
| 36 | 2015/11/19 17:05:10 | 56.9 | 57.2 | 56.4 | 57.0 | 56.1 |
| 41 | 2015/11/19 17:05:15 | 55.7 | 56.6 | 56.3 | 55.6 | 55.2 |
| 46 | 2015/11/19 17:05:20 | 57.6 | 55.5 | 55.6 | 56.7 | 57.1 |
| 51 | 2015/11/19 17:05:25 | 58.3 | 57.5 | 56.8 | 56.2 | 56.2 |
| 56 | 2015/11/19 17:05:30 | 55.9 | 56.1 | 56.5 | 57.4 | 55.9 |
| 61 | 2015/11/19 17:05:35 | 56.0 | 57.7 | 56.9 | 57.9 | 56.2 |
| 66 | 2015/11/19 17:05:40 | 55.7 | 54.9 | 53.9 | 54.3 | 54.5 |
| 71 | 2015/11/19 17:05:45 | 54.2 | 54.2 | 53.9 | 53.1 | 51.8 |
| 76 | 2015/11/19 17:05:50 | 51.7 | 51.0 | 50.1 | 50.5 | 49.7 |
| 81 | 2015/11/19 17:05:55 | 49.8 | 51.3 | 52.8 | 50.6 | 50.9 |
| 86 | 2015/11/19 17:06:00 | 52.8 | 52.2 | 52.6 | 53.2 | 55.7 |
| 91 | 2015/11/19 17:06:05 | 54.2 | 51.6 | 50.2 | 52.7 | 58.5 |
| 96 | 2015/11/19 17:06:10 | 53.9 | 51.4 | 52.6 | 53.9 | 54.4 |
| 101 | 2015/11/19 17:06:15 | 53.3 | 55.2 | 55.4 | 55.1 | 54.6 |
| 106 | 2015/11/19 17:06:20 | 55.7 | 56.9 | 56.9 | 57.0 | 57.1 |
| 111 | 2015/11/19 17:06:25 | 57.7 | 57.8 | 59.6 | 58.7 | 58.4 |
| 116 | 2015/11/19 17:06:30 | 57.8 | 58.7 | 60.8 | 61.2 | 61.9 |
| 121 | 2015/11/19 17:06:35 | 63.9 | 66.1 | 72.6 | 64.0 | 59.8 |
| 126 | 2015/11/19 17:06:40 | 57.4 | 56.2 | 57.1 | 56.3 | 56.5 |
| 131 | 2015/11/19 17:06:45 | 56.3 | 59.1 | 63.4 | 63.2 | 58.2 |
| 136 | 2015/11/19 17:06:50 | 56.2 | 57.7 | 57.0 | 55.5 | 54.8 |
| 141 | 2015/11/19 17:06:55 | 56.3 | 56.6 | 55.8 | 59.0 | 58.1 |
| 146 | 2015/11/19 17:07:00 | 55.9 | 56.0 | 57.9 | 57.1 | 56.8 |
| 151 | 2015/11/19 17:07:05 | 56.6 | 55.7 | 55.4 | 58.2 | 56.1 |
| 156 | 2015/11/19 17:07:10 | 56.0 | 56.1 | 56.5 | 56.5 | 56.0 |
| 161 | 2015/11/19 17:07:15 | 55.6 | 57.0 | 57.8 | 58.5 | 57.2 |
| 166 | 2015/11/19 17:07:20 | 56.6 | 56.9 | 56.7 | 57.8 | 58.0 |
| 171 | 2015/11/19 17:07:25 | 58.8 | 57.4 | 56.9 | 58.3 | 56.7 |
| 176 | 2015/11/19 17:07:30 | 58.0 | 56.6 | 56.4 | 57.2 | 58.0 |
| 181 | 2015/11/19 17:07:35 | 59.3 | 59.6 | 60.3 | 61.5 | 58.6 |
| 186 | 2015/11/19 17:07:40 | 56.1 | 56.0 | 55.5 | 55.5 | 56.8 |
| 191 | 2015/11/19 17:07:45 | 54.6 | 56.1 | 58.7 | 58.7 | 61.2 |
| 196 | 2015/11/19 17:07:50 | 64.5 | 66.9 | 66.4 | 66.0 | 65.3 |
| 201 | 2015/11/19 17:07:55 | 66.9 | 62.1 | 59.3 | 56.8 | 57.5 |
| 206 | 2015/11/19 17:08:00 | 57.9 | 59.0 | 61.0 | 59.9 | 58.9 |
| 211 | 2015/11/19 17:08:05 | 59.1 | 58.8 | 56.1 | 55.8 | 55.2 |
| 216 | 2015/11/19 17:08:10 | 55.4 | 56.9 | 57.3 | 57.1 | 56.8 |
| 221 | 2015/11/19 17:08:15 | 56.5 | 57.4 | 57.4 | 56.6 | 56.6 |
| 226 | 2015/11/19 17:08:20 | 55.8 | 55.0 | 55.0 | 54.3 | 56.3 |
| 231 | 2015/11/19 17:08:25 | 55.3 | 57.9 | 56.6 | 56.6 | 57.2 |
| 236 | 2015/11/19 17:08:30 | 56.8 | 54.6 | 55.3 | 55.0 | 53.8 |
| 241 | 2015/11/19 17:08:35 | 55.3 | 55.4 | 54.7 | 54.6 | 54.3 |
| 246 | 2015/11/19 17:08:40 | 54.9 | 54.9 | 55.9 | 55.3 | 55.8 |
| 251 | 2015/11/19 17:08:45 | 56.7 | 56.9 | 58.0 | 59.1 | 60.9 |
| 256 | 2015/11/19 17:08:50 | 60.5 | 58.5 | 56.6 | 56.3 | 54.4 |
| 261 | 2015/11/19 17:08:55 | 54.8 | 54.4 | 53.8 | 54.3 | 55.0 |
| 266 | 2015/11/19 17:09:00 | 55.1 | 56.6 | 55.1 | 55.7 | 55.8 |
| 271 | 2015/11/19 17:09:05 | 57.3 | 58.5 | 58.3 | 59.9 | 60.1 |
| 276 | 2015/11/19 17:09:10 | 61.3 | 65.3 | 61.5 | 58.7 | 57.8 |
| 281 | 2015/11/19 17:09:15 | 58.4 | 62.9 | 65.8 | 68.1 | 62.5 |
| 286 | 2015/11/19 17:09:20 | 57.0 | 54.1 | 51.8 | 51.2 | 50.6 |
| 291 | 2015/11/19 17:09:25 | 50.6 | 50.3 | 50.0 | 50.1 | 50.5 |
| 296 | 2015/11/19 17:09:30 | 50.4 | 51.0 | 54.4 | 55.6 | 59.4 |
| 301 | 2015/11/19 17:09:35 | 62.8 | 68.7 | 68.0 | 63.3 | 60.2 |
| 306 | 2015/11/19 17:09:40 | 58.3 | 57.7 | 57.7 | 57.9 | 57.6 |
| 311 | 2015/11/19 17:09:45 | 57.3 | 58.8 | 59.2 | 60.8 | 64.9 |
| 316 | 2015/11/19 17:09:50 | 69.0 | 67.5 | 60.5 | 58.4 | 55.4 |
| 321 | 2015/11/19 17:09:55 | 54.9 | 55.3 | 55.9 | 55.6 | 57.7 |
| 326 | 2015/11/19 17:10:00 | 58.3 | 62.1 | 61.3 | 58.3 | 58.0 |
| 331 | 2015/11/19 17:10:05 | 56.5 | 56.4 | 56.2 | 57.3 | 57.1 |
| 336 | 2015/11/19 17:10:10 | 56.1 | 57.1 | 63.5 | 55.2 | 61.4 |
| 341 | 2015/11/19 17:10:15 | 56.4 | 58.2 | 58.0 | 58.8 | 58.7 |
| 346 | 2015/11/19 17:10:20 | 58.1 | 57.7 | 61.7 | 61.4 | 59.3 |
| 351 | 2015/11/19 17:10:25 | 60.3 | 62.3 | 63.8 | 63.0 | 58.3 |
| 356 | 2015/11/19 17:10:30 | 57.3 | 54.7 | 54.4 | 53.8 | 53.9 |
| 361 | 2015/11/19 17:10:35 | 52.7 | 52.8 | 52.8 | 53.3 | 53.2 |
| 366 | 2015/11/19 17:10:40 | 53.5 | 54.3 | 54.0 | 54.8 | 56.0 |
| 371 | 2015/11/19 17:10:45 | 57.5 | 58.8 | 59.4 | 65.5 | 62.5 |
| 376 | 2015/11/19 17:10:50 | 58.0 | 57.0 | 57.3 | 60.4 | 57.0 |
| 381 | 2015/11/19 17:10:55 | 58.4 | 57.4 | 61.0 | 59.8 | 59.3 |
| 386 | 2015/11/19 17:11:00 | 63.8 | 63.2 | 61.6 | 59.7 | 61.1 |
| 391 | 2015/11/19 17:11:05 | 62.5 | 65.8 | 62.2 | 57.8 | 57.6 |
| 396 | 2015/11/19 17:11:10 | 56.5 | 63.0 | 54.2 | 54.5 | 55.3 |
| 401 | 2015/11/19 17:11:15 | 55.8 | 54.5 | 54.1 | 54.5 | 55.6 |
| 406 | 2015/11/19 17:11:20 | 56.4 | 56.8 | 56.5 | 59.6 | 57.0 |
| 411 | 2015/11/19 17:11:25 | 57.6 | 56.0 | 56.8 | 56.4 | 57.0 |
| 416 | 2015/11/19 17:11:30 | 55.8 | 55.6 | 56.6 | 56.2 | 55.9 |
| 421 | 2015/11/19 17:11:35 | 56.3 | 56.2 | 56.2 | 56.6 | 56.8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 426 | 2015/11/19 | 17:11:40 | 56.6 | 55.7 | 54.8 | 54.2 | 53.8 |
| 431 | 2015/11/19 | 17:11:45 | 58.7 | 57.0 | 56.7 | 56.2 | 56.2 |
| 436 | 2015/11/19 | 17:11:50 | 58.5 | 61.2 | 56.8 | 58.6 | 62.5 |
| 441 | 2015/11/19 | 17:11:55 | 63.0 | 66.4 | 64.5 | 60.4 | 58.6 |
| 446 | 2015/11/19 | 17:12:00 | 57.6 | 56.5 | 54.6 | 55.8 | 56.2 |
| 451 | 2015/11/19 | 17:12:05 | 57.2 | 56.8 | 56.3 | 55.9 | 56.5 |
| 456 | 2015/11/19 | 17:12:10 | 55.6 | 56.3 | 55.0 | 55.5 | 55.3 |
| 461 | 2015/11/19 | 17:12:15 | 54.5 | 55.2 | 55.9 | 56.0 | 56.6 |
| 466 | 2015/11/19 | 17:12:20 | 55.1 | 55.4 | 54.8 | 53.5 | 54.3 |
| 471 | 2015/11/19 | 17:12:25 | 57.3 | 59.2 | 63.4 | 69.2 | 67.9 |
| 476 | 2015/11/19 | 17:12:30 | 63.0 | 61.0 | 58.5 | 56.1 | 55.2 |
| 481 | 2015/11/19 | 17:12:35 | 54.0 | 52.0 | 50.0 | 49.7 | 48.8 |
| 486 | 2015/11/19 | 17:12:40 | 48.8 | 49.9 | 50.1 | 51.1 | 51.7 |
| 491 | 2015/11/19 | 17:12:45 | 51.2 | 51.6 | 51.4 | 52.2 | 55.3 |
| 496 | 2015/11/19 | 17:12:50 | 51.3 | 49.7 | 50.0 | 50.8 | 51.8 |
| 501 | 2015/11/19 | 17:12:55 | 53.8 | 54.2 | 54.6 | 54.2 | 58.0 |
| 506 | 2015/11/19 | 17:13:00 | 57.2 | 56.9 | 57.6 | 59.9 | 62.1 |
| 511 | 2015/11/19 | 17:13:05 | 60.6 | 59.4 | 57.7 | 58.1 | 58.4 |
| 516 | 2015/11/19 | 17:13:10 | 57.8 | 57.8 | 57.2 | 58.4 | 59.1 |
| 521 | 2015/11/19 | 17:13:15 | 57.1 | 56.5 | 56.3 | 56.6 | 56.6 |
| 526 | 2015/11/19 | 17:13:20 | 56.1 | 55.4 | 55.1 | 56.0 | 55.3 |
| 531 | 2015/11/19 | 17:13:25 | 54.1 | 55.9 | 55.5 | 55.8 | 55.5 |
| 536 | 2015/11/19 | 17:13:30 | 54.1 | 54.7 | 54.6 | 54.7 | 55.2 |
| 541 | 2015/11/19 | 17:13:35 | 55.3 | 55.9 | 55.0 | 55.3 | 56.3 |
| 546 | 2015/11/19 | 17:13:40 | 54.5 | 54.9 | 57.5 | 57.6 | 58.9 |
| 551 | 2015/11/19 | 17:13:45 | 58.4 | 57.8 | 57.4 | 58.8 | 56.7 |
| 556 | 2015/11/19 | 17:13:50 | 55.0 | 58.5 | 59.8 | 60.1 | 58.1 |
| 561 | 2015/11/19 | 17:13:55 | 58.0 | 56.4 | 56.1 | 61.6 | 60.6 |
| 566 | 2015/11/19 | 17:14:00 | 60.3 | 60.7 | 57.4 | 53.8 | 52.8 |
| 571 | 2015/11/19 | 17:14:05 | 51.6 | 51.0 | 49.8 | 50.4 | 50.3 |
| 576 | 2015/11/19 | 17:14:10 | 51.6 | 53.4 | 54.5 | 57.5 | 59.2 |
| 581 | 2015/11/19 | 17:14:15 | 65.0 | 69.3 | 65.8 | 67.1 | 64.6 |
| 586 | 2015/11/19 | 17:14:20 | 58.9 | 56.6 | 54.5 | 53.6 | 54.7 |
| 591 | 2015/11/19 | 17:14:25 | 53.5 | 52.2 | 52.1 | 52.6 | 54.0 |
| 596 | 2015/11/19 | 17:14:30 | 53.3 | 53.9 | 55.3 | 55.7 | 54.8 |
| 601 | 2015/11/19 | 17:14:35 | 56.3 | 59.2 | 60.2 | 59.4 | 59.0 |
| 606 | 2015/11/19 | 17:14:40 | 57.6 | 58.1 | 57.1 | 58.2 | 57.6 |
| 611 | 2015/11/19 | 17:14:45 | 56.6 | 56.6 | 56.0 | 56.5 | 56.9 |
| 616 | 2015/11/19 | 17:14:50 | 57.3 | 57.1 | 57.2 | 56.5 | 57.7 |
| 621 | 2015/11/19 | 17:14:55 | 56.4 | 57.8 | 55.2 | 55.9 | 54.8 |
| 626 | 2015/11/19 | 17:15:00 | 55.3 | 54.4 | 54.1 | 52.9 | 53.4 |
| 631 | 2015/11/19 | 17:15:05 | 52.8 | 53.4 | 53.6 | 53.8 | 54.1 |
| 636 | 2015/11/19 | 17:15:10 | 54.9 | 54.7 | 54.1 | 53.5 | 53.8 |
| 641 | 2015/11/19 | 17:15:15 | 56.1 | 56.4 | 55.6 | 54.2 | 53.7 |
| 646 | 2015/11/19 | 17:15:20 | 55.1 | 57.3 | 59.0 | 57.9 | 54.8 |
| 651 | 2015/11/19 | 17:15:25 | 53.4 | 53.9 | 53.5 | 53.1 | 53.4 |
| 656 | 2015/11/19 | 17:15:30 | 57.2 | 56.8 | 56.6 | 55.2 | 55.9 |
| 661 | 2015/11/19 | 17:15:35 | 56.6 | 58.4 | 61.1 | 61.8 | 57.5 |
| 666 | 2015/11/19 | 17:15:40 | 55.5 | 56.0 | 55.2 | 58.4 | 55.9 |
| 671 | 2015/11/19 | 17:15:45 | 58.5 | 58.3 | 58.0 | 60.1 | 60.6 |
| 676 | 2015/11/19 | 17:15:50 | 60.0 | 59.2 | 59.6 | 60.7 | 58.2 |
| 681 | 2015/11/19 | 17:15:55 | 62.6 | 62.4 | 61.0 | 61.8 | 58.6 |
| 686 | 2015/11/19 | 17:16:00 | 60.9 | 63.3 | 61.0 | 56.3 | 59.1 |
| 691 | 2015/11/19 | 17:16:05 | 56.0 | 65.0 | 60.5 | 61.2 | 67.0 |
| 696 | 2015/11/19 | 17:16:10 | 68.2 | 71.5 | 69.3 | 70.7 | 73.2 |
| 701 | 2015/11/19 | 17:16:15 | 66.8 | 75.4 | 75.4 | 76.2 | 81.3 |
| 706 | 2015/11/19 | 17:16:20 | 75.7 | 82.9 | 85.2 | 78.8 | 76.8 |
| 711 | 2015/11/19 | 17:16:25 | 68.7 | 66.5 | 68.8 | 67.2 | 60.3 |
| 716 | 2015/11/19 | 17:16:30 | 59.5 | 56.7 | 59.3 | 58.2 | 56.3 |
| 721 | 2015/11/19 | 17:16:35 | 55.8 | 53.8 | 56.2 | 55.7 | 54.5 |
| 726 | 2015/11/19 | 17:16:40 | 55.1 | 54.9 | 55.3 | 54.7 | 53.8 |
| 731 | 2015/11/19 | 17:16:45 | 53.5 | 53.9 | 53.2 | 54.9 | 55.6 |
| 736 | 2015/11/19 | 17:16:50 | 51.7 | 50.7 | 48.8 | 48.6 | 51.5 |
| 741 | 2015/11/19 | 17:16:55 | 49.2 | 48.7 | 49.4 | 49.5 | 50.4 |
| 746 | 2015/11/19 | 17:17:00 | 60.0 | 52.0 | 52.0 | 51.6 | 53.5 |
| 751 | 2015/11/19 | 17:17:05 | 55.2 | 62.5 | 65.9 | 66.1 | 67.6 |
| 756 | 2015/11/19 | 17:17:10 | 69.2 | 70.5 | 74.0 | 82.8 | 82.2 |
| 761 | 2015/11/19 | 17:17:15 | 70.5 | 66.5 | 67.2 | 65.7 | 66.7 |
| 766 | 2015/11/19 | 17:17:20 | 68.3 | 67.9 | 66.8 | 66.7 | 65.6 |
| 771 | 2015/11/19 | 17:17:25 | 64.4 | 63.5 | 62.1 | 62.5 | 63.0 |
| 776 | 2015/11/19 | 17:17:30 | 60.6 | 59.4 | 60.2 | 57.3 | 58.6 |
| 781 | 2015/11/19 | 17:17:35 | 57.6 | 57.3 | 56.1 | 56.0 | 55.9 |
| 786 | 2015/11/19 | 17:17:40 | 55.9 | 55.9 | 56.2 | 56.0 | 56.0 |
| 791 | 2015/11/19 | 17:17:45 | 54.1 | 53.2 | 54.4 | 66.5 | 66.6 |
| 796 | 2015/11/19 | 17:17:50 | 55.2 | 53.7 | 52.6 | 52.7 | 52.8 |
| 801 | 2015/11/19 | 17:17:55 | 53.6 | 53.1 | 52.3 | 52.7 | 55.0 |
| 806 | 2015/11/19 | 17:18:00 | 56.0 | 59.6 | 64.2 | 70.5 | 66.9 |
| 811 | 2015/11/19 | 17:18:05 | 63.6 | 61.6 | 60.3 | 61.0 | 56.8 |
| 816 | 2015/11/19 | 17:18:10 | 54.3 | 53.5 | 53.8 | 54.8 | 54.4 |
| 821 | 2015/11/19 | 17:18:15 | 55.9 | 58.6 | 65.5 | 66.8 | 61.5 |
| 826 | 2015/11/19 | 17:18:20 | 58.9 | 58.6 | 57.8 | 57.0 | 55.9 |
| 831 | 2015/11/19 | 17:18:25 | 54.0 | 53.2 | 54.0 | 53.4 | 52.4 |
| 836 | 2015/11/19 | 17:18:30 | 53.3 | 53.7 | 52.6 | 53.9 | 56.3 |
| 841 | 2015/11/19 | 17:18:35 | 58.4 | 61.8 | 69.5 | 70.6 | 65.0 |
| 846 | 2015/11/19 | 17:18:40 | 67.5 | 67.6 | 65.9 | 63.5 | 61.2 |
| 851 | 2015/11/19 | 17:18:45 | 59.1 | 59.8 | 58.7 | 58.3 | 58.9 |
| 856 | 2015/11/19 | 17:18:50 | 57.7 | 57.0 | 57.1 | 57.4 | 56.9 |
| 861 | 2015/11/19 | 17:18:55 | 57.1 | 57.6 | 57.1 | 58.0 | 56.8 |
| 866 | 2015/11/19 | 17:19:00 | 56.2 | 56.9 | 57.9 | 57.2 | 56.5 |
| 871 | 2015/11/19 | 17:19:05 | 61.2 | 59.3 | 57.9 | 58.1 | 60.4 |
| 876 | 2015/11/19 | 17:19:10 | 58.9 | 57.6 | 55.2 | 55.8 | 54.3 |
| 881 | 2015/11/19 | 17:19:15 | 54.7 | 53.1 | 52.4 | 52.1 | 58.8 |
| 886 | 2015/11/19 | 17:19:20 | 53.3 | 52.1 | 51.1 | 51.2 | 51.4 |
| 891 | 2015/11/19 | 17:19:25 | 50.0 | 49.9 | 51.9 | 51.8 | 53.2 |
| 896 | 2015/11/19 | 17:19:30 | 54.4 | 57.6 | 63.9 | 65.4 | 60.8 |

-  Freq Weight : A
-  Time Weight : FAST
-  Level Range : 40-100
-  Max dB : 87.0 - 2015/11/19 17:34:20
-  Level Range : 40-100
-  SEL : 93.4
-  Leq : 63.9
-

| No.s | Date Time | (dB) | | | | |
|---|---|---|---|---|---|---|
| 1 | 2015/11/19 17:26:46 | 61.9 | 60.2 | 59.8 | 59.2 | 58.7 |
| 6 | 2015/11/19 17:26:51 | 57.7 | 57.6 | 57.6 | 57.5 | 57.2 |
| 11 | 2015/11/19 17:26:56 | 57.0 | 57.4 | 57.7 | 58.6 | 58.3 |
| 16 | 2015/11/19 17:27:01 | 58.8 | 58.3 | 58.6 | 60.1 | 59.6 |
| 21 | 2015/11/19 17:27:06 | 59.4 | 57.9 | 58.6 | 59.0 | 58.5 |
| 26 | 2015/11/19 17:27:11 | 58.7 | 57.8 | 58.1 | 57.9 | 57.0 |
| 31 | 2015/11/19 17:27:16 | 57.9 | 56.7 | 57.2 | 57.6 | 58.7 |
| 36 | 2015/11/19 17:27:21 | 60.6 | 60.2 | 60.4 | 62.8 | 59.9 |
| 41 | 2015/11/19 17:27:26 | 58.9 | 58.1 | 58.2 | 60.7 | 60.6 |
| 46 | 2015/11/19 17:27:31 | 60.6 | 57.7 | 58.4 | 56.9 | 56.9 |
| 51 | 2015/11/19 17:27:36 | 58.9 | 60.2 | 60.6 | 63.4 | 66.6 |
| 56 | 2015/11/19 17:27:41 | 71.1 | 70.8 | 64.2 | 60.3 | 58.6 |
| 61 | 2015/11/19 17:27:46 | 58.4 | 58.4 | 56.8 | 56.7 | 57.1 |
| 66 | 2015/11/19 17:27:51 | 57.9 | 58.2 | 58.9 | 60.7 | 61.0 |
| 71 | 2015/11/19 17:27:56 | 59.0 | 58.7 | 57.7 | 60.2 | 58.5 |
| 76 | 2015/11/19 17:28:01 | 59.2 | 58.5 | 58.1 | 59.4 | 59.9 |
| 81 | 2015/11/19 17:28:06 | 59.9 | 60.0 | 59.4 | 59.8 | 59.7 |
| 86 | 2015/11/19 17:28:11 | 59.4 | 59.4 | 58.7 | 59.1 | 60.0 |
| 91 | 2015/11/19 17:28:16 | 59.6 | 63.1 | 60.9 | 60.9 | 59.8 |
| 96 | 2015/11/19 17:28:21 | 58.6 | 58.3 | 57.8 | 58.0 | 57.7 |
| 101 | 2015/11/19 17:28:26 | 57.1 | 57.6 | 58.0 | 57.5 | 57.4 |
| 106 | 2015/11/19 17:28:31 | 57.7 | 58.4 | 58.6 | 60.0 | 62.6 |
| 111 | 2015/11/19 17:28:36 | 60.5 | 59.5 | 60.1 | 61.8 | 63.4 |
| 116 | 2015/11/19 17:28:41 | 65.0 | 66.2 | 71.0 | 63.4 | 62.7 |
| 121 | 2015/11/19 17:28:46 | 65.0 | 62.7 | 60.7 | 59.6 | 59.3 |
| 126 | 2015/11/19 17:28:51 | 58.1 | 58.5 | 59.6 | 60.1 | 62.1 |
| 131 | 2015/11/19 17:28:56 | 60.9 | 60.1 | 58.2 | 57.5 | 57.4 |
| 136 | 2015/11/19 17:29:01 | 57.9 | 59.1 | 57.7 | 57.2 | 57.9 |
| 141 | 2015/11/19 17:29:06 | 57.8 | 57.1 | 56.9 | 56.8 | 57.0 |
| 146 | 2015/11/19 17:29:11 | 56.8 | 56.9 | 57.1 | 57.7 | 60.0 |
| 151 | 2015/11/19 17:29:16 | 58.9 | 63.2 | 59.8 | 58.2 | 56.8 |
| 156 | 2015/11/19 17:29:21 | 56.1 | 58.3 | 58.6 | 63.6 | 68.3 |
| 161 | 2015/11/19 17:29:26 | 64.9 | 58.8 | 56.6 | 55.0 | 55.0 |
| 166 | 2015/11/19 17:29:31 | 56.9 | 55.2 | 55.6 | 55.2 | 55.4 |
| 171 | 2015/11/19 17:29:36 | 55.9 | 56.7 | 57.7 | 59.0 | 59.8 |
| 176 | 2015/11/19 17:29:41 | 60.2 | 61.1 | 62.0 | 61.9 | 60.8 |
| 181 | 2015/11/19 17:29:46 | 59.6 | 62.6 | 60.3 | 60.3 | 60.6 |
| 186 | 2015/11/19 17:29:51 | 59.6 | 59.0 | 58.1 | 58.1 | 58.1 |
| 191 | 2015/11/19 17:29:56 | 60.4 | 59.7 | 59.4 | 59.4 | 60.4 |
| 196 | 2015/11/19 17:30:01 | 62.9 | 64.7 | 60.5 | 59.6 | 59.4 |
| 201 | 2015/11/19 17:30:06 | 59.7 | 59.6 | 60.5 | 59.7 | 59.1 |
| 206 | 2015/11/19 17:30:11 | 59.5 | 58.6 | 58.4 | 58.6 | 58.6 |
| 211 | 2015/11/19 17:30:16 | 58.5 | 59.5 | 59.3 | 59.2 | 61.1 |
| 216 | 2015/11/19 17:30:21 | 59.9 | 59.6 | 58.9 | 59.4 | 59.3 |
| 221 | 2015/11/19 17:30:26 | 60.1 | 60.8 | 59.4 | 58.8 | 60.8 |
| 226 | 2015/11/19 17:30:31 | 58.8 | 57.8 | 57.6 | 60.8 | 59.5 |
| 231 | 2015/11/19 17:30:36 | 58.6 | 61.0 | 60.0 | 57.8 | 58.1 |
| 236 | 2015/11/19 17:30:41 | 58.6 | 56.9 | 55.4 | 54.8 | 55.6 |
| 241 | 2015/11/19 17:30:46 | 56.0 | 56.0 | 56.7 | 57.3 | 57.2 |
| 246 | 2015/11/19 17:30:51 | 57.3 | 56.2 | 56.1 | 55.6 | 54.8 |
| 251 | 2015/11/19 17:30:56 | 54.0 | 54.2 | 54.3 | 55.1 | 55.0 |
| 256 | 2015/11/19 17:31:01 | 57.0 | 58.7 | 60.5 | 63.5 | 61.0 |
| 261 | 2015/11/19 17:31:06 | 59.7 | 56.2 | 55.3 | 55.1 | 55.5 |
| 266 | 2015/11/19 17:31:11 | 55.3 | 54.7 | 54.8 | 55.5 | 55.2 |
| 271 | 2015/11/19 17:31:16 | 55.3 | 55.7 | 56.9 | 57.6 | 58.6 |
| 276 | 2015/11/19 17:31:21 | 59.4 | 60.0 | 60.0 | 61.7 | 61.2 |
| 281 | 2015/11/19 17:31:26 | 60.0 | 59.5 | 59.5 | 58.9 | 58.8 |
| 286 | 2015/11/19 17:31:31 | 59.0 | 59.8 | 62.9 | 63.5 | 65.5 |
| 291 | 2015/11/19 17:31:36 | 69.7 | 64.7 | 64.7 | 60.8 | 61.2 |
| 296 | 2015/11/19 17:31:41 | 60.7 | 60.7 | 60.8 | 60.8 | 60.6 |
| 301 | 2015/11/19 17:31:46 | 59.9 | 59.8 | 59.1 | 59.5 | 59.2 |
| 306 | 2015/11/19 17:31:51 | 59.3 | 58.3 | 58.3 | 58.5 | 58.6 |
| 311 | 2015/11/19 17:31:56 | 58.4 | 58.4 | 59.6 | 60.9 | 60.1 |
| 316 | 2015/11/19 17:32:01 | 62.7 | 61.7 | 62.1 | 60.8 | 61.5 |
| 321 | 2015/11/19 17:32:06 | 61.4 | 60.6 | 60.6 | 60.0 | 59.5 |
| 326 | 2015/11/19 17:32:11 | 58.8 | 58.9 | 58.5 | 58.4 | 58.3 |
| 331 | 2015/11/19 17:32:16 | 57.1 | 56.8 | 57.5 | 57.6 | 57.4 |
| 336 | 2015/11/19 17:32:21 | 56.6 | 56.3 | 56.2 | 56.2 | 56.5 |
| 341 | 2015/11/19 17:32:26 | 57.1 | 57.7 | 55.6 | 56.1 | 56.0 |
| 346 | 2015/11/19 17:32:31 | 57.2 | 58.5 | 57.5 | 56.4 | 56.9 |
| 351 | 2015/11/19 17:32:36 | 55.6 | 56.4 | 56.2 | 55.8 | 57.1 |
| 356 | 2015/11/19 17:32:41 | 62.7 | 60.8 | 61.5 | 65.8 | 70.0 |
| 361 | 2015/11/19 17:32:46 | 62.8 | 62.0 | 64.0 | 68.1 | 62.0 |
| 366 | 2015/11/19 17:32:51 | 61.7 | 59.2 | 59.3 | 57.9 | 57.1 |
| 371 | 2015/11/19 17:32:56 | 56.9 | 57.3 | 58.2 | 59.2 | 58.4 |
| 376 | 2015/11/19 17:33:01 | 59.1 | 58.6 | 58.7 | 60.1 | 58.4 |
| 381 | 2015/11/19 17:33:06 | 58.3 | 58.8 | 58.1 | 58.1 | 60.1 |
| 386 | 2015/11/19 17:33:11 | 58.8 | 59.6 | 61.0 | 61.5 | 62.0 |
| 391 | 2015/11/19 17:33:16 | 62.3 | 63.4 | 69.9 | 69.6 | 64.0 |
| 396 | 2015/11/19 17:33:21 | 61.1 | 59.2 | 58.5 | 58.3 | 58.3 |
| 401 | 2015/11/19 17:33:26 | 58.1 | 58.4 | 59.4 | 58.1 | 57.8 |
| 406 | 2015/11/19 17:33:31 | 57.1 | 57.0 | 57.6 | 58.1 | 58.0 |
| 411 | 2015/11/19 17:33:36 | 58.0 | 57.0 | 57.5 | 57.3 | 57.0 |
| 416 | 2015/11/19 17:33:41 | 57.2 | 58.1 | 59.1 | 59.4 | 59.6 |
| 421 | 2015/11/19 17:33:46 | 60.1 | 59.9 | 60.4 | 60.2 | 60.7 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 426 | 2015/11/19 | 17:33:51 | 61.0 | 62.7 | 61.4 | 63.1 | 64.5 |
| 431 | 2015/11/19 | 17:33:56 | 68.9 | 64.6 | 67.9 | 62.6 | 61.9 |
| 436 | 2015/11/19 | 17:34:01 | 62.6 | 62.1 | 66.0 | 66.2 | 66.3 |
| 441 | 2015/11/19 | 17:34:06 | 68.5 | 69.2 | 71.4 | 72.8 | 70.6 |
| 446 | 2015/11/19 | 17:34:11 | 71.0 | 72.2 | 70.5 | 73.6 | 77.8 |
| 451 | 2015/11/19 | 17:34:16 | 76.3 | 74.9 | 79.3 | 81.2 | 86.5 |
| 456 | 2015/11/19 | 17:34:21 | 82.2 | 79.1 | 72.8 | 77.9 | 74.0 |
| 461 | 2015/11/19 | 17:34:26 | 73.9 | 70.5 | 66.4 | 64.3 | 67.4 |
| 466 | 2015/11/19 | 17:34:31 | 65.6 | 65.1 | 62.4 | 60.5 | 60.6 |
| 471 | 2015/11/19 | 17:34:36 | 61.2 | 60.3 | 61.3 | 59.6 | 58.4 |
| 476 | 2015/11/19 | 17:34:41 | 58.7 | 58.3 | 58.9 | 59.1 | 58.5 |
| 481 | 2015/11/19 | 17:34:46 | 57.4 | 58.4 | 58.7 | 58.0 | 57.1 |
| 486 | 2015/11/19 | 17:34:51 | 55.9 | 56.3 | 57.0 | 56.9 | 57.5 |
| 491 | 2015/11/19 | 17:34:56 | 58.0 | 56.3 | 57.0 | 60.2 | 59.7 |
| 496 | 2015/11/19 | 17:35:01 | 58.5 | 58.3 | 58.3 | 58.2 | 58.4 |
| 501 | 2015/11/19 | 17:35:06 | 58.5 | 58.3 | 59.1 | 64.7 | 60.3 |
| 506 | 2015/11/19 | 17:35:11 | 60.2 | 58.7 | 60.2 | 62.0 | 61.7 |
| 511 | 2015/11/19 | 17:35:16 | 61.1 | 59.8 | 59.1 | 59.3 | 58.5 |
| 516 | 2015/11/19 | 17:35:21 | 58.8 | 58.6 | 59.5 | 61.9 | 63.9 |
| 521 | 2015/11/19 | 17:35:26 | 68.5 | 63.0 | 62.8 | 61.1 | 60.8 |
| 526 | 2015/11/19 | 17:35:31 | 62.7 | | | | |

# Appendix D

*Traffic Impact Study*

# Traffic Impact Study for 9000 Wilshire Boulevard Office Building, Beverly Hills

## December 11, 2015

REGISTERED PROFESSIONAL ENGINEER
GIUSEPPE S. CANZONIERI
No. C79006
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

Prepared For:

**9000 Wilshire LLC**
1805 Colorado Avenue
Santa Monica, CA 90404
(310) 447-3000

Prepared by:

KOA CORPORATION
PLANNING & ENGINEERING

1100 Corporate Center Drive, Suite 201
Monterey Park, California 91754
(323) 260-4703

JB51113

KOA CORPORATION
PLANNING & ENGINEERING

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# 1. Introduction

KOA Corporation was retained by 9000 Wilshire LLC to study any potential traffic impacts of the proposed Project at 9000 Wilshire Boulevard in the City of Beverly Hills.

KOA last produced a study for a proposed project at this site dated January 9, 2014, under a contract with Walker Parking Consultants. That study was produced for internal review by Walker and the Client, and was not submitted to the City of Beverly Hills. A scoping document had been submitted to the City for that project, however.

The gross project floor area would total 31,702 square feet in a three-story structure. The proposed subterranean parking structure would provide up to 91 vehicle spaces and 11 bicycle racks. The parking structure would be accessed from a driveway on Almont Drive.

The following sections investigate if potential impacts would occur due to Project-generated vehicle trips during weekday peak hours at nearby signalized intersections. Prior to the start of the study, KOA coordinated with staff from the City of Beverly Hills to obtain consensus on the traffic scope, methodology and assumptions. A new scoping document was prepared and submitted to the City of Beverly Hills Engineer for review and comment.

## *1.1. Project Location*

The proposed Project site is located at 9000 Wilshire Boulevard in Beverly Hills, California. The property is on the southwest corner of the Wilshire Boulevard/Almont Drive intersection. Existing facilities on the property include commercial retail uses.

Figure 1 illustrates the study area and the site location in relation to the surrounding street system.

## *1.2. Project Study Area*

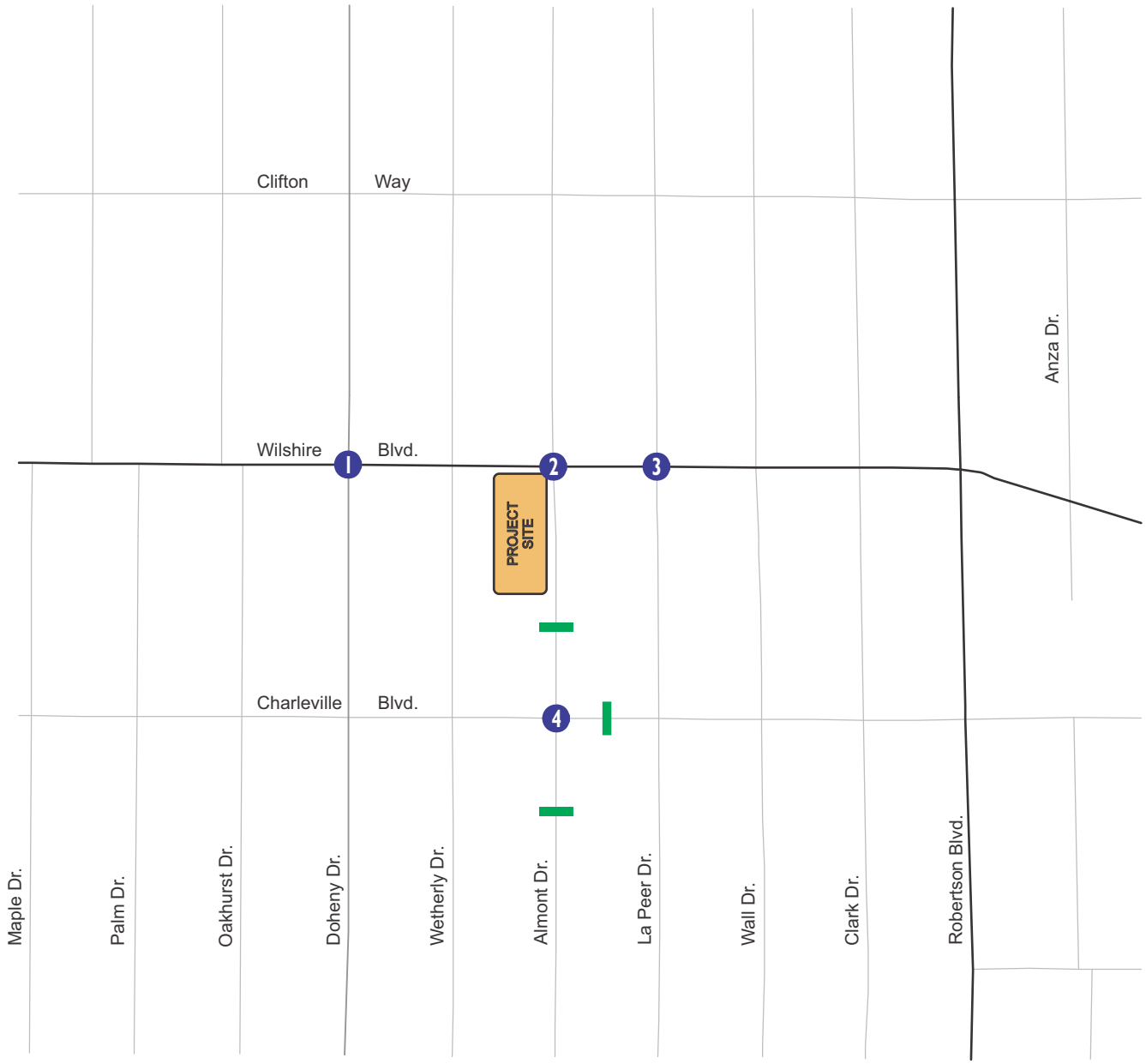
For the Project traffic impact analysis, four study intersections were defined for the overall study area:

1. Doheny Drive/Wilshire Boulevard
2. Almont Drive/Wilshire Boulevard
3. La Peer Drive/ Wilshire Boulevard
4. Almont Drive/Charleville Boulevard

Figure 2 illustrates the proposed Project site plan. Figure 3 illustrates the locations of the four study intersections and the three locations where 24-hour counts were collected on a Saturday and a Tuesday:

- Almont Drive, south of Wilshire Boulevard
- Almont Drive, between Charleville Boulevard and Gregory Way
- Charleville Boulevard, between Almont Drive and alley between Almont Drive and La Peer Drive

A residential street segment analysis was conducted at the three street segments identified above.




**LEGEND**

Project Location

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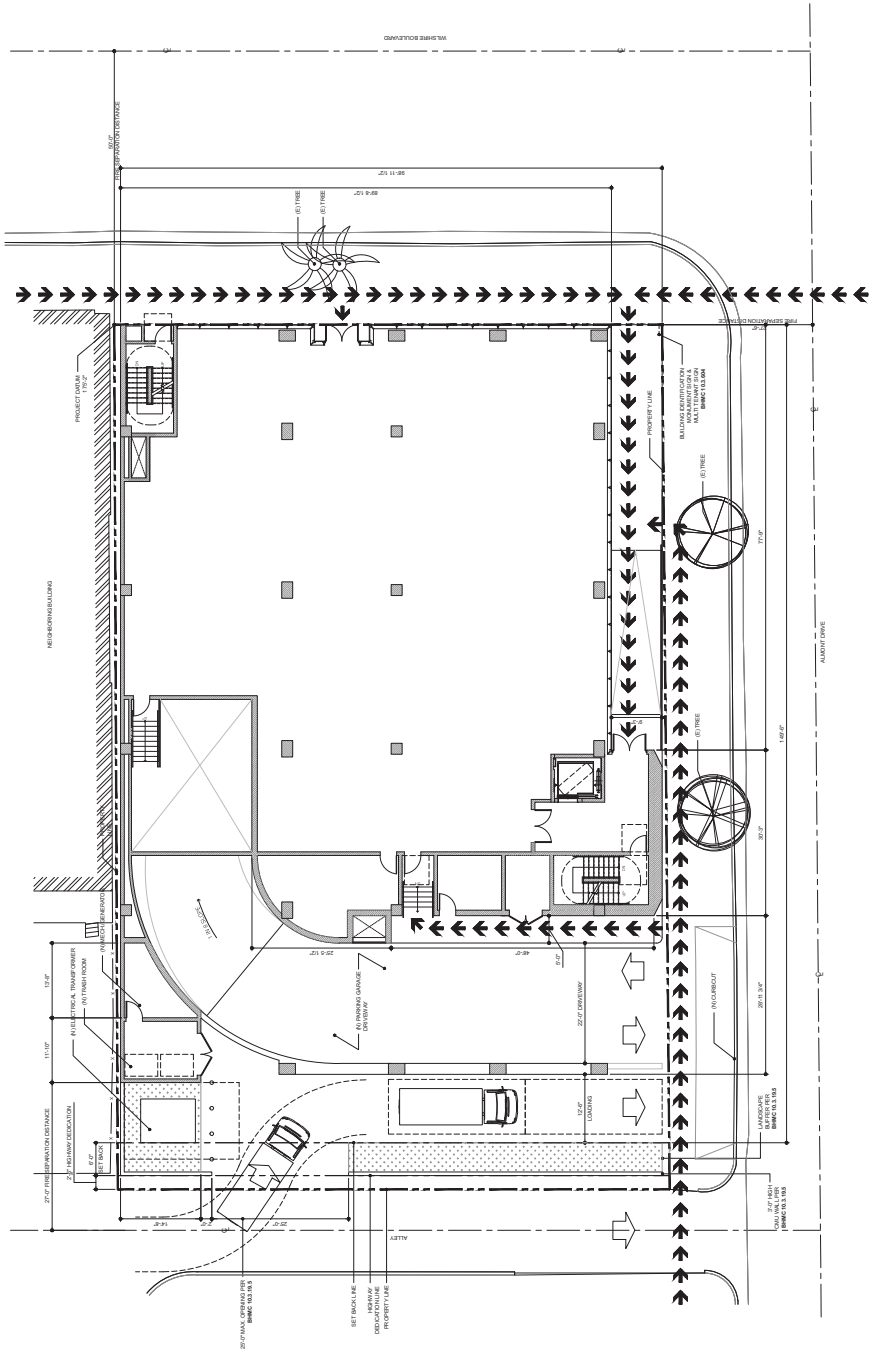
Figure 1

Project Location




# ZONING CODE INFORMATION

**GENERAL NOTE:**
**PROJECT INTENDS TO APPLY FOR AS OF RIGHT ENTITLEMENT PERMITTING WITH ADDITIONAL PERMITTED ROOFTOP USAGE.**

| CATEGORY | ITEM | REFERENCE |
|---|---|---|
| FLOOR AREA | 8,006 SF (@ GROUND FLOOR)<br>11,348 SF (@ SECOND FLOOR)<br>+ 12,348 SF (@ THIRD FLOOR)<br>**31,702 SF** | DOES NOT INCLUDE PERIMETER WALLS, ELEV. SHAFTS, STAIR SHAFTS, MECH. ROOMS. |
| | REQUIRED: 2.0 FLOOR AREA RATIO<br>PROVIDED: **2.0** FLOOR AREA RATIO | BHMC MAP LU1 |
| | PROPOSED FLOOR AREA / SITE AREA = 31,702 SF / 15,876 SF = **2.0** | |
| AREA NOT INCLUDED IN FAR | BELOW GRADE PARKING = 47,447 SF<br>ROOFTOP USE = 2,049 SF | |
| MAX. BUILDING HEIGHT | 45 FT. TO TOP OF ROOF,<br>15 FT. MAX. PENTHOUSE/ LUNCH-GYM USE | BHMC MAP LU1<br>BHMC 10-3-3107 |
| MAX. NO. OF STORIES | 3 STORIES | |
| ACTUAL BUILDING HEIGHT | 45 FT TO TOP OF ROOF (ENTITLED BUILDING)<br>15 FT TO TOP OF PENTHOUSE STRUCTURE | |
| ACTUAL NO. OF STORIES | 3 STORIES W/LUNCHROOM | BHMC 10-3-3107 |
| PARKING REQUIREMENTS: | REQUIRED: 91 PARKING SPACES (1 / 350 S.F.)<br>PROVIDED: 91 PARKING SPACES<br>(INCLUDES 2 ADA & 2 ADA VAN ACCESSIBLE) | BHMC 10-3-2730 |
| BICYCLE PARKING | PROVIDED: 11 BICYCLE RACKS | |
| SETBACKS | FRONT 0 FT<br>REAR 6 FT<br>SIDE 0 FT<br>STREET SIDE 0 FT | BHMC 10-3-1952A |
| HIGHWAY DEDICATION | 2.5 FT (AT REAR LOT LINE) | |

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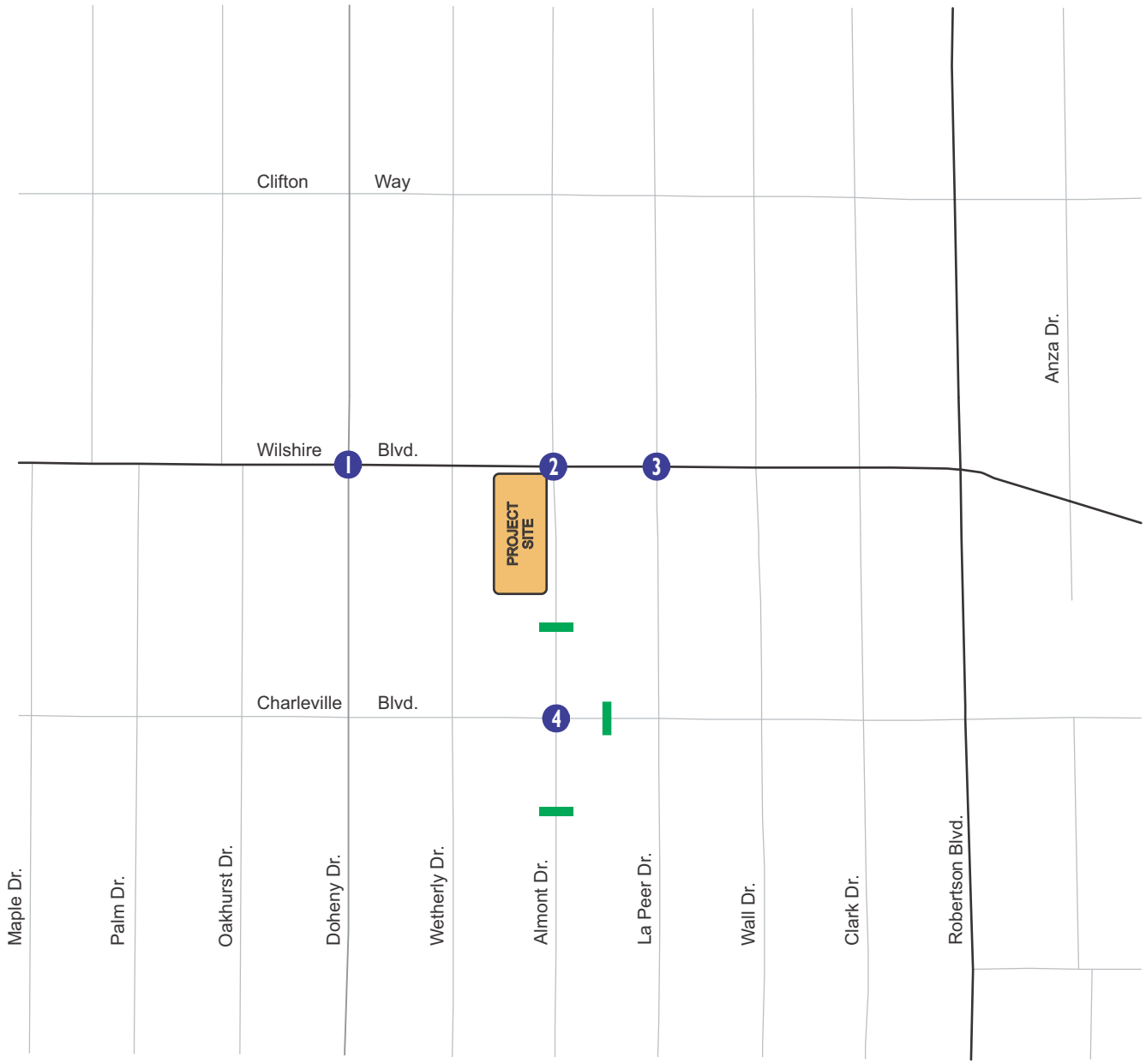
Figure 2

Project Site Plan




**LEGEND**

- Project Location
- # Study Intersections
- Roadway Segments

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Figure 3

Study Intersections and Roadway Segments

## *1.3. Intersection Analysis Methodology*

The proposed Project site is located within the City of Beverly Hills. KOA coordinated with the City at the start of this study to achieve consensus on assumptions such as study intersections, ambient growth and area/cumulative projects.

A scoping document was prepared and submitted to the City of Beverly Hills for review and comment. A copy of the scoping document is provided in Appendix A.

The Project study area extents, as defined through consultation with City staff, included weekday peak-hour (7:30-9:30 a.m. and 4:30-6:30 p.m.) and weekend peak-hour (Saturday, 1:00-3:00 p.m.) impact analysis at four study intersections. The traffic analysis included the following scenarios:

- Existing (Year 2015) Conditions
- Future (Year 2018) Pre-Project Conditions
- Existing (Year 2015) Plus Project Conditions
- Future (Year 2018) Post-Project Conditions

An additional existing plus-Project scenario was included in the analysis, to comply with rulings on existing conditions baseline analysis from the *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* and *Neighbors for Smart Rail v. Exposition Metro Rail Construction Authority* California Environmental Quality Act (CEQA) court case.

### 1.3.1 Existing (Year 2015) Conditions

Fieldwork within the Project study area was undertaken to identify the conditions of major roadways, to identify traffic control, approach lane configuration, and other characteristics of each study intersection. KOA compiled new manual intersection turn movement counts that were conducted at the study intersections on Tuesday, June 30, 2015 and Saturday, June 27, 2015.

Existing level of service values at the study intersections are discussed within Section 2 of this report.

### 1.3.2 Future (Year 2018) Pre-Project Conditions

In order to acknowledge regional traffic growth that would affect operations at the study intersections during the anticipated year of full project occupation in the year 2018, an ambient/background traffic growth rate was applied. Per the scoping document, a compounded annual rate of 1% or a factor of 1.0303 was applied to create year-2018 base traffic volumes from the 2015 counts.

In addition to future ambient growth, traffic from area projects (approved and pending developments) was also included as part of the year-2018 analysis. KOA obtained information from planning staff at the City of Beverly Hills, City of West Hollywood, and City of Los Angeles, pertaining to area projects that would add measurable volumes to the study area intersections and are located within the City. Peak-hour trips that would be generated from each of the area projects were computed based on City calculations provided by the development tracking database output sheet.

Operations at the study intersections for the future pre-project scenario are discussed in Section 3 of this report.

### 1.3.3 Project Trip Generation and Distribution

Project trip generation calculations included rates for general office uses. Rates for this use in *Trip Generation (9th edition)*, published by the Institute of Transportation Engineers (ITE), were compared to surveyed office use rates at an existing use on Wilshire Boulevard. The ITE rates were used to provide a more conservative analysis. The Project trip generation and existing site use credit calculations were based on the ITE-defined rates.

The analyzed trip distribution pattern assumed that trips would use study intersections on Wilshire Boulevard as well as neighborhood roadways to access the Project site. Some project trips may use the alley located to the south of Wilshire Boulevard, between Almont Drive and La Peer Drive. The intersections of the alley with north-south cross-streets in the vicinity of the Project site are signed with one-way directional signs, regulating an eastbound-only flow for vehicles within the alley segments. Outbound traffic from the Project may use this alleyway to travel eastbound from the site, which is discussed further within Section 6 of this report.

The methodology utilized for Project trip generation and distribution calculations is discussed in Section 4 of this report.

### 1.3.4 Level of Service Methodology

For analysis of Level of Service (LOS) at signalized intersections, the City of Beverly Hills has designated the Intersection Capacity Utilization (ICU) methodology as the desired tool. The concept of roadway level of service under the ICU methodology is calculated as the volume of vehicles that pass through the facility divided by the capacity of that facility. A 10% adjustment to the clearance and loss time factor based on the critical phases of the signalized control were included in the traffic analysis. A facility is "at capacity" (ICU value of 1.00 or greater) when extreme congestion occurs. This value is a function of hourly volumes, signal phasing, and approach lane configuration on each leg of the intersection.

Level of service (LOS) values range from LOS A to LOS F. LOS A indicates excellent operating conditions with little delay to motorists, whereas LOS F represents congested conditions with excessive vehicle delay. The upper range of LOS E is typically defined as the operating "capacity" of a roadway.

Table 1 provides descriptions of general roadway operations for each LOS value, as defined within the *Highway Capacity Manual* (published by the Transportation Research Board).

**Table 1 – Level-of-Service Definitions**

| Level of Service | Flow Conditions | Volume to Capacity Ratio |
|---|---|---|
| **A** | LOS A describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal. | 0.00-0.600 |
| **B** | LOS B represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension. | 0.601-0.700 |
| **C** | LOS C represents stable operations; however, ability to maneuver and change lanes in mid-block locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average speeds of about 50 percent of the average free-flow speed for the arterial classification. Motorists will experience appreciable tension while driving. | 0.701-0.800 |
| **D** | LOS D borders on a range in which small increases in flow may cause a substantial increase in delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors. Average travel speeds are about 40 percent of free-flow speed. | 0.801-0.900 |
| **E** | LOS E is characterized by significant delays and average travel speeds of one-third the free-flow speed of less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing. | 0.901-1.00 |
| **F** | LOS F characterizes arterial flow at extremely low speeds below one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays and extensive queuing. Adverse progression is frequently a contributor to this condition. | Over 1.00 |

### 1.3.5 Intersection Significant Traffic Impacts

Traffic impacts are identified if a proposed development will result in a significant change in traffic conditions at a study intersection. A significant impact is typically identified if project-related traffic will cause service levels to deteriorate beyond a threshold limit specified by the overseeing agency. Impacts can also be significant if an intersection is already operating below acceptable level of service values and project traffic will cause a further decline below a threshold.

As defined by City of Beverly Hills traffic study review policies, significant impacts of a proposed project at an intersection must be mitigated to a level of insignificance. In cases where capacity increases were deemed to generally be feasible, KOA analyzed mitigation measures that would restore operations commensurate with the removal of the incremental impacts of the Project. The City significant impact standards are as follows:

Signalized Intersections

*Calculation Methodology: Intersection Capacity Utilization (ICU), using criterion similar to Congestion Management Program (CMP) using a selected lane capacity of 1,600 vehicles per hour.*

An impact will be considered significant if traffic generated by a project causes an increase of:

- 0.020 or more on v/c at the final LOS "F"
- 0.020 or more on v/c at the final LOS "E"
- 0.030 or more on v/c at the final LOS "D" or better

Unsignalized (all-way stop) Intersections

*Calculation Methodology: Based on the Highway Capacity Manual.*

An impact will be considered significant if the following increase of average total delay per vehicle occur:

- 3.0 seconds or more average total delay at the final LOS "F"
- 3.0 seconds or more average total delay at the final LOS "E"
- 4.0 seconds or more average total delay at the final LOS "D"

Unsignalized (2-way stop) Intersections

*Calculation Methodology: Based on the Highway Capacity Manual.*

Significant Impact: A Change in level of service (comparison of cumulative plus with cumulative plus without project, to project) on any direction of travel:

- LOS D or better to LOS E or worse
- LOS E to LOS F
- LOS F to LOS F (resulting in increase of 10 or more average total delay (sec/veh) on any direction.

### *1.4. Residential Street Segment Analysis Impact Assessment*

The City of Beverly Hills uses the following criteria to determine if a project has residential street impacts:

1. ADT less than 2,000 vehicles per day (vpd): project increases ADT by 16%, or increases peak hour by 16% or both.

2. ADT greater than 2,001 but less than 4,000 vpd: project increases ADT by 12% or more, or increases peak hour by 12% or more or both.

3. ADT greater than 4,001 but less than 6/750 vpd: project increases ADT by 8% or more, or increases peak hour by 8% or more or both.

4. ADT greater than 6,750 vpd: project increases ADT by 6.25% or more, or increases peak hour by 6.25% or more or both.

# 2. Existing (Year 2015) Conditions

This section describes the existing conditions within the study area, in terms of roadway facilities and operational characteristics.

## *2.1. Existing Roadway System*

Fieldwork within the Project study area was undertaken to identify traffic control and approach lane configuration at each study intersection, and to identify the locations of on-street parking availability and the locations of transit stops. The discussion presented here is limited to specific roadways that traverse the study intersections and serve the Project site.

**Wilshire Boulevard** is a six-lane east-west arterial roadway that traverses the City. The roadway provides six travel lanes, continuous turn lanes at the intersections and restricted on-street parking at most segments. Land uses along Wilshire Boulevard are primarily commercial including retail.

**Doheny Drive** is a two-lane north-south roadway west of the Project site. The primary land uses along Doheny Drive near the project site are residential uses. It provides two travel lanes, continuous turn-lane pockets at the intersections and on-street parking at most segments. During the peak periods, it provides four travel lanes along Doheny, between Wilshire Boulevard and Charleville Boulevard.

**La Peer Drive** is a two-lane roadway within the immediate vicinity of the Project site. The roadway serves primarily residential uses. It provides two travel lanes, left-turn pockets at major intersections and limited on-street parking along some segments.

**Wetherly Drive** is just west of the Project site. The roadway serves primarily residential uses. It is a north-south roadway, providing two travel lanes with limited parking allowed on some segments.

**Almont Drive** defines the eastern edge of the proposed Project site. The roadway serves primarily residential uses. It is a north-south roadway, providing two travel lanes with limited parking allowed on some segments.

Figure 4 illustrates the existing approach lane and signalized control configurations of the study intersections.

## *2.2. Existing Transit Services*

The Project study area is primarily served by bus transit lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro). Table 3 summarizes the existing transit lines within the study area.

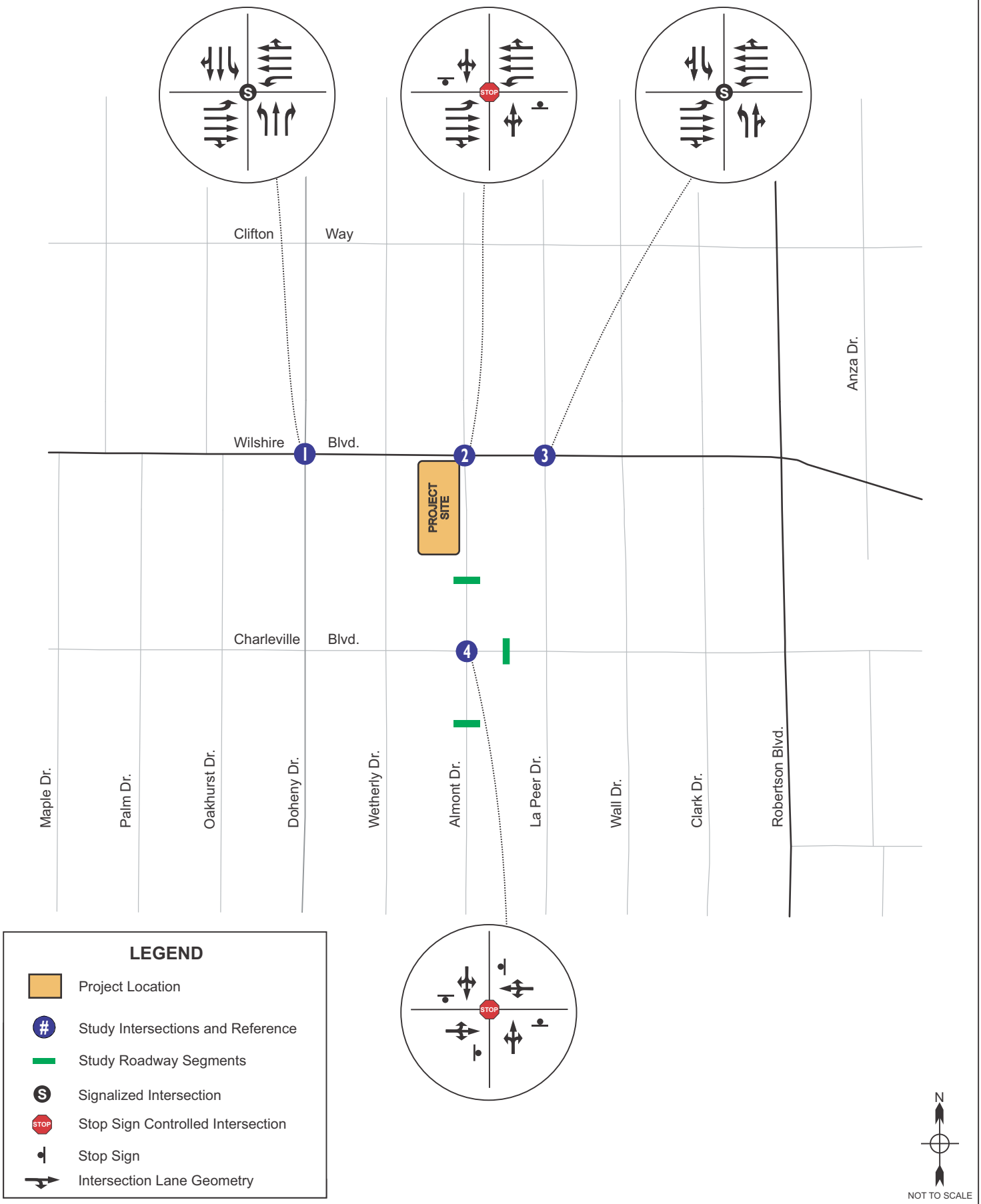


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Figure 4

Existing Lane Configuration

**Table 2 – Existing Transit Services**

| Agency | Line | From | To | Via | Peak Frequency |
|---|---|---|---|---|---|
| **East-West on Wilshire Boulevard** | | | | | |
| Metro Local | 20 | Main & Pico (Santa Monica) | 7th & Main (Los Angeles) | Wilshire Boulveard | 6 - 15 min. |
| Metro Rapid | 720 | 4th & Colorado (Santa Monica) | Commerce Center (Commerce) | Wilshire Boulevard, 6th Street, Whittier Boulevard | 2 - 10 min. |
| Antelope Valley Transit | 786 | Lancaster/ Palmdale | Century City/West Los Angeles | Santa Monica Boulevard, Wilshire Boulevard, La Brea Avenue | 35 min. |
| **North - South on Robertson Boulevard East of the Project Site** | | | | | |
| Metro | 220 | Robertson & Venice (Culver City) | Beverly Center ( Los Angeles) | Robertson Boulevard | 60 min. |

Figure 5 illustrates the routes of these transit lines within the study area.

**LEGEND**

- Project Location
- # Study Intersections and Reference
- Study Roadway Segments
- Metro 20 / 720(Rapid)
- Metro 220
- Antelope Valley Transit 786

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Figure 5

Existing Transit Lines

### *2.3. Existing Intersection Levels of Service*

Based on 2015 peak-hour traffic counts, an Intersection Capacity Utilization (ICU) value that equates to a volume-to-capacity ratio and corresponding level of service value were determined for each of the study area intersections.

Table 3 provides the level of service results at each study intersection under existing (Year-2015) conditions. Poor LOS values of E or F are indicated by bold text.

**Table 3 – Intersection Level of Service – Existing (Year 2015) Conditions**

| Study Intersections | | Weekday AM Peak Hour | | Weekday PM Peak Hour | | Saturday Mid-Day Peak Hour | |
|---|---|---|---|---|---|---|---|
| | | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS |
| 1 | Doheny Dr / Wilshire Blvd | 0.838 | D | 0.861 | D | 0.660 | B |
| 2 | Almont Dr / Wilshire Blvd * | *** | **F** | *** | **F** | 38.3 | **E** |
| 3 | La Peer Dr / Wilshire Blvd | 0.688 | B | 0.679 | B | 0.421 | A |
| 4 | Almont Dr / Charleville Blvd ** | 8.3 | A | 9.0 | A | 7.4 | A |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

As indicated by the data within Table 3, the signalized Doheny Drive/Wilshire Boulevard intersection operates at LOS D during the weekday peak hours and at LOS B during the Saturday midday period. The signalized La Peer Drive/Wilshire Boulevard and unsignalized Almont Drive/Charleville Boulevard intersections operate at good levels of service for all time periods analyzed.

The unsignalized Almont Drive/Wilshire Boulevard intersection, which is adjacent to the project site, is forecast to operate at poor levels of service for Almont Drive traffic during all time periods analyzed. This result is due to the relatively high traffic volumes on Wilshire Boulevard, which makes it difficult to make northbound and southbound left-turns from Almont Drive onto Wilshire Boulevard and very difficult to cross north to south or south to north on Almont Drive across Wilshire Boulevard. Average delay across all intersection approaches is very low, however, since the Almont Drive stop-sign-controlled volumes are very low compared to the free-flowing volumes on Wilshire Boulevard.

At high levels of delay, the output in seconds of the HCM methodology grows exponentially, and does not define real conditions in a valuable manner.

The existing weekday peak-hour intersection volumes are illustrated on Figure 6 (a.m. peak hour) and Figure 7 (p.m. peak). The existing Saturday midday peak-hour intersection volumes are illustrated on Figure 8. Level-of-service worksheets for the existing conditions scenario are provided in Appendix C of this report.

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Figure 6

Existing (Year 2015) Weekday AM Peak Hour Turn Volumes

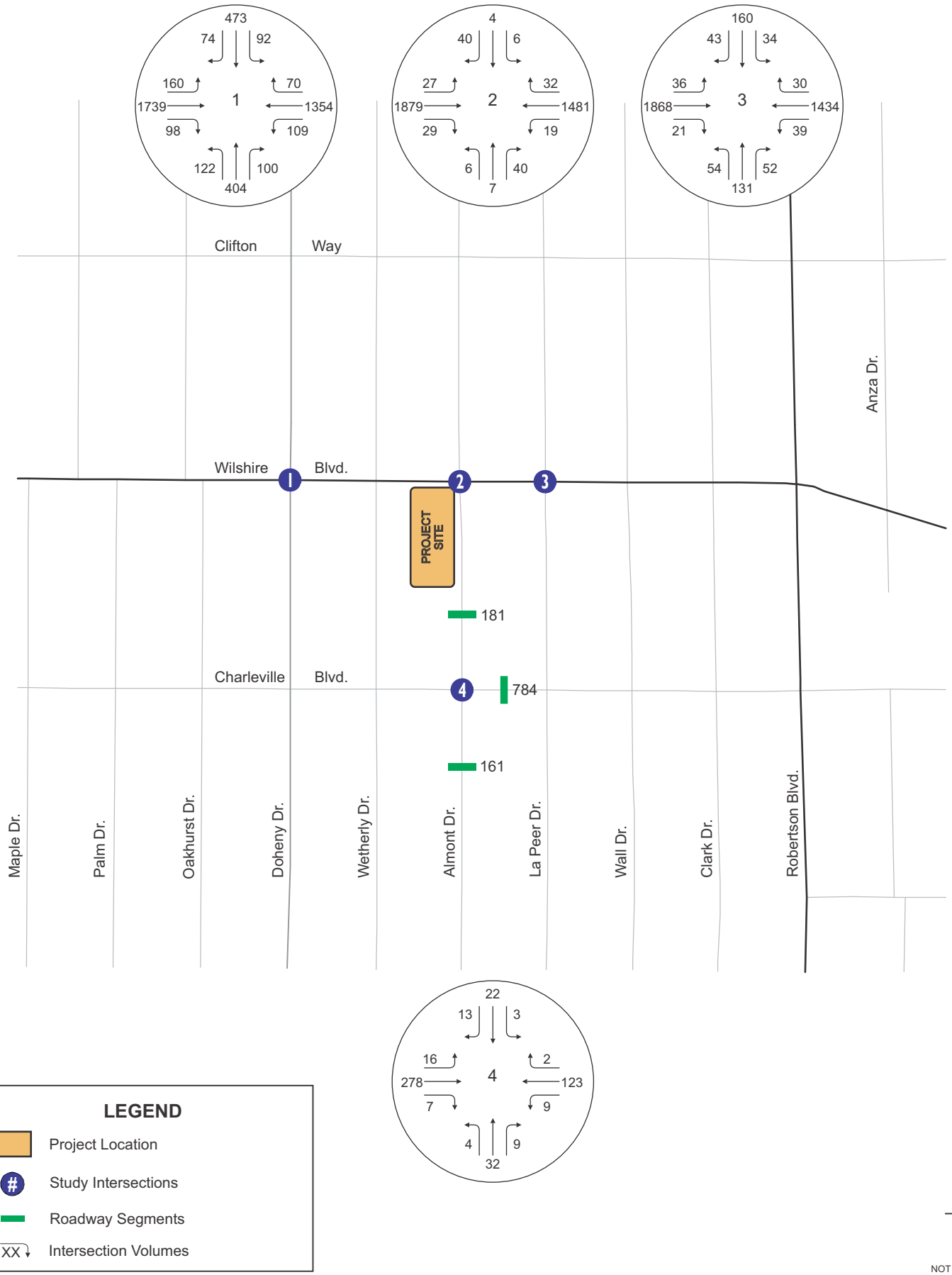


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Figure 7

Existing (Year 2015) Weekday PM Peak Hour Turn Volumes

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Figure 8

Existing (Year 2015) Saturday Midday Peak Hour Turn Volumes

# 3. Future (Year 2018) Pre-Project Conditions

This section provides an analysis of future pre-Project traffic conditions in the study area with ambient growth and area project trips, but without traffic from the Project land uses. The year 2018 was selected for analysis based on the anticipated full occupation date of the proposed Project. The applied ambient growth factor and trips generated by area projects are discussed further below.

## *3.1. Ambient Growth*

The future period forecast included an ambient growth rate to account for both regional population and employment growth outside of the study area. An annual growth rate of 1% was used for this purpose. Thus, a growth factor of 1.0303 was applied to existing traffic counts to define two years of traffic growth between year-2015 and year-2018 conditions.

## *3.2. Area/Cumulative Projects*

Area/cumulative projects were researched within a 1.5-mile radius from the project site. KOA contacted planning staff at the City of Beverly Hills, City of West Hollywood, and City of Los Angeles to obtain a list of planned/pending area projects. These projects were considered to potentially contribute measurable traffic volumes to the study area during the future analysis period.

Trip generation calculations were based on the project land use intensities and trip generation totals within the City cumulative projects tracking list.

Table 4 summarizes the trip generation of the included area projects. This traffic was added to the study intersections using a distribution pattern based on the hierarchy of the local street system. The locations of the area projects are illustrated on Figure 9.

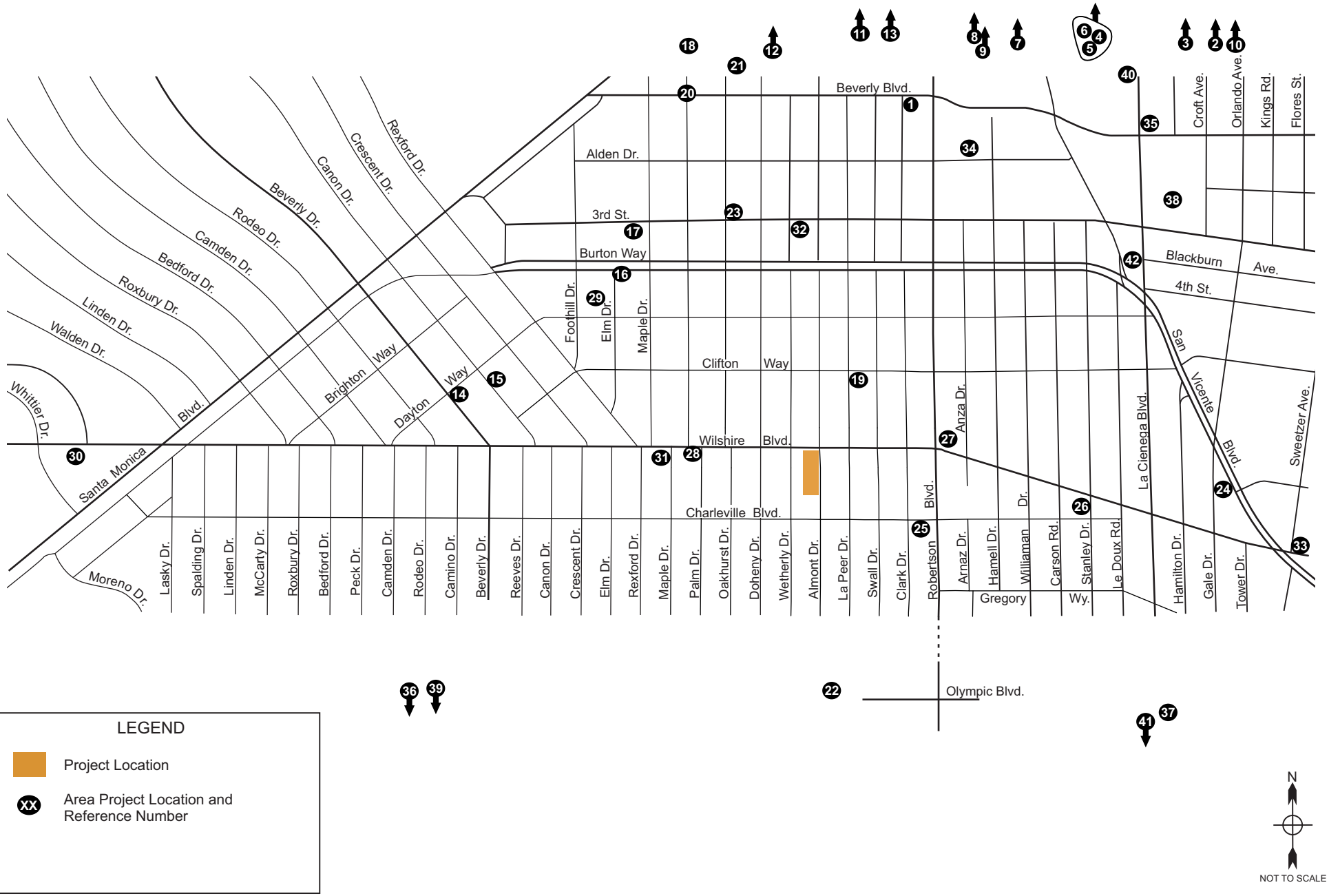


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Figure 9

Area Project Locations

## Table 4 – Trip Generation of Included Area Projects

| Map ID | Location | Land Use | Intensity | Units | Daily Total | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | | Sat. Daily | Saturday Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Total | In | Out | Total | In | Out | | Total | In | Out |
| **City of Beverly Hills** | | | | | | | | | | | | | | | |
| 1 | 257 N. Canon Drive | Commercial | - | - | 1,042 | 76 | 62 | 14 | 112 | 35 | 77 | 1,042 | 84 | 44 | 40 |
| 2 | 246 N. Canon Drive | Restaurant | 7.100 | k.s.f. | 630 | 36 | 24 | 12 | 63 | 39 | 24 | 630 | 75 | 44 | 31 |
| 3 | 9262 Burton Way | Condominiums | 23 | d.u. | 134 | 10 | 8 | 2 | 12 | 8 | 4 | 134 | 11 | 6 | 5 |
| 4 | 325 N. Maple Drive | Office | 50.000 | k.s.f. | 550 | 77 | 68 | 9 | 75 | 13 | 62 | 550 | 20 | 10 | 10 |
| 5 | 450-60 N. Palm Drive | Condominiums | 35 | d.u. | 205 | 15 | 3 | 12 | 18 | 12 | 6 | 205 | 16 | 9 | 7 |
| 6 | 154-168 N. LaPeer Drive | Condominiums | 16 | d.u. | 93 | 7 | 5 | 2 | 8 | 6 | 2 | 93 | 8 | 5 | 3 |
| 7 | 425 N. Palm Drive | Condominiums | 20 | d.u. | 110 | 9 | 2 | 7 | 11 | 7 | 4 | 110 | 8 | 5 | 3 |
| 8 | 432 N. Oakhurst Drive | Condominiums | 34 | d.u. | 205 | 15 | 3 | 12 | 18 | 12 | 6 | 205 | 16 | 9 | 7 |
| 9 | 8955 W. Olympic Boulevard | Auto Sales | 19.800 | k.s.f. | 660 | 44 | 26 | 18 | 54 | 24 | 30 | 660 | 60 | 30 | 30 |
| 10 | 332 N. Oakhurst Drive | Condominiums | 31.000 | d.u. | 186 | 14 | 3 | 11 | 15 | 10 | 5 | 186 | 14 | 8 | 6 |
| 11 | 121 San Vicente Boulevard | Medical Office | 35.000 | k.s.f. | 1,265 | 88 | 68 | 20 | 130 | 35 | 95 | 1,265 | 127 | 72 | 55 |
| 12 | 207 S. Robertson Boulevard | Office | 1.700 | k.s.f. | 19 | 2 | 2 | 0 | 3 | 0 | 3 | 19 | 0 | 0 | 0 |
| 13 | 8600 Wilshire Boulevard | Mixed-Use | - | - | 960 | 31 | 14 | 17 | 86 | 43 | 43 | 960 | 118 | 62 | 56 |
| 14 | 8767 Wilshire Boulevard | Mixed-Use | - | - | 2,492 | 236 | 151 | 85 | 274 | 113 | 161 | 2,492 | 254 | 135 | 119 |
| 15 | 9200 Wilshire Boulevard | Mixed-Use | - | - | 2,172 | 63 | 28 | 35 | 192 | 106 | 86 | 2,172 | 259 | 139 | 120 |
| 16 | 305 - 239 S. Elm | Condominiums | 30.000 | d.u. | 174 | 13 | 2 | 11 | 16 | 10 | 6 | 174 | 14 | 8 | 6 |
| 17 | 9876 Wilshire Boulevard | Mixed-Use | | | 2,440 | 104 | 42 | 62 | 208 | 120 | 88 | 2,440 | 256 | 138 | 118 |
| 18 | 9230 Wilshire Boulevard | Auto Sales | 150.300 | k.s.f. | 3,000 | 108 | 64 | 44 | 117 | 41 | 76 | 3,000 | 82 | 41 | 41 |
| City of Beverly Hills Total | | | | | 16,337 | 948 | 575 | 373 | 1,412 | 634 | 778 | 16,337 | 1,422 | 765 | 657 |
| **City of West Hollywood** | | | | | | | | | | | | | | | |
| 19 | 8816 Beverly Boulevard | Mixed-Use | - | - | 959 | 65 | 47 | 18 | 85 | 31 | 54 | - | - | - | - |
| 20 | 612 Croft Avenue | Condominiums | 11 | d.u. | 64 | 5 | 1 | 4 | 6 | 4 | 2 | 62 | 5 | 3 | 2 |
| 21 | 8451 Melrose Avenue | Retail | 3.929 | k.s.f. | 174 | 27 | 13 | 14 | 11 | 5 | 6 | 196 | 19 | 10 | 9 |
| 22 | 8551 Melrose Avenue | Retail | 6.500 | k.s.f. | 288 | 9 | 5 | 4 | 18 | 8 | 10 | 325 | 31 | 16 | 15 |
| 23 | 8564 Melrose Avenue | Retail/Commercial | 28.474 | k.s.f. | 765 | 23 | 14 | 9 | 49 | 22 | 27 | 1,423 | 137 | 71 | 66 |
| 24 | 8583 Melrose Avenue | Retail/Commercial | 9.545 | k.s.f. | 561 | 28 | 16 | 12 | 44 | 22 | 22 | 477 | 46 | 24 | 22 |
| 25 | 8650 Melrose Avenue | Mixed-Use | - | - | 693 | 23 | 12 | 11 | 43 | 20 | 23 | 773 | 74 | 41 | 33 |
| 26 | 8711 Melrose Avenue | Commercial | 21.565 | k.s.f. | 567 | 17 | 10 | 7 | 17 | 8 | 9 | 1,078 | 104 | 54 | 50 |
| 27 | 8715 Melrose Avenue | Mixed-Use | - | - | 693 | 23 | 12 | 11 | 43 | 20 | 23 | 1,366 | 146 | 85 | 61 |
| 28 | 507 Orlando Avenue | Apartments | 9 | d.u. | 60 | 5 | 1 | 4 | 6 | 4 | 2 | 58 | 5 | 2 | 2 |
| 29 | 9001 Santa Monica Boulevard | Mixed-Use | - | - | 829 | 8 | 16 | -8 | 47 | 31 | 16 | 829 | 58 | 49 | 9 |
| 30 | 9040-9098 Santa Monica Boulevard | Mixed-Use | - | - | 3,578 | 260 | 193 | 67 | 303 | 123 | 180 | 3,578 | 431 | 218 | 213 |
| 31 | 645-681 N. Robertson Boulevard | Mixed-Use | - | - | 4,219 | 139 | 87 | 52 | 221 | 134 | 87 | - | - | - | - |
| City of West Hollywood Total | | | | | 13,450 | 632 | 427 | 205 | 893 | 432 | 461 | 10,164 | 1,056 | 574 | 483 |
| **City of Los Angeles** | | | | | | | | | | | | | | | |
| 32 | 300 S. Wetherly Drive | Condominiums | 140 | d.u. | 270 | 20 | 3 | 17 | 22 | 16 | 6 | 794 | 66 | 36 | 30 |
| 33 | 6535 Wilshire Boulevard | Mixed-Use | - | - | 786 | 78 | 61 | 17 | 86 | 20 | 66 | 134 | 11 | 5 | 5 |
| 34 | 8723 W Alden Drive | Medical Building | - | - | 1,181 | 113 | 79 | 34 | 130 | 47 | 83 | 140 | 25 | 13 | 11 |
| 35 | 316 N. La Cienega Boulevard | Mixed-Use | - | - | 602 | 94 | 41 | 53 | 53 | 31 | 22 | 300 | 29 | 15 | 14 |
| 36 | 9786 W. Pico Boulevard | Cultural Space | - | - | 1,713 | 242 | 121 | 121 | 249 | 125 | 124 | - | - | - | - |
| 37 | 1022 S. La Cienega Boulevard | Assisted Living | - | - | 242 | 8 | 14 | -6 | 22 | 6 | 16 | - | - | - | - |
| 38 | 100 N. La Cienega Boulevard | Commercial | - | - | 1,663 | 4 | -11 | 15 | 166 | 88 | 78 | 17,240 | 1,663 | 865 | 798 |
| 39 | 9760 W. Pico Boulevard | High School | - | - | 257 | 62 | 31 | 31 | 21 | 10 | 11 | - | - | - | - |
| 40 | 375 N. La Cienega Boulevard | Mixed-Use | - | - | 168 | 55 | 8 | 47 | 45 | 34 | 11 | 1,194 | 103 | 52 | 51 |
| 41 | 1055 La Cienega Boulevard | Day School | - | - | 423 | 133 | 75 | 58 | 100 | 46 | 54 | - | - | - | - |
| 42 | 333 S. La Cienega Boulevard | Mixed-Use | - | - | 2,020 | 106 | 35 | 71 | 191 | 114 | 77 | 6,166 | 410 | 212 | 198 |
| City of Los Angeles Total | | | | | 9,325 | 915 | 457 | 458 | 1,085 | 537 | 548 | 25,968 | 2,306 | 1,198 | 1,108 |
| **Total** | | | | | **39,112** | **2,495** | **1,459** | **1,036** | **3,390** | **1,603** | **1,787** | **52,469** | **4,784** | **2,537** | **2,248** |

*d.u. = dwelling units, k.s.f. = 1,000 square feet of floor area*

*Project List and Trip Generation Rates from City of Beverly Hills Planning Department, City of West Hollywood Planning Department, and Los Angeles LADOT Case Logging and Tracking System (CLATS), 2015.*
*ITE Trip Generation (9th Edition) was used for projects with no estimates provided.*

Table 4 indicates that the included area projects are expected to generate approximately 39,112 weekday daily weekday trips, of which 2,495 trips (1,459 inbound and 1,036 outbound) would occur during the AM peak hour and 3,390 trips (1,603 inbound and 1,787 outbound) would occur during the PM peak hour. The area projects are expected to generate 52,469 daily trips on a daily basis during the Saturday/weekend analysis period.

The assignment for area project trips is illustrated on Figure 10 (weekday AM peak), Figure 11 (weekday PM peak) and Figure 12 (Saturday midday peak).

### *3.3. Peak-Hour Intersection Level of Service*

The peak-hour study intersection turn movement volumes for this scenario are provided on Figure 13 (weekday AM peak), Figure 14 (weekday PM peak) and Figure 15 (Saturday mid-day peak).

To analyze future conditions without the proposed Project, intersection turn volumes with ambient growth and trips generated by area projects were processed with the Intersection Capacity Utilization (ICU) method. Table 5 summarizes the a.m. and p.m. peak hour results of this analysis. Bold text within the table indicates the study intersections that would operate at LOS E or F under this scenario.

**Table 5 – Intersection Level of Service - Future Year 2018 Pre-Project Conditions**

| | Study Intersections | Weekday AM Peak Hour | | Weekday PM Peak Hour | | Saturday Mid-Day Peak Hour | |
|---|---|---|---|---|---|---|---|
| | | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS |
| 1 | Doheny Dr / Wilshire Blvd | 0.910 | **E** | 0.942 | **E** | 0.755 | C |
| 2 | Almont Dr / Wilshire Blvd * | *** | **F** | *** | **F** | > 100 | **F** |
| 3 | La Peer Dr / Wilshire Blvd | 0.755 | C | 0.752 | C | 0.486 | A |
| 4 | Almont Dr / Charleville Blvd ** | 8.4 | A | 9.2 | A | 7.5 | A |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

The signalized Doheny Drive/Wilshire Boulevard intersection degrades from LOS D to LOS E during the weekday peak hours with the addition of traffic from area projects, and would remain at good LOS during the weekend mid-day period. The unsignalized intersection of Almont Drive/Wilshire Boulevard is forecast to continue to operate at LOS F during all periods of the analyzed scenario, with related project trips being added to Wilshire Boulevard with minor volume increases as well on Almont Drive.

The signalized La Peer Drive/Wilshire Boulevard and unsignalized Almont Drive/Charleville Boulevard intersections are forecast to operate at good levels of service for all time periods analyzed, even with the addition of traffic generated by area projects.

The level-of-service worksheets for this analysis scenario are provided in Appendix D of this report.

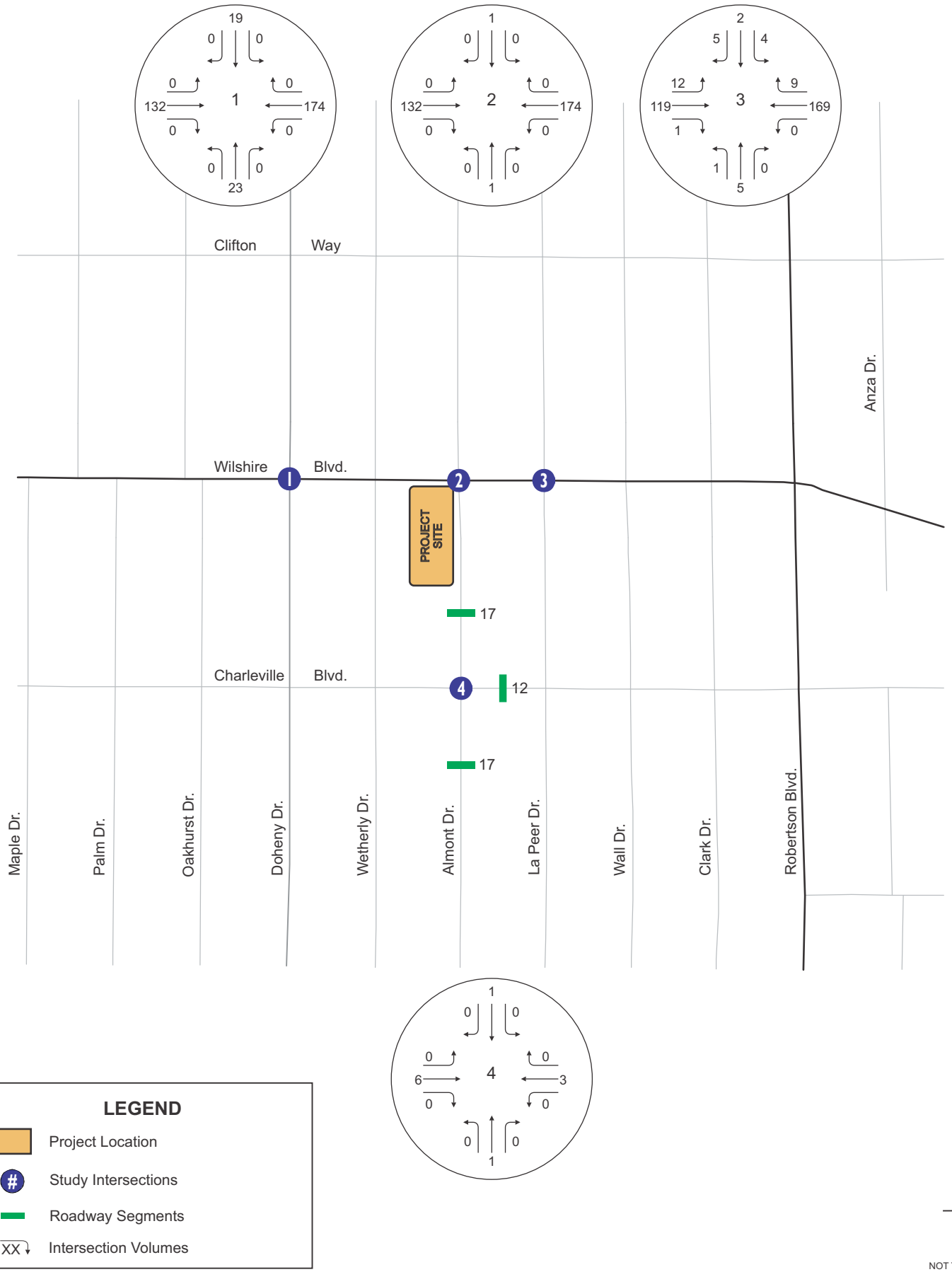


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Figure 10

Area Projects Trip Assignment - Weekday AM Peak Hour

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Figure 11

Area Projects Trip Assignment - Weekday PM Peak Hour

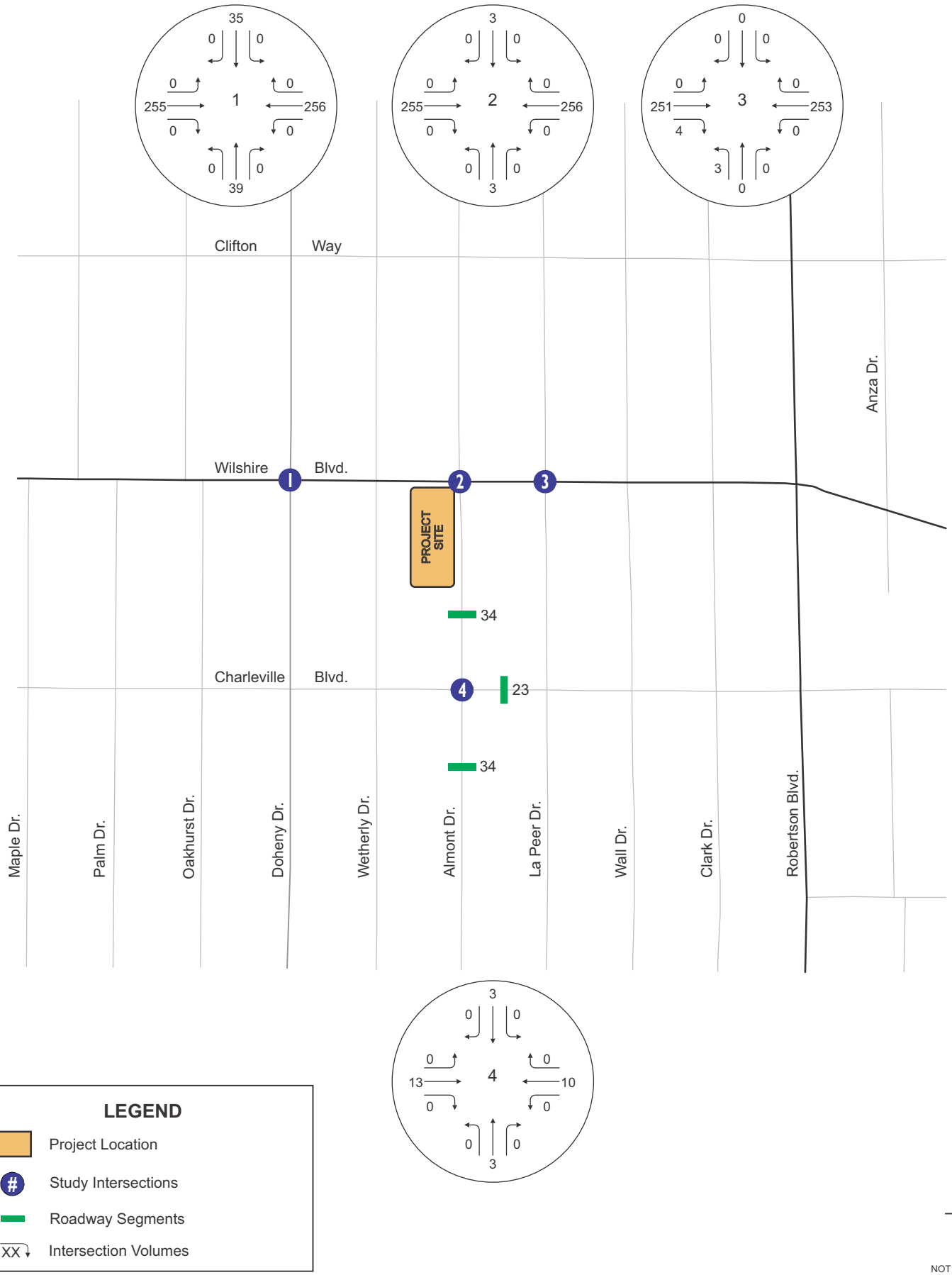


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Figure 12

Area Projects Trip Assignment - Saturday Midday Peak Hour

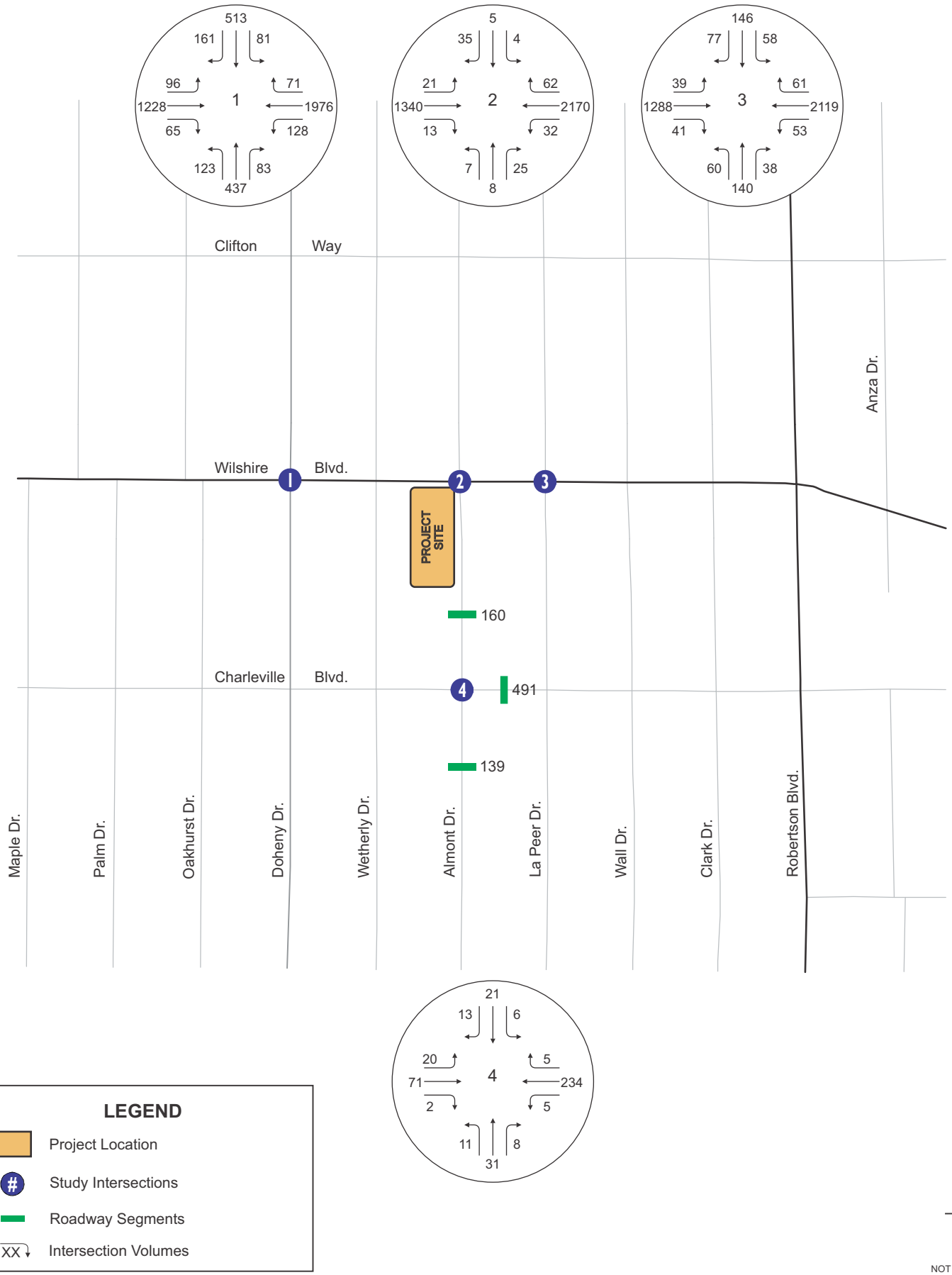


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Figure 13

Future (Year 2018) Growth with Area Projects - AM Peak Hour Intersection Volumes

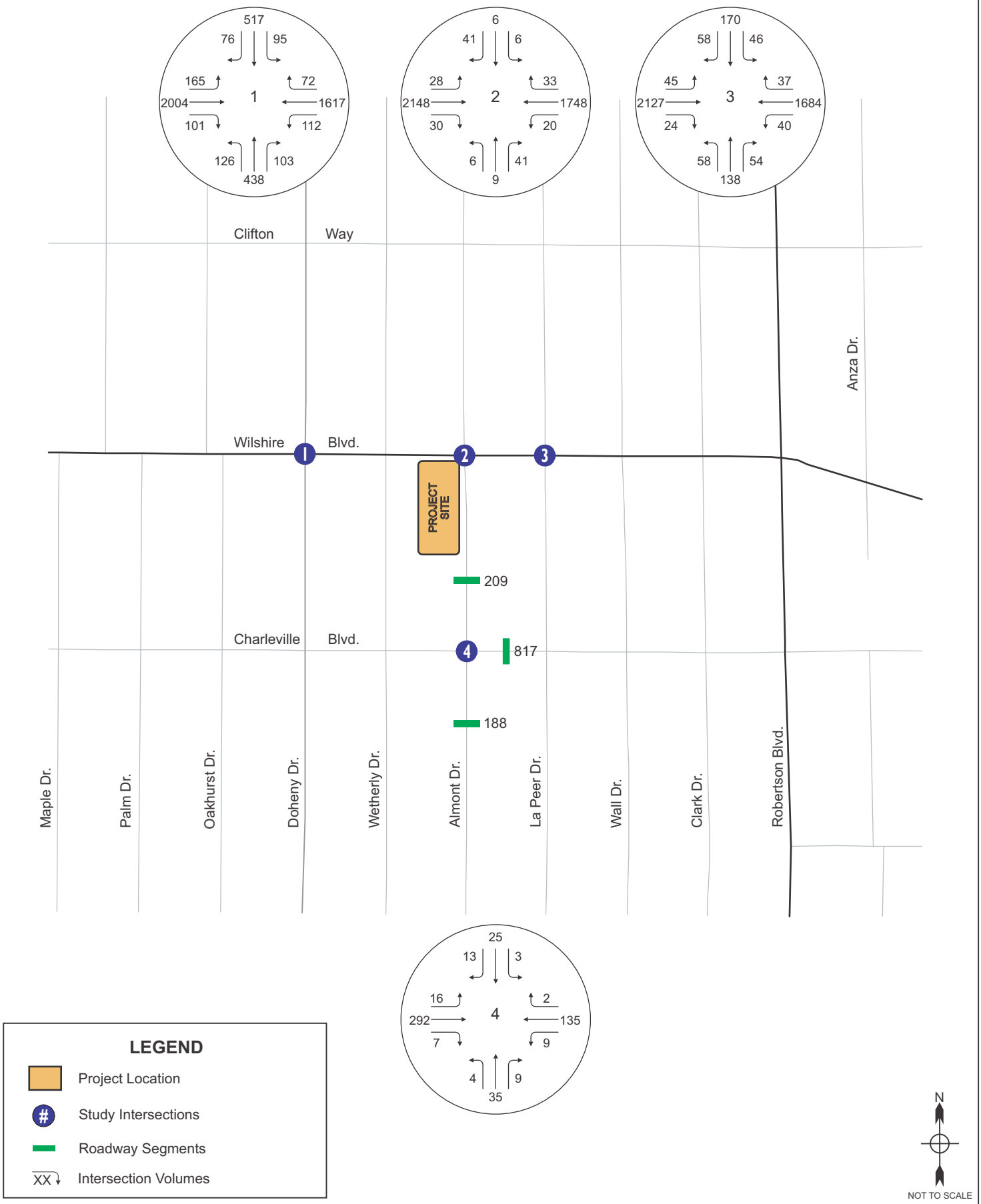


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Figure 14

Future (Year 2018) Growth with Area Projects - PM Peak Hour Intersection Volumes

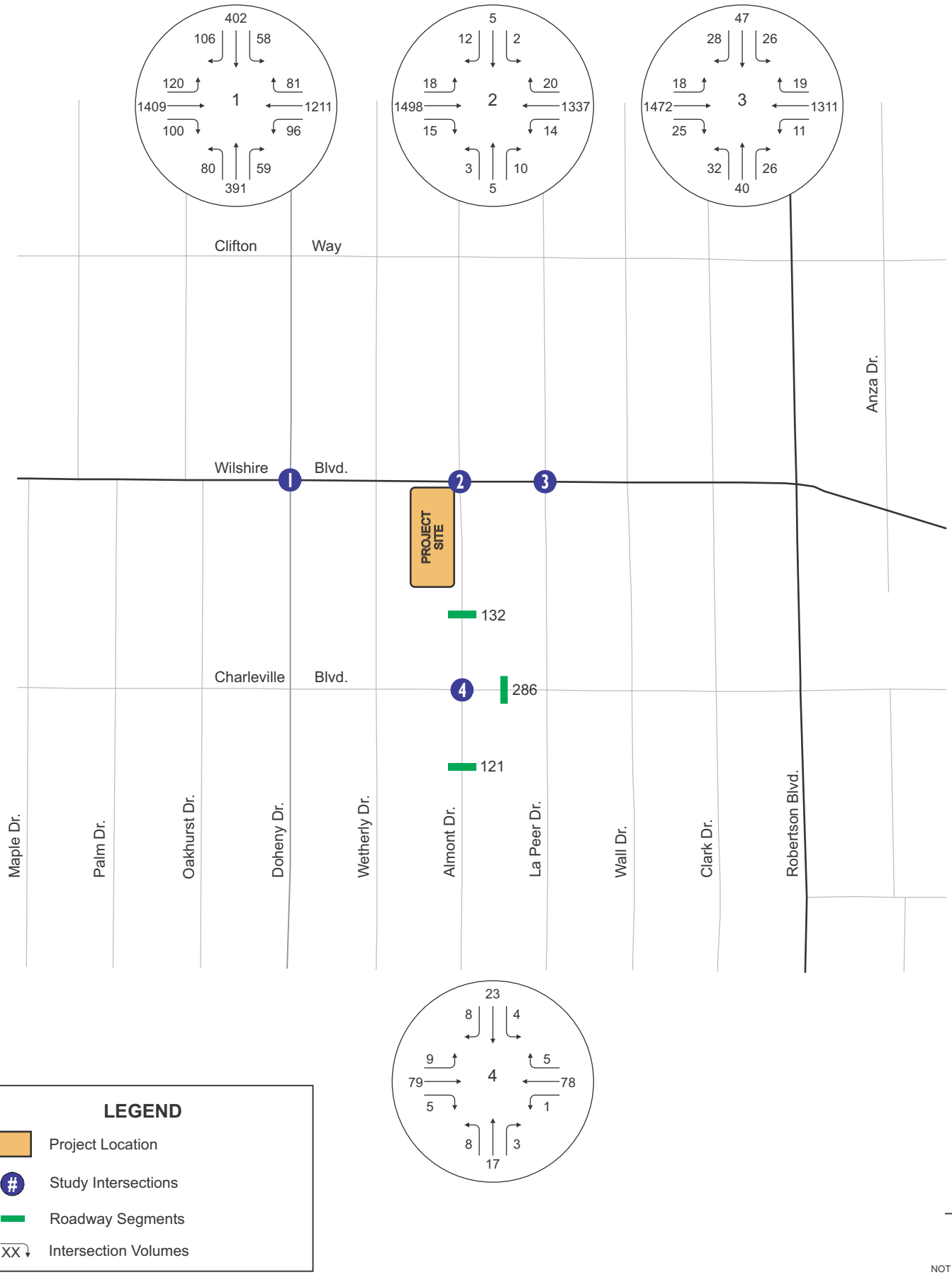


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Figure 15

Future (Year 2018) Growth with Area Projects - Saturday Midday Peak Hour Intersection Volumes

# 4. Project Trip Generation

This section summarizes the proposed Project land uses and the traffic generated by those uses. The technical assumptions including trip distribution patterns and traffic assignment to the study area are also discussed. The analyzed intensity of the proposed Project was defined by a total planned gross floor area of 31,702 square feet.

## *4.1. Project Trip Generation*

Vehicle access to the proposed Project site will be provided via a driveway on Almont Drive, which will provide access to the project parking structure.

In order to provide comparative land use trip generation rates for the proposed general office use of the proposed Project, weekday trip generation surveys were conducted at an office use similar to what is being proposed for the Project site. The similar land use was located at 9378 Wilshire Boulevard, a building with a single parking garage entrance on Canon Drive. Vehicles entering and exiting the driveway were counted along with patrons. Vehicles that parked adjacent to the site were also collected during November surveys. The totals were then compared to the office building size to produce empirical trip generation rates.

Surveys during peak periods were conducted on Thursday, November 8, 2012 and Thursday, November 15, 2012. Additional surveys were conducted during the week of March 11, 2013. The Friday count data from the March surveys was excluded from the final calculations, as it was notably lower than the other days of that week, indicating that some of the office suites are closed on Fridays.

The site office uses are closed on Saturdays, so survey data was focused only on weekday periods. Saturday rates were based solely on ITE rates. The ground-floor site commercial retail space was not leased at the time of the surveys, so the demand data only represents office use demand.

Table 6 defines the office use trip generation rate calculation results, based on the average peak period demand of the November 2012 and March 2013 surveys conducted at the 9378 Wilshire Boulevard site, in comparison to current ITE rates for general office use. The survey indicated that the 9378 Wilshire Boulevard office uses generated slightly less AM peak hour and PM peak hour trips than would be forecast using ITE rates.

**Table 6 – Comparison of Trip Generation Rates from 9378 Wilshire Boulevard Observations versus ITE**

| Land Use | Intensity | Units | Weekday Rates | | | | | | | Saturday Rates | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak | | | PM Peak | | | Daily | Mid-day | | |
| | | | | Total | In | Out | Total | In | Out | Total | Total | In | Out |
| ***Per Surveys*** | | | | | | | | | | | | | |
| 9378 Trip Generation Survey | 21,716 | s.f. | N/A | 1.16 | 95% | 5% | 1.41 | 9% | 91% | N/A | N/A | N/A | N/A |
| ***Per Trip Generation (9th edition)*** | | | | | | | | | | | | | |
| ITE Land Use #710 | 21,716 | s.f. | 11.03 | 1.56 | 88% | 12% | 1.49 | 17% | 83% | 2.46 | 0.43 | 54% | 46% |

To be more conservative, the ITE office rates for the proposed project were utilized for the analysis as these trip generation rates are higher than those defined by the survey data.

Appendix E provides the summaries of the trip generation surveys conducted at the 9378 Wilshire Boulevard site.

Table 7 provides the trip generation rates using ITE rates for all of the proposed Project land uses. The existing uses at the site, specialty retail spaces and a restaurant space, were included as part of existing trip generation calculations for the site, based on ITE rates for those uses.

**Table 7 – Project Trip Generation**

| Land Use | Intensity | Units | Weekday | | | | | | | Saturday | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak | | | PM Peak | | | Daily | Mid-day | | |
| | | | Total | Total | In | Out | Total | In | Out | Total | Total | In | Out |
| ***Trip Generation Rates*** | | | | | | | | | | | | | |
| Office Building | | s.f. | 11.03 | 1.56 | 88% | 12% | 1.49 | 17% | 83% | 2.46 | 0.43 | 54% | 46% |
| Quality Restaruant | | seat | 2.86 | 0.03 | 50% | 50% | 0.26 | 67% | 33% | 2.81 | 0.33 | 59% | 41% |
| Specialty Retail * | | s.f. | 44.32 | 1.20 | 60% | 40% | 2.71 | 44% | 56% | 42.04 | 4.89 | 52% | 48% |
| ***Project Trip Generation Estimates*** | | | | | | | | | | | | | |
| Office Building | 31,702 | s.f. | 350 | 49 | 43 | 6 | 47 | 8 | 39 | 78 | 14 | 8 | 6 |
| ***Project Subtotal*** | | | ***350*** | ***49*** | ***43*** | ***6*** | ***47*** | ***8*** | ***39*** | ***78*** | ***14*** | ***8*** | ***6*** |
| ***Existing Uses to be Removed*** | | | | | | | | | | | | | |
| Specialty Retail | (5,883) | s.f. | (261) | (7) | (4) | (3) | (16) | (7) | (9) | (247) | (29) | (15) | (14) |
| Quality Restaruant | (34) | seat | (97) | (1) | (1) | 0 | (9) | (6) | (3) | (96) | (11) | (6) | (5) |
| ***Existing Use Subtotal*** | | | ***(358)*** | ***(8)*** | ***(5)*** | ***(3)*** | ***(25)*** | ***(13)*** | ***(12)*** | ***(343)*** | ***(40)*** | ***(21)*** | ***(19)*** |
| **Net Trip Total** | | | **-8** | **41** | **38** | **3** | **22** | **-5** | **27** | **-265** | **-26** | **-13** | **-13** |

*Note: Trip generation rates for commercial retail uses were based on the ITE Trip Generation Manual (9th Edition), otherwise noted.*

** AM peak hour trip generation rates obtained from SANDAG Traffic Generators, May 2003.*

The data totals within Table 7 indicate that the proposed Project land use would generate a gross total of 350 weekday daily vehicle trips (including 49 trips during the weekday AM peak hour and 47 trips during the weekday PM peak hour), and 78 daily Saturday vehicle trips (including 14 during the mid-day peak hour).

Due to the net reduction in trips generated by the site on Saturdays, with the removal of existing uses and the opening of the proposed Project, further Saturday analysis was not conducted.

## *4.2. Project Trip Distribution*

Trip distribution is the process of assigning the directions from which traffic will access a project site. Trip distribution is dependent upon the land use characteristics of the project, the local roadway network, and the general locations of other land uses to which project trips would originate or terminate. Based on assumptions defined within the scoping document provided to the City, a trip distribution pattern was applied to Project trips.

Figure 16 illustrates the trip distribution percentages that were utilized for Project traffic.

## *4.3 Project Trip Assignment*

Based on the trip generation and distribution assumptions described above, Project traffic was assigned to the roadway system based on the site driveway location and the roadways that would likely be used to access the regional highway and freeway system.

The peak-hour Project trip assignment is illustrated on Figure 17 (weekday AM peak) and Figure 18 (weekday PM peak).

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Figure 16

Project Trip Distribution

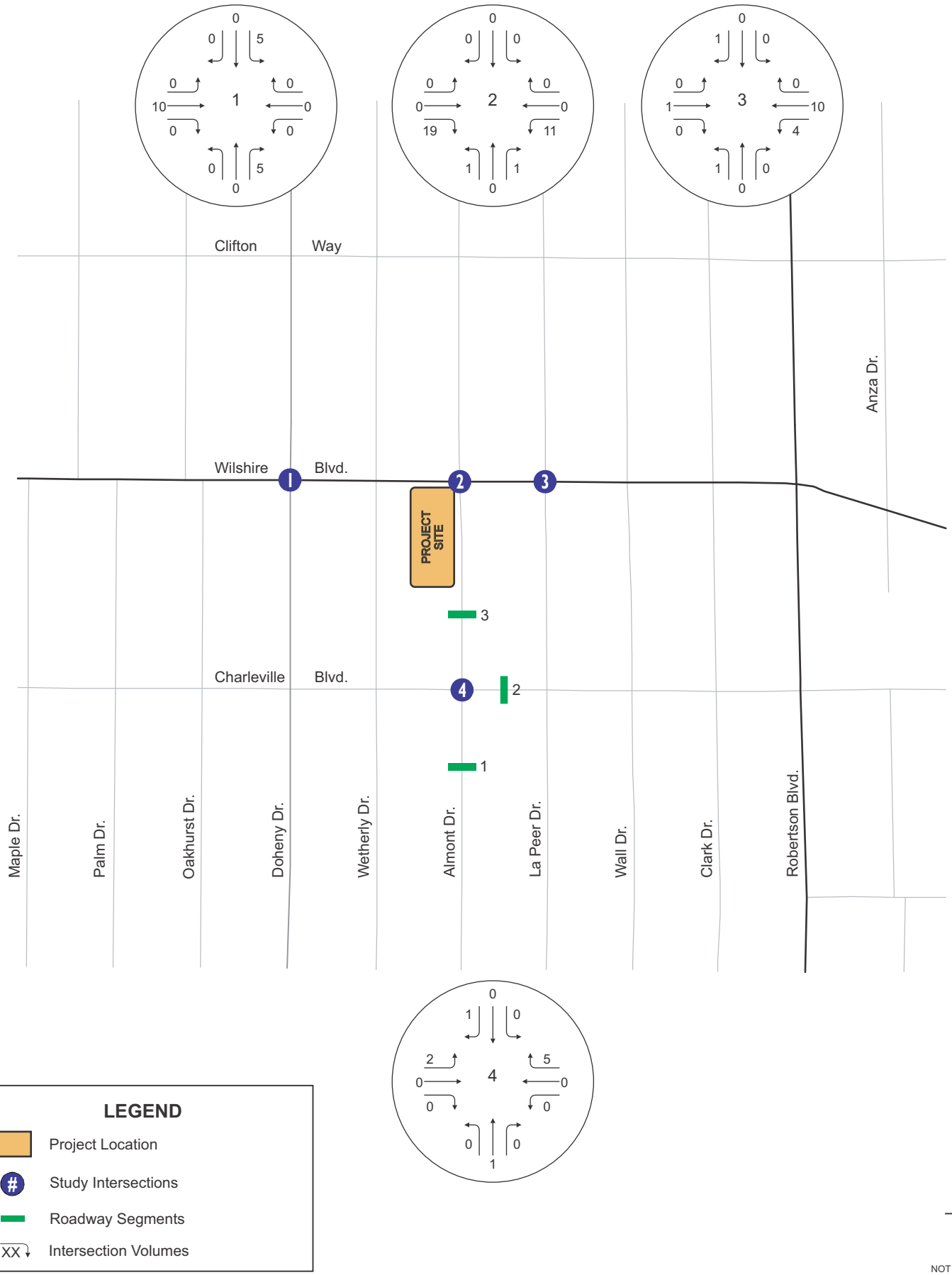


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Figure 17

Project Trip Assignment - Weekday AM Peak Hour

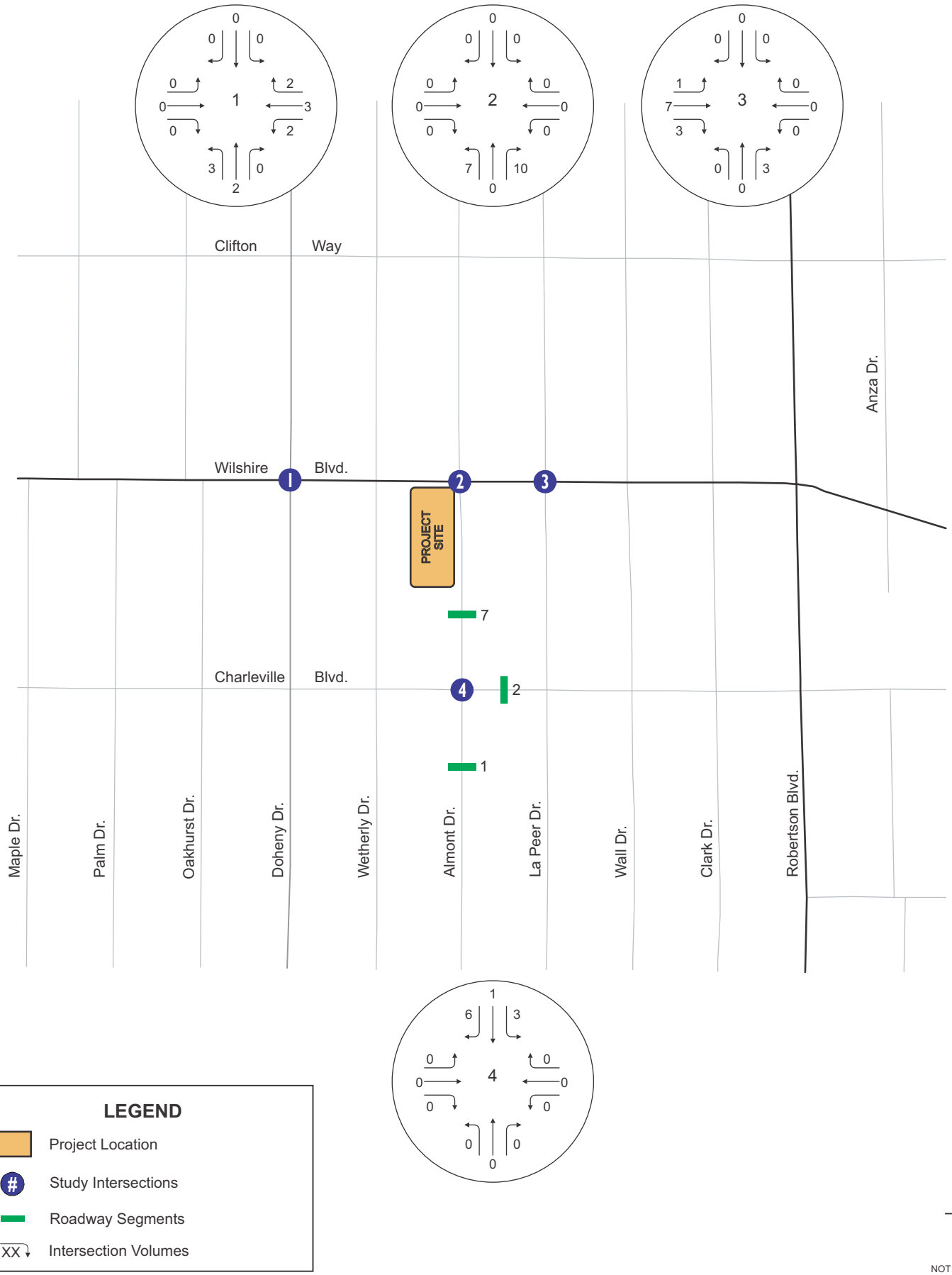


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Figure 18

Project Trip Assignment - Weekday PM Peak Hour

# 5. Existing (Year 2015) plus-Project Conditions

This section documents existing traffic conditions at the study intersections with the addition of Project-generated traffic. This analysis was undertaken to comply with rulings from the *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* and *Neighbors for Smart Rail v. Exposition Metro Rail Construction Authority* California court cases, regarding the interpretation of existing condition analysis in California Environmental Quality Act (CEQA) documents.

The court rulings indicated that impacts for a proposed project should be considered based on existing conditions for the determination of impacts, whether or not project-year or build-out-year conditions are analyzed.

The traffic volumes for this scenario were developed by adding the forecast traffic volumes to the existing volumes. These volumes are illustrated on Figure 19 (weekday AM peak hour), Figure 20 (weekday PM peak hour).

Table 8 summarizes the results of the level of service analysis for this scenario. Intersections that would operate at unacceptable level of service values of E or F are indicated by bold text within this table.

**Table 8 – Intersection Level of Service - Existing (Year 2015) plus-Project Conditions**

| | Study Intersections | Weekday AM Peak Hour | | Weekday PM Peak Hour | |
|---|---|---|---|---|---|
| | | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS |
| 1 | Doheny Dr / Wilshire Blvd | 0.841 | D | 0.863 | D |
| 2 | Almont Dr / Wilshire Blvd * | *** | **F** | *** | **F** |
| 3 | La Peer Dr / Wilshire Blvd | 0.691 | B | 0.681 | B |
| 4 | Almont Dr / Charleville Blvd ** | 8.4 | A | 9.0 | A |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

As indicated by the data in Table 8, the addition of Project traffic does not change any of the letter-grade levels of service at the study intersections, as compared to the existing conditions scenario.

The level-of-service worksheets for this scenario are provided in Appendix F of this report.

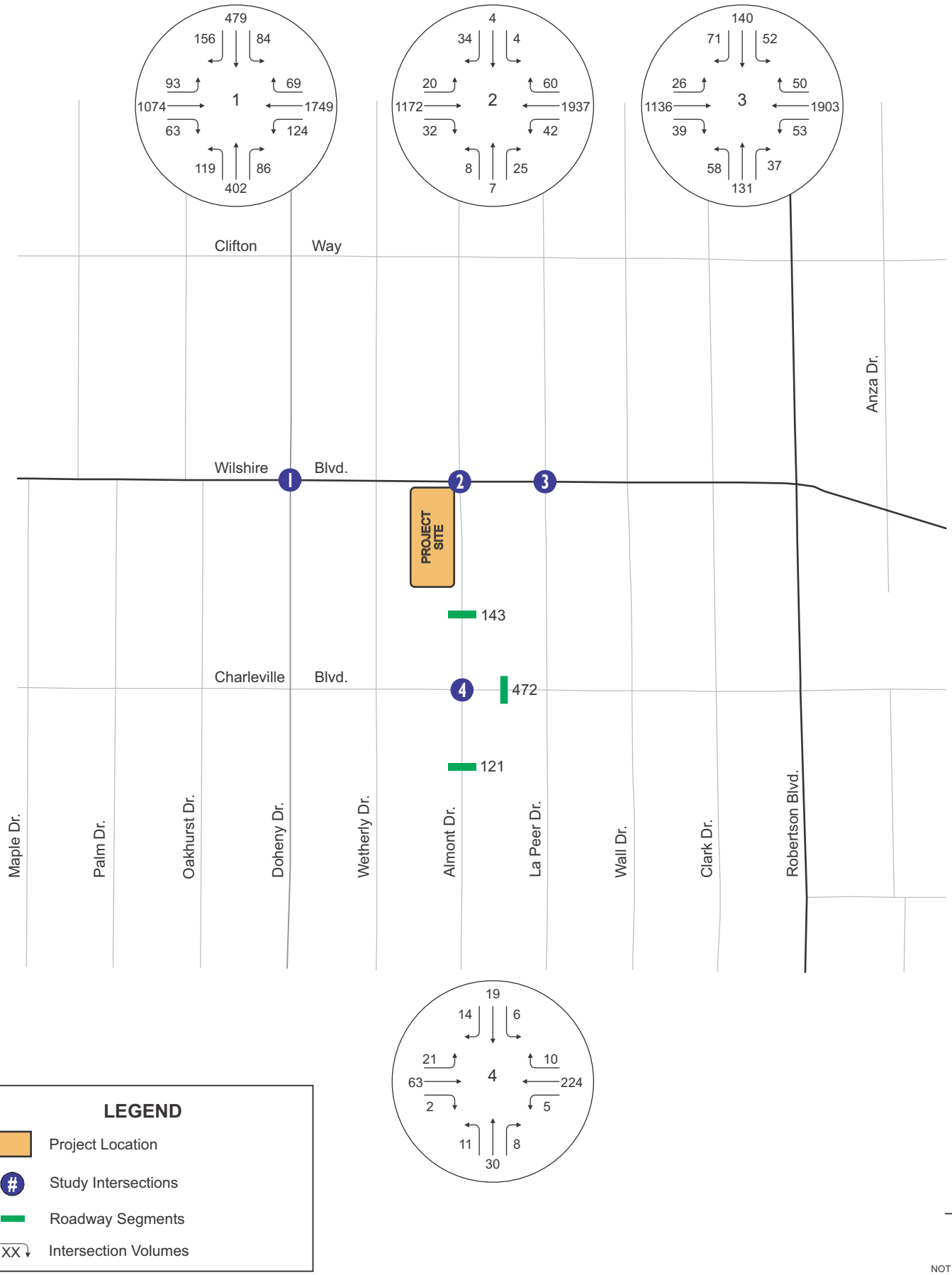


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Figure 19

Existing (Year 2015) Plus Project - Weekday AM Peak Hour Intersection Volumes

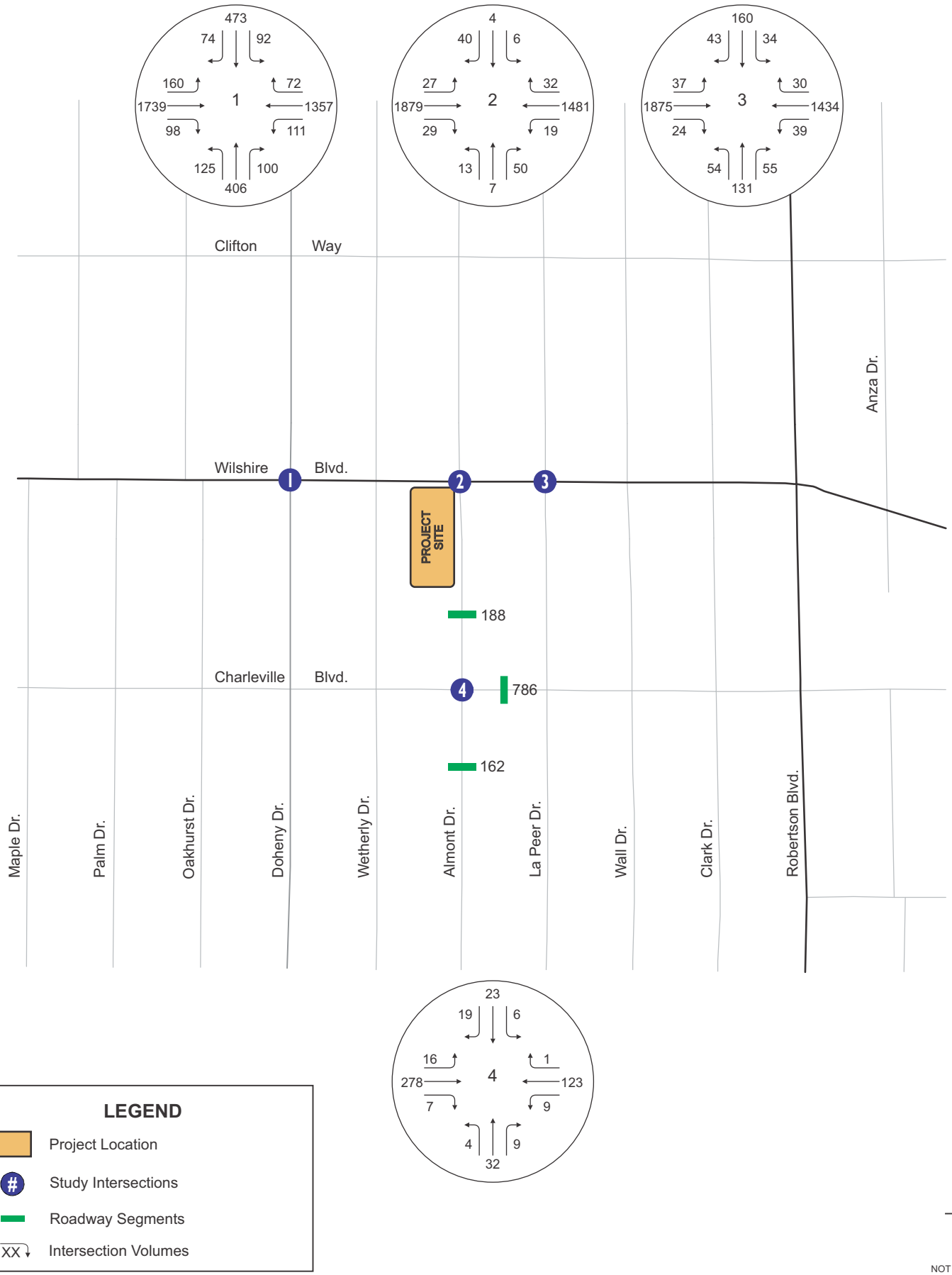


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Figure 20

Existing (Year 2015) Plus Project - Weekday PM Peak Hour Intersection Volumes

# 6. Future (Year 2018) Post-Project Conditions

This section documents future traffic conditions at the study intersections with the addition of Project-generated traffic in the Project planned opening year of 2018. Traffic volumes for this post-Project scenario were derived by adding the Project-only trips to the volumes defined for the future pre-Project scenario.

The traffic volumes for this scenario were developed by adding the project traffic volumes to the future volume forecasts, which included expected ambient traffic growth as well as forecast traffic growth from identified area project. The resulting traffic volumes are illustrated on Figure 21 (weekday AM peak hour) and Figure 22 (weekday PM peak hour).

Table 9 summarizes the results of the level of service analysis for this scenario. Intersections that would operate at unacceptable level of service values of E or F are indicated by bold text within this table.

**Table 9 – Intersection Level of Service - Future (Year 2018) Post-Project Conditions**

| | Study Intersections | Weekday AM Peak Hour | | Weekday PM Peak Hour | |
|---|---|---|---|---|---|
| | | ICU or Delay (sec.) | LOS | ICU or Delay (sec.) | LOS |
| 1 | Doheny Dr / Wilshire Blvd | 0.914 | **E** | 0.944 | **E** |
| 2 | Almont Dr / Wilshire Blvd * | *** | **F** | *** | **F** |
| 3 | La Peer Dr / Wilshire Blvd | 0.758 | C | 0.754 | C |
| 4 | Almont Dr / Charleville Blvd ** | 8.5 | A | 9.2 | A |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

As indicated by the data within Table 9, the addition of Project traffic to future year-2018 forecasts does not change any letter-grade intersection levels of service for any of the analyzed time periods.

The level-of-service worksheets for this scenario are provided in Appendix F of this report.

### *6.1 City Parking Code Requirements*

The proposed project parking supply would provide up to 91 parking spaces below grade.

The City of Beverly Hills requires 2.86 parking spaces per 1,000 square feet of commercial/office use development. Based on City Code, the project would require 91 parking spaces. Therefore, the proposed supply is adequate.

### *6.2 Parking Rates Comparison*

For comparison purposes, parking rates from ITE's *Parking Generation (4th Edition) Handbook* were applied to the proposed office development. Using the report's *ITE 701 – Office Building* average weekday peak period parking demand for an urban setting, a parking rate of 2.47 parking spaces per 1,000 square feet of commercial/office use development was used. Based on this rate, the project would demand 78 parking spaces. This would lead to a surplus of 13 parking spaces, meaning that the parking supply is more than adequate.

### *6.3 Alley/Driveway Access*

Some project trips may use the alley located to the south of Wilshire Boulevard, between Almont Drive and La Peer Drive. The intersections of the alley with north-south cross-streets in the vicinity of the Project site are signed with one-way directional signs, regulating an eastbound-only flow for vehicles within the alley segments. Outbound traffic from the Project may use this alleyway to travel eastbound and turn left on La Peer Drive to reach the existing traffic signal at La Peer Drive/Wilshire Boulevard.

New outbound a.m. peak hour traffic heading to Wilshire Boulevard from the Project site is estimated to be two vehicles. New outbound p.m. peak hour traffic heading in that direction is 17 vehicles. Seven of these vehicles are estimated to make a left-turn at his location, which would be an easier movement at the traffic signal at La Peer Drive. If these vehicles used the alley to reach La Peer Drive, the additional vehicle trips in the alley would occur on an average of eight to nine minutes during the peak hour.

If all trips destined for Wilshire Boulevard directly from the Project site in the p.m. peak hour used the alley instead, the increased vehicles trips would occur on an average of every three to four minutes. This complete shift in project trips is not likely. Therefore, increased trips in the alley may occur on a frequency higher than every nine minutes but lower than every four minutes. This low frequency of added trips, versus trips from the existing site uses that may use the alley under existing conditions, is not expected to cause a significant traffic impact or change the operating characteristics of the alley or its local intersections.

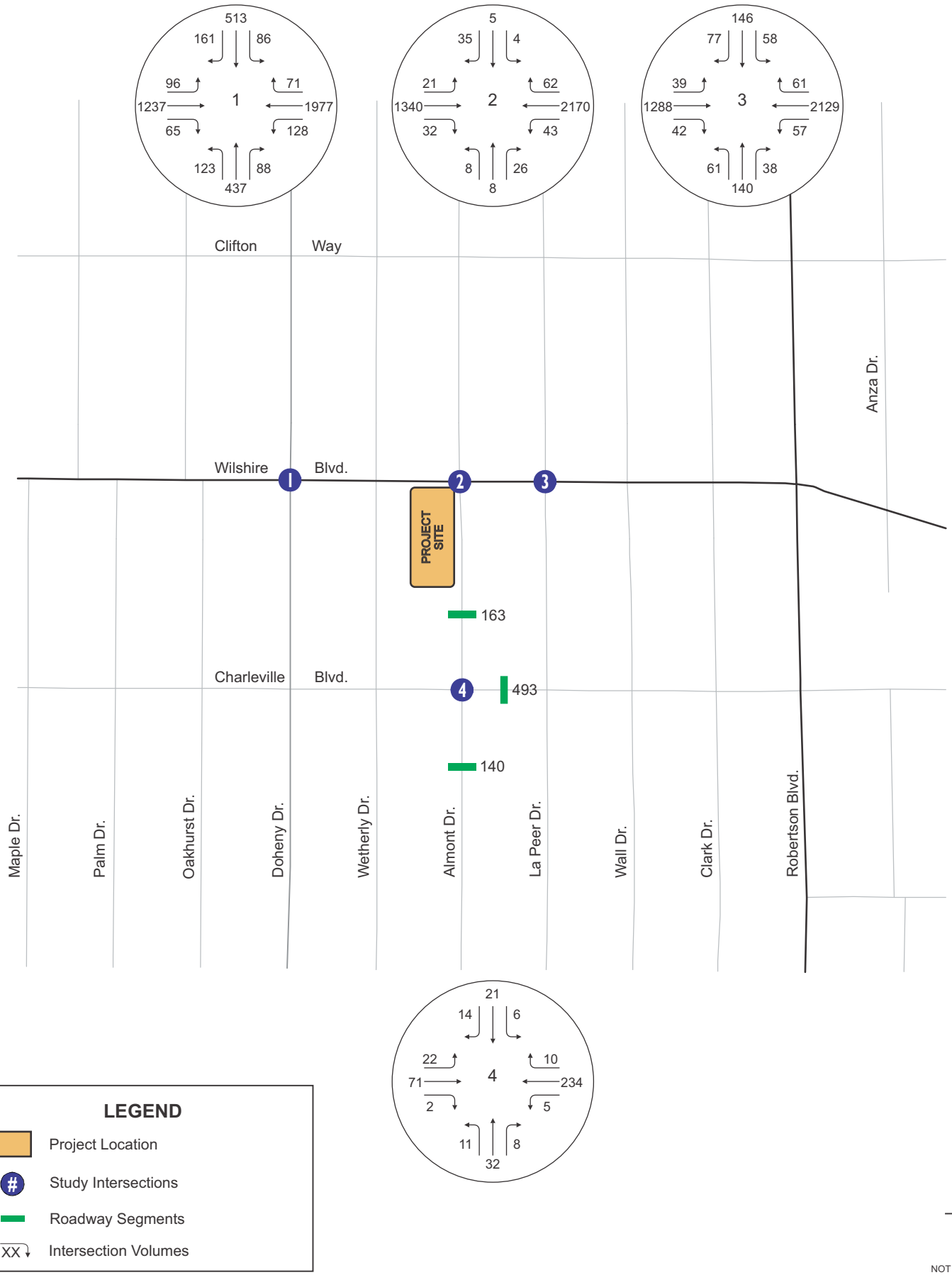
### *6.4 Project Driveway Operations*

The proposed Project driveway on Almont Drive would have a one-lane exit lane and a one-lane entrance lane. Almont Drive is a two-lane roadway. Left-turn movements into the Project site would occur from a shared lane that is also a northbound through movement. Right-turn movements into the Project site would occur from a shared lane that is also a southbound through movement.

Potential delay issues were examined for the inbound and outbound turn movements at this driveway location. The Highway Capacity Manual unsignalized methodology was used for this purpose. The following was concluded from this analysis:

- AM Peak Hour: The northbound movement will have an average vehicle delay of 7.4 seconds, caused by vehicles turning into the Project driveway. Operations would be at LOS A. Queues would be negligible.
- PM Peak Hour: The outbound/eastbound movement will have an average vehicle delay of 9.0 seconds, caused by vehicles waiting for cross-traffic on Almont. Operations would be at LOS A. Queues would be negligible.

Based on this analysis, special configurations of the driveway location inbound or outbound lanes are not recommended. Typical treatments can be applied.

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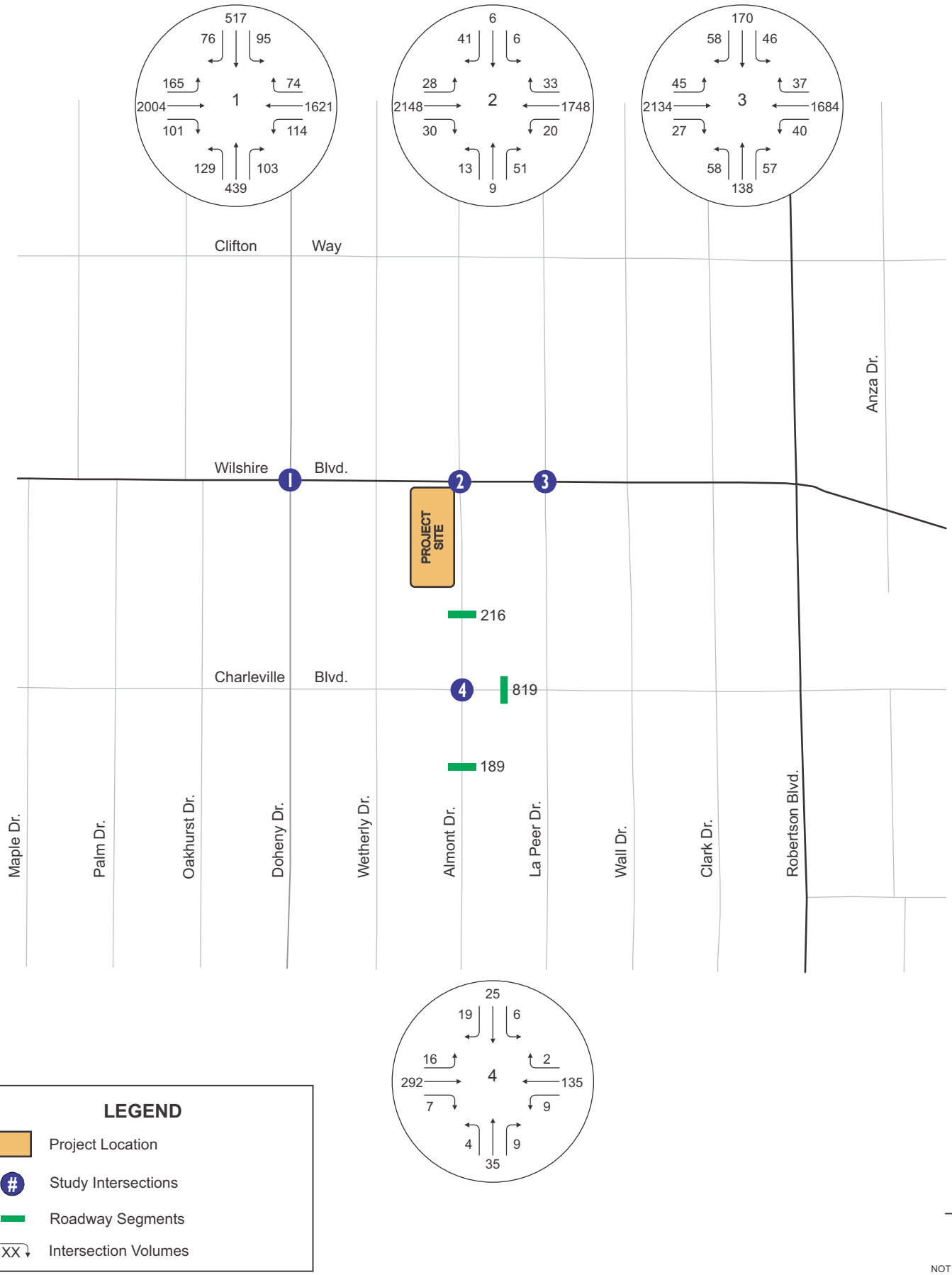
9000 Wilshire Boulevard, Beverly Hills - Office Building

Figure 21

Future (Year 2018) with Area Projects and Project - Weekday AM Peak Hour Intersection Volumes

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9000 Wilshire Boulevard, Beverly Hills - Office Building

Figure 22

Future (Year 2018) with Area Projects and Project - Weekday PM Peak Hour Intersection Volumes

# 7. Residential Roadway Segment Analysis

A residential street segment analysis, for Year 2018 conditions, was performed using the weekday AM and PM peak hours and Saturday midday period volumes as well as the weekday and Saturday at the following locations:

- Almont Drive, south of Wilshire Boulevard
- Charleville Boulevard, east of Almont Drive
- Almont Drive, south of Charleville Boulevard

Table 10 provides the results of the residential street analysis. For the analysis of distributed Project trips to these roadways, net trips were utilized, but negative numbers created due to the difference between proposed uses and existing uses were zeroed out. This provided a conservative analysis of roadway segment impacts.

**Table 10 – Residential Street Analysis – Assessment of Year 2018-Project Impacts**

| | Study Segments | Street Classification | Timeframe | Existing 2015 Volumes | Ambient Growth (2018) | Related Projects | Future (2018) Pre-Project Volumes | Future (2018) Post-Project | | | Significance Threshold | Significant Impact? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Project Volumes | Volumes | % Increase | | |
| 1 | Almont Dr - South of Wilshire Blvd | Local | Weekday Daily | 1,139 | 1,174 | 58 | 1,232 | 0 | 1,232 | 0.0% | 16% or more | No |
| | | | AM | 140 | 144 | 2 | 146 | 8 | 154 | 5.5% | 16% or more | No |
| | | | PM | 181 | 186 | 4 | 190 | 10 | 200 | 5.2% | 16% or more | No |
| | | | Saturday | 662 | 682 | 65 | 747 | 0 | 747 | 0.0% | 16% or more | No |
| | | | Saturday Mid-day | 96 | 99 | 6 | 105 | 0 | 105 | 0.0% | 16% or more | No |
| 2 | Charleville Blvd - East of Almont Dr | Local | Weekday Daily | 3,389 | 3,492 | 87 | 3,579 | 0 | 3,579 | 0.0% | 12% or more | No |
| | | | AM | 470 | 484 | 12 | 496 | 5 | 501 | 1.0% | 12% or more | No |
| | | | PM | 784 | 808 | 17 | 825 | 3 | 828 | 0.4% | 12% or more | No |
| | | | Saturday | 1,463 | 1,507 | 130 | 1,637 | 0 | 1,637 | 0.0% | 16% or more | No |
| | | | Saturday Mid-day | 258 | 266 | 23 | 289 | 0 | 289 | 0.0% | 16% or more | No |
| 3 | Almont Dr - South of Charleville Blvd | Local | Weekday Daily | 956 | 985 | 58 | 1,043 | 0 | 1,043 | 0.0% | 16% or more | No |
| | | | AM | 120 | 124 | 2 | 126 | 1 | 127 | 0.8% | 16% or more | No |
| | | | PM | 161 | 166 | 4 | 170 | 1 | 171 | 0.6% | 16% or more | No |
| | | | Saturday | 573 | 590 | 65 | 655 | 0 | 655 | 0.0% | 16% or more | No |
| | | | Saturday Mid-day | 85 | 88 | 6 | 94 | 0 | 94 | 0.0% | 16% or more | No |

The analysis results indicate that the proposed 9000 Wilshire Boulevard project will not add significant volumes to the three analyzed residential roadway segments, during any of the analyzed peak-hour periods. Saturday volumes would not increase due to the Project, based on the analysis of net Project trip generation including credits for the existing commercial retail use to be removed as part of Project construction.

Further analysis of potential impacts to area residential roadways is therefore not warranted.

# 8. Determination of Significant Impacts

This section of the report discusses the identified project significant impacts, based on the City of Beverly Hill significant impact criteria discussed in the introduction to this report.

## *8.1 Determination of Significant Intersection Impacts*

Existing (Year 2015) Baseline

As discussed within Section 5 of this report, the *Sunnyvale case* sets a precedent whereby existing conditions should be used as a baseline (although other baselines may exist) to examine potential project impacts. The more recent *Metro Expo Line* case has reinforced the need to analyze an existing conditions baseline.

Table 11 provides a comparison of the weekday a.m. and p.m. significant impact analysis results for the study intersections, using existing conditions as the baseline. Traffic impacts created by the project were calculated by subtracting the values in the "Existing (2015) Conditions" column from the values in the "Existing (2015) + Project" column.

The determinations of significant impacts for the study intersections are provided within the two columns at the right side of each table. The determination of significance with mitigation (discussed at the end of this report chapter) is also provided in the right-most column.

**Table 11 – Determination of Existing Plus-Project Impacts**

| Study Intersections | | Peak Hour | Existing (2015) Conditions | | Existing (2015) + Project | | Change in ICU/ Delay | Signif Impact? |
|---|---|---|---|---|---|---|---|---|
| | | | ICU or Average Total Delay (sec.) | LOS | ICU or Average Total Delay (sec.) | LOS | | |
| 1 | Doheny Dr / Wilshire Blvd | Weekday AM | 0.838 | D | 0.841 | D | 0.003 | No |
| | | Weekday PM | 0.861 | D | 0.863 | D | 0.002 | No |
| 2 | Almont Dr / Wilshire Blvd * | Weekday AM | *** | F | *** | F | # | No |
| | | Weekday PM | *** | F | *** | F | # | No |
| 3 | La Peer Dr / Wilshire Blvd | Weekday AM | 0.688 | B | 0.691 | B | 0.003 | No |
| | | Weekday PM | 0.679 | B | 0.681 | B | 0.002 | No |
| 4 | Almont Dr / Charleville Blvd ** | Weekday AM | 8.3 | A | 8.4 | A | 0.1 | No |
| | | Weekday PM | 9.0 | A | 9.0 | A | 0.0 | No |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

*# Conditions at this intersection worsen within LOS F with the addition of Project traffic, but at high levels where calculation of real delay becomes inaccurate.*

Analyzing the comparison of existing scenarios provided by Table 11, the Project does not generate any definable significant impacts.

Future (Year 2018) Baseline

In addition to the existing baseline analysis, a traditional future with-project analysis was also considered to assess potential project intersection impacts.

Table 12 provides a comparison of the weekday a.m. and p.m. significant impact analysis results for the study intersections, using future conditions as the baseline. Traffic impacts created by the project were calculated by subtracting the values in the "Future (2018) Conditions" column from the values in the "Future (2017) with Project" column.

**Table 12 – Determination of Future-Year Project Impacts**

| Study Intersections | | Peak Hour | Existing (2015) Conditions | | Future 2018 No Project | | Future 2018 With Project | | Change in ICU/ Delay | Signif Impact? |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ICU or Average Total Delay (sec.) | LOS | ICU or Average Total Delay (sec.) | LOS | ICU or Average Total Delay (sec.) | LOS | | |
| 1 | Doheny Dr / Wilshire Blvd | Weekday AM | 0.838 | D | 0.910 | E | 0.914 | E | 0.004 | No |
| | | Weekday PM | 0.861 | D | 0.942 | E | 0.944 | E | 0.002 | No |
| 2 | Almont Dr / Wilshire Blvd * | Weekday AM | *** | F | *** | F | *** | F | # | No |
| | | Weekday PM | *** | F | *** | F | *** | F | # | No |
| 3 | La Peer Dr / Wilshire Blvd | Weekday AM | 0.688 | B | 0.755 | C | 0.758 | C | 0.003 | No |
| | | Weekday PM | 0.679 | B | 0.752 | C | 0.754 | C | 0.002 | No |
| 4 | Almont Dr / Charleville Blvd ** | Weekday AM | 8.3 | A | 8.4 | A | 8.5 | A | 0.1 | No |
| | | Weekday PM | 9.0 | A | 9.2 | A | 9.2 | A | 0.0 | No |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

*# Conditions at this intersection worsen within LOS F with the addition of Project traffic, but the HCM Software cannot accurately assess project impact.*

Analyzing the comparison provided by Table 12, using year-2018 conditions as the baseline, the Project does not generate any definable significant impacts.

## *8.2 Determination of Significant Residential Roadway Impacts*

The analysis results for the residential roadway impact analysis in Section 7 indicate that the proposed 9000 Wilshire Boulevard project will not add significant volumes to the three analyzed residential roadway segments, during any of the analyzed peak-hour periods.

Further analysis of potential impacts to area residential roadways is therefore not warranted.

# 9. Future (Year 2018) Project Construction Conditions

This section documents the employee vehicle trip generation during the construction period of the proposed Project, along with the distribution and assignment of those trips to the study area roadway network. To evaluate a worst-case scenario for construction trip generation of the proposed Project, it is assumed that each employee would drive to and from work with some carpooling

## *9.1 Project Construction Trips*

During the construction period, a total of 50 employees would be on site. There would be six truck trips per hour. A Passenger Car Equivalency (PCE) rate of 2.5 was used for each truck trip.

It is assumed that some employees would carpool to and from work. An average rate of 1.2 people per vehicle was utilized to calculate the trip generation estimate. Table 13 summarizes the employee and truck trips during the a.m. and p.m. peak hours.

**Table 13 – Project Construction Trip Generation**

| | Intensity | Units | Weekday | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak | | | PM Peak | | |
| | | | Total | Total | In | Out | Total | In | Out |
| ***Contruction Trip Generation Estimates*** | | | | | | | | | |
| Employee | 50 | staff | 84 | 42 | 42 | 0 | 42 | 0 | 42 |
| Truck Trips* | | | 150 | 15 | 8 | 8 | 15 | 8 | 8 |
| ***Total Consstruction Trips*** | | | ***234*** | ***57*** | ***50*** | ***8*** | ***57*** | ***8*** | ***50*** |

*Construction workers would carpool to the project site, assumed a rate of 1.2 people per vehicle.*

** Truck trips include a Passenger Car Equivalency (PCE) factor of 2.5. Trucks - 6 trucks for hauling work per hour. Assumed 10x for daily.*

As indicated by Table 13, Project construction would generate a daily total of 84 employee trips, with 42 trips during the a.m. peak hour and 42 trips during the p.m. peak hour. It is assumed all employees would arrive to the site during the morning peak and leave during the afternoon peak. The PCE-adjusted truck trips would generate a daily total of 150 trips, with 15 trips during the a.m. and p.m. peak hours.

## *9.2 Project Construction Significant Impact Determination*

Based on the same significant impact methodology from the previous section, Table 14 summarizes the weekday a.m. and p.m. signification impact analysis results for the study intersections. Traffic impacts created by the project construction were calculated by subtracting the values in the "Future (2018) No Project Conditions" column from the values in the "Future (2018) with Construction" column.

**Table 14 – Determination of Project Construction Impacts**

| Study Intersections | | Peak Hour | Existing (2015) Conditions | | Future 2018 No Project | | Future 2018 With Contruction | | Change in ICU/ Delay | Signif Impact? |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ICU or Average Total Delay (sec.) | LOS | ICU or Average Total Delay (sec.) | LOS | ICU or Average Total Delay (sec.) | LOS | | |
| 1 | Doheny Dr / Wilshire Blvd | Weekday AM | 0.838 | D | 0.910 | E | 0.910 | E | 0.000 | No |
| | | Weekday PM | 0.9 | D | 0.942 | E | 0.950 | E | 0.008 | No |
| 2 | Almont Dr / Wilshire Blvd * | Weekday AM | *** | F | >100 | F | *** | F | # | No |
| | | Weekday PM | *** | F | >100 | F | *** | F | # | No |
| 3 | La Peer Dr / Wilshire Blvd | Weekday AM | 0.688 | B | 0.755 | C | 0.779 | C | 0.024 | No |
| | | Weekday PM | 0.679 | B | 0.752 | C | 0.763 | C | 0.011 | No |
| 4 | Almont Dr / Charleville Blvd ** | Weekday AM | 8.3 | A | 8.4 | A | 8.4 | A | 0.0 | No |
| | | Weekday PM | 9.0 | A | 9.2 | A | 9.2 | A | 0.0 | No |

** Unsignalized intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

*** All-way stop-controlled intersection - the HCM methodology was utilized to analyze the vehicle delay in seconds.*

**** At high levels of congestion, the Highway Capacity Manual output for unsignalized operations grows exponentially with added volumes. The incremental change cannot be calculated, and the high congestion is not attributable to the project. Significant impacts were not defined at this location.*

*# Conditions at this intersection worsen within LOS F with the addition of Project traffic, but the HCM Software cannot accurately assess project impact.*

The comparison provided by Table 14, using year-2018 conditions as the baseline, indicates that the Project would not create any definable significant impacts.

### *9.3 Truck Routes*

The Beverly Hills General Plan designates truck routes within the City. Within the local area, Wilshire Boulevard is the closest east-west truck route and Doheny Drive and Robertson Boulevard are the closest north-south truck routes. The following construction truck trip routes are recommended, assuming materials delivery trucks and any dirt hauling trucks that would be reaching the site from the I-10 freeway and local roadways:

- Inbound: Project truck trips destined for the site from the I-10 freeway should travel north on Doheny Drive, east on Wilshire Boulevard, and make a right-turn movement into the site or onto Almont Drive and into the site via that roadway.

- Outbound: Project truck trips destined for the I-10 freeway from the site should depart the site and travel east on Wilshire Boulevard and south on Robertson Boulevard to the freeway corridor.

Truck trips on Almont Drive should only be routed between Wilshire Boulevard and the site access point. Truck trips should not occur south of the site location on Almont Drive.

### *9.4 Construction Employee Parking*

During the construction period, construction worker vehicle parking will need to be provided. With a maximum staffing level of 50 persons, it is assumed that the total vehicle parking need for construction staff would be 34 vehicles. This is based on carpooling activity and an average vehicle occupancy of 1.5.

The contractor will procure parking from surrounding commercial buildings until the project underground parking structure is constructed. After that point, the contractor will use the project off-street and underground parking supply, while the remainder of the project elements are under construction.

# 10. CMP and Caltrans Facility Impacts

This section demonstrates conformance of this traffic study to impact analysis procedures mandated by the County of Los Angeles congestion Management Program (CMP) and State of California Department of Transportation (Caltrans), regarding impacts of new developments on regional travel routes.

## *10.1 Congestion Management Program*

The CMP was created statewide because of Proposition 111 and was implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed.

A specific system of arterial roadways plus all freeways comprises the CMP system. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted where:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed project will add 50 or more vehicle trips during either morning or afternoon weekday peak hours.

- At CMP mainline freeway-monitoring locations, where the project will add 150 or more trips, in either direction, during the either the morning or afternoon weekday peak hours.

## *10.2 Caltrans Facility Impacts*

Impacts to CMP Arterial

The nearest CMP arterial monitoring intersections to the project site are on Wilshire Boulevard at Santa Monica Boulevard and La Cienega Boulevard in the City of Beverly Hills. Based on the Project trip generation and the distance of this CMP location from the study intersections, it is not expected that 50 or more new trips per hour would be added to this location. Therefore, no further analysis of potential CMP impacts is required.

Impacts to CMP Freeway

There are no nearby CMP mainline freeway-monitoring locations near the project site. As such, the project would not be expected to add 150 new trips per hour to any freeway segments, since the project would generate less than 150 total trips. Therefore, no further analysis of CMP freeway monitoring stations is required.

# 11. Analysis Summary

The following summarizes the traffic study results and conclusions:

Scoping and Baseline Conditions

- Based on the scoping document submitted to the City and discussed and verified with staff, the Project study area included four intersections. Significant traffic impacts of the proposed Project were analyzed within the weekday a.m. and p.m. peak hours. Based on the trip generation analysis and negative Project trip totals for Saturday, based on credits that included existing land uses, a Saturday impact analysis was not undertaken.

- Under existing conditions, the signalized Doheny Drive/Wilshire Boulevard intersection operates at LOS D during the weekday peak hours and at good LOS B during the Saturday midday period. The unsignalized intersection of Almont Drive/Wilshire Boulevard operates at poor LOS values of E or F during all time periods, based on delay at the minor stop sign-controlled approaches. The other study intersections operate at good levels of service for all time periods analyzed.

- The future-period impact analysis included ambient growth through the year 2018, when the proposed Project is expected to be completed. A total of 42 area/cumulative projects were identified within the City of Beverly Hills, City of West Hollywood, and City of Los Angeles.

- Under future year-2018 pre-Project conditions, the signalized Doheny Drive/Wilshire Boulevard intersection degrades from LOS D to LOS E during the weekday peak hours with the addition of area projects traffic. The intersection is forecast to continue operating satisfactorily during the Saturday mid-day period. The unsignalized intersection of Almont Drive/Wilshire Boulevard will worsen within LOS F during the weekday peak periods. It will degrade to LOS F during the Saturday mid-day period. The signalized La Peer Drive/Wilshire Boulevard and unsignalized Almont Drive/Charleville Boulevard intersections are forecast to operate at good levels of service for all time periods analyzed, even with the addition of area projects traffic.

Project Trip Generation, Parking Supply, and Access

- The project gross floor area would total 31,702 square feet.

- The proposed project parking supply would provide up to 91 parking spaces below grade. Project site vehicle access will be provided via a driveway on Almont Drive.

- In order to provide a comparison of land use trip generation rates for the proposed general office use of the proposed Project, weekday trip generation surveys were conducted at an office use similar to the Project, at 9378 Wilshire Boulevard. The ITE rates were applied to the proposed office use, as they are higher and provide a more conservative analysis.

- Based on the applied ITE trip generation rates, and including credits for existing uses, the net Project trip generation would be a negative total for weekday daily trips, 41 trips during the AM peak hour, and 22 trips during the PM peak hour. There would be a net negative number for Saturday trips.

Post-Project Conditions and Impacts

- The addition of Project traffic to analyzed future year-2018 conditions does not change any letter-grade intersection levels of service for any of the analyzed time periods, although conditions would worsen within LOS F with the addition of Project traffic.

- Based on the applied City of Beverly Hills significant impact criteria, the proposed Project would not create any definable significant impacts.

- The residential street analysis indicates that the proposed 9000 Wilshire Boulevard project will not add significant volumes to the three analyzed residential roadway segments.

- The project is not anticipated to have any Congestion Management Project (CMP) significant impacts or to have any significant impacts to Caltrans facilities.

- The proposed Project will provide up to 91 parking spaces, which is sufficient to meet forecast parking demand.

# APPENDIX A
## Study Scoping Document

# SCOPING FOR TRAFFIC AND PARKING STUDY

9000 Wilshire Boulevard, Beverly Hills – Office Building

This scoping document acknowledges City of Beverly Hills requirements of traffic impact and parking analysis for the following project.

## Project Description

A general office project has been proposed by 9000 Wilshire LLC and would be located at 9000 Wilshire Boulevard in the City of Beverly Hills.

The current project site plan defines the project land use floor area as 31,746 square feet in a three-story structure. The project may be expanded to a 42,768 square-foot building with a four-story structure, which will be analyzed as a project alternative.

The proposed project subterranean parking structure would be accessed from South Almont Drive. The building front pedestrian entrance would also be on South Almont Drive.

The proposed project parking supply would provide up to 91 parking spaces below grade for the three-story proposed building or 123 parking spaces for the four-story alternative.

Attachment A illustrates the project site location and the proposed study intersection and roadway segment locations.

## Trip Generation and Parking Demand

The trip generation and parking demand of the project will be calculated using nationally-accepted rates defined by the Institute of Transportation Engineers (ITE) in *Trip Generation*. Parking will be analyzed per City Code. Rates from ITE *Parking Generation* will be provided as a comparison.

## Site Access and Queuing Analysis

The site plan driveway configuration will be reviewed, to determine where limit lines should be placed for entering/waiting vehicles at a parking control access gate. The results of this effort will be used as inputs for on-site queuing capacity. The expected inbound queue at peak times will be calculated and compared to queuing capacity as provided on the site plan.

## Data Collection at Intersections/Segments

Manual peak-hour turning movement counts will be collected on a weekday during the weekday a.m. peak period (7:30 a.m. to 9:30 a.m.), weekday p.m. peak period (4:30 p.m. to 6:30 p.m.), and Saturday mid-day period (1:00 p.m. to 3:00 p.m.) at four study intersections:

1. Doheny Drive/Wilshire Boulevard
2. Almont Drive/Wilshire Boulevard
3. La Peer Drive/ Wilshire Boulevard
4. Almont Drive/Charleville Boulevard

Weekday 24-hour machine counts for a weekday and a Saturday (likely to be set up as a continuous count from a Thursday through Saturday) will also be conducted at the following study roadway segments:

A. Almont Drive, to south of Wilshire Boulevard
B. Charleville Boulevard, to east of Almont Drive
C. Almont Drive, 200 South block

**Project Analysis Year:** 2016 **Annual Ambient Growth Rate:** 1%

## Area/Cumulative Projects

Area projects trip generation will be created from project information, per City related project list.

## Construction Period Analysis

KOA will estimate construction-period trips generated by trucks and employee vehicles, with the maximum truck trip generation rate of six trucks per hour. Construction truck routes will be defined to potentially reduce impacts to residential streets and to nearby roadway segments and intersections. Estimated construction parking needs will be addressed.

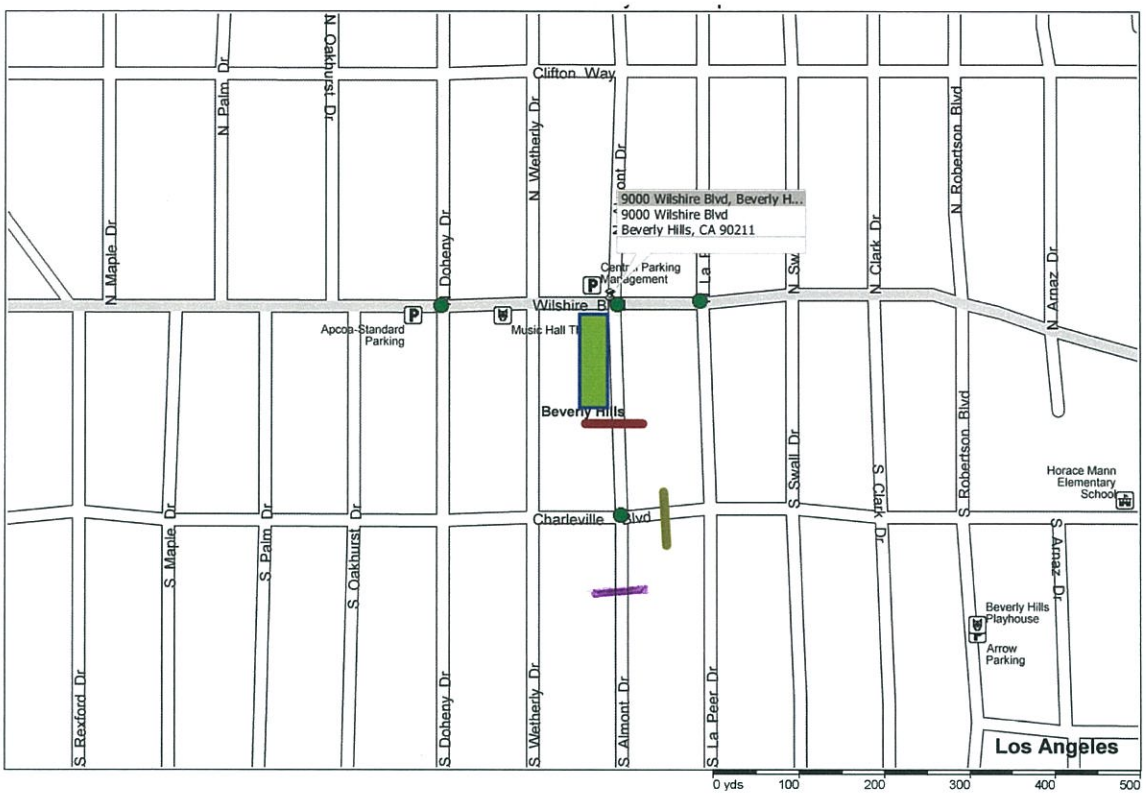
## Level of Service and Impacts

The traffic impact analysis will follow applicable guidelines and policies of the City of Beverly Hills. The level of service (LOS) analysis will use the Intersection Capacity Utilization (ICU) methodology, as accepted by the City. Project impacts will be analyzed against existing and future baseline conditions. Circulation of the nearby alley and the project driveway will also be analyzed.

## Contact Information

| | **Traffic Consultant:** | **Developer:** |
|---|---|---|
| Name | KOA Corporation | 9000 Wilshire LLC |
| Address | 1100 Corporate Center Dr., Suite 201<br>Monterey Park, CA 91754-7642 | 1805 Colorado Avenue<br>Santa Monica, California 90404 |
| Contact: | Brian Marchetti, (323) 260-4703,<br>bmarchetti@koacorp.com | Sean Youssefi, (310) 447-3000,<br>sean.youssefi@taslimi.com |

# ATTACHMENT A
## PROJECT SITE AND STUDY LOCATIONS



# APPENDIX B
# Traffic Count Data

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-001 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**AM**

| **NS/EW Streets:** | Doheny Dr | | | Doheny Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 7:30 AM | 20 | 65 | 8 | 13 | 103 | 36 | 13 | 179 | 14 | 15 | 391 | 13 | 870 |
| 7:45 AM | 11 | 84 | 11 | 19 | 117 | 41 | 21 | 217 | 8 | 20 | 439 | 9 | 997 |
| 8:00 AM | 21 | 81 | 9 | 9 | 117 | 47 | 12 | 273 | 11 | 15 | 410 | 13 | 1018 |
| 8:15 AM | 19 | 100 | 17 | 10 | 116 | 42 | 21 | 244 | 13 | 31 | 428 | 12 | 1053 |
| 8:30 AM | 27 | 105 | 24 | 21 | 146 | 55 | 20 | 254 | 14 | 33 | 479 | 14 | 1192 |
| 8:45 AM | 32 | 106 | 27 | 9 | 124 | 38 | 26 | 268 | 14 | 40 | 429 | 16 | 1129 |
| 9:00 AM | 30 | 99 | 12 | 26 | 118 | 27 | 25 | 266 | 19 | 28 | 412 | 15 | 1077 |
| 9:15 AM | 30 | 92 | 18 | 23 | 91 | 36 | 22 | 276 | 16 | 23 | 429 | 24 | 1080 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 190 | 732 | 126 | 130 | 932 | 322 | 160 | 1977 | 109 | 205 | 3417 | 116 | 8416 |
| **APPROACH %'s :** | 18.13% | 69.85% | 12.02% | 9.39% | 67.34% | 23.27% | 7.12% | 88.02% | 4.85% | 5.48% | 91.41% | 3.10% | |
| **PEAK HR START TIME :** | 830 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 | 4478 |
| **PEAK HR FACTOR :** | | 0.912 | | | 0.804 | | | 0.971 | | | 0.923 | | 0.939 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-001 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**PM**

| **NS/EW Streets:** | Doheny Dr | | | Doheny Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 4:30 PM | 39 | 104 | 26 | 21 | 121 | 28 | 36 | 430 | 25 | 27 | 269 | 20 | 1146 |
| 4:45 PM | 31 | 95 | 26 | 22 | 108 | 32 | 32 | 419 | 15 | 21 | 300 | 12 | 1113 |
| 5:00 PM | 26 | 111 | 21 | 28 | 123 | 28 | 39 | 439 | 22 | 26 | 338 | 16 | 1217 |
| 5:15 PM | 30 | 100 | 26 | 32 | 102 | 18 | 32 | 426 | 19 | 24 | 331 | 27 | 1167 |
| 5:30 PM | 30 | 99 | 27 | 18 | 122 | 21 | 48 | 443 | 21 | 30 | 339 | 11 | 1209 |
| 5:45 PM | 32 | 99 | 24 | 18 | 126 | 19 | 35 | 421 | 28 | 27 | 349 | 15 | 1193 |
| 6:00 PM | 30 | 106 | 23 | 24 | 123 | 16 | 45 | 449 | 30 | 28 | 335 | 17 | 1226 |
| 6:15 PM | 26 | 105 | 25 | 18 | 110 | 32 | 39 | 419 | 25 | 32 | 298 | 13 | 1142 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 244 | 819 | 198 | 181 | 935 | 194 | 306 | 3446 | 185 | 215 | 2559 | 131 | 9413 |
| **APPROACH %'s :** | 19.35% | 64.95% | 15.70% | 13.82% | 71.37% | 14.81% | 7.77% | 87.53% | 4.70% | 7.40% | 88.09% | 4.51% | |

| **PEAK HR START TIME :** | 515 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 | 4795 |
| **PEAK HR FACTOR :** | | 0.984 | | | 0.980 | | | 0.953 | | | 0.980 | | 0.978 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Doheny Dr and Wilshire Blvd , Beverly Hills*

Date: 6/30/2015

Day: Tuesday

Project #: 15-5411-001

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | 830 AM |
| NOON Peak Hour | |
| PM Peak Hour | 515 PM |

### Peak Hour Summary

**Southbound Approach** (Doheny Dr)

| Lanes | 0 | 2 | 1 | | |
|---|---|---|---|---|---|
| AM | 156 | 479 | 79 | 564 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 74 | 473 | 92 | 634 | PM |

**Eastbound Approach** (Wilshire Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 2024 | 0 | 1550 |
| 1 | 93 | 0 | 160 |
| 3 | 1064 | 0 | 1739 |
| 0 | 63 | 0 | 98 |

**Westbound Approach**

| Lanes | AM | NOON | PM |
|---|---|---|---|
| 0 | 69 | 0 | 70 |
| 3 | 1749 | 0 | 1354 |
| 1 | 124 | 0 | 109 |
| | 1224 | 0 | 1931 |

**Northbound Approach**

| | | | | | Lanes |
|---|---|---|---|---|---|
| AM | 666 | 119 | 402 | 81 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 680 | 122 | 404 | 100 | PM |

**CONTROL**: Signalized

| Count Periods | Start | End |
|---|---|---|
| AM | 7:30 AM | 9:30 AM |
| NOON | | |
| PM | 4:30 PM | 6:30 PM |

### Total Ins & Outs

| | North Leg | | | East Leg | | | South Leg | | | West Leg | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 714 | 564 | AM | 1942 | 0 | 1533 | 666 | 602 | AM | 2024 | 0 | 1550 |
| NOON | 0 | 0 | NOON | 1224 | 0 | 1931 | 0 | 0 | NOON | 1220 | 0 | 1997 |
| PM | 639 | 634 | PM | | | | 680 | 626 | PM | | | |

### Total Volume Per Leg

| | North Leg | East Leg | South Leg | West Leg |
|---|---|---|---|---|
| AM | 1278 | 3166 | 1268 | 3244 |
| NOON | 0 | 0 | 0 | 0 |
| PM | 1273 | 3464 | 1306 | 3547 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-001 **Day:** Saturday

**City:** Beverly Hills **Date:** 6/27/2015

**NOON**

| **NS/EW Streets:** | Doheny Dr | | | Doheny Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 1:00 PM | 26 | 87 | 21 | 15 | 84 | 27 | 37 | 292 | 30 | 17 | 212 | 16 | 864 |
| 1:15 PM | 24 | 81 | 13 | 14 | 86 | 20 | 36 | 275 | 35 | 30 | 248 | 15 | 877 |
| 1:30 PM | 13 | 97 | 16 | 14 | 92 | 20 | 23 | 312 | 18 | 23 | 221 | 19 | 868 |
| 1:45 PM | 23 | 86 | 12 | 12 | 69 | 25 | 27 | 258 | 21 | 22 | 233 | 25 | 813 |
| 2:00 PM | 18 | 78 | 16 | 16 | 109 | 38 | 30 | 275 | 23 | 18 | 225 | 20 | 866 |
| 2:15 PM | 13 | 76 | 17 | 17 | 77 | 32 | 45 | 301 | 16 | 19 | 199 | 14 | 826 |
| 2:30 PM | 12 | 75 | 15 | 23 | 81 | 24 | 41 | 292 | 27 | 11 | 250 | 15 | 866 |
| 2:45 PM | 19 | 71 | 14 | 18 | 92 | 19 | 22 | 264 | 13 | 16 | 243 | 12 | 803 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 148 | 651 | 124 | 129 | 690 | 205 | 261 | 2269 | 183 | 156 | 1831 | 136 | 6783 |
| **APPROACH %'s :** | 16.03% | 70.53% | 13.43% | 12.60% | 67.38% | 20.02% | 9.62% | 83.63% | 6.75% | 7.35% | 86.25% | 6.41% | |

| **PEAK HR START TIME :** | 115 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 | 3424 |
| **PEAK HR FACTOR :** | | 0.946 | | | 0.790 | | | 0.944 | | | 0.938 | | 0.976 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Doheny Dr and Wilshire Blvd , Beverly Hills*

Date: 6/27/2015

Day: Saturday

Project #: 15-5411-001

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | |
| NOON Peak Hour | 115 PM |
| PM Peak Hour | |

Peak Hour Summary

### Southbound Approach

Doheny Dr

| Lanes | 0 | 2 | 1 | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 103 | 356 | 56 | 537 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |

### Eastbound Approach

Wilshire Blvd

| | AM | NOON | PM |
|---|---|---|---|
| | 0 | 1108 | 0 |
| 1 | 0 | 116 | 0 |
| 3 | 0 | 1120 | 0 |
| 0 | 0 | 97 | 0 |
| Lanes | AM | NOON | PM |

### Westbound Approach

| | AM | NOON | PM | Lanes |
|---|---|---|---|---|
| | 0 | 79 | 0 | 0 |
| | 0 | 927 | 0 | 3 |
| | 0 | 93 | 0 | 1 |
| | 0 | 1233 | 0 | |
| | AM | NOON | PM | |

### Northbound Approach

| | | | | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 546 | 78 | 342 | 57 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |
| | | 1 | 1 | 1 | Lanes |

CONTROL

Signalized

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 1:00 PM | 3:00 PM |
| PM | | |

## Total Ins & Outs

| North Leg | | |
|---|---|---|
| 0 | 0 | AM |
| 515 | 537 | NOON |
| 0 | 0 | PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 0 | 1108 | 0 | 0 | 1099 | 0 |
| 0 | 1333 | 0 | 0 | 1233 | 0 |
| | | | AM | NOON | PM |

| South Leg | | |
|---|---|---|
| 0 | 0 | AM |
| 546 | 477 | NOON |
| 0 | 0 | PM |

## Total Volume Per Leg

| North Leg | |
|---|---|
| 0 | AM |
| 1052 | NOON |
| 0 | PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 0 | 2441 | 0 | 0 | 2332 | 0 |
| | | | AM | NOON | PM |

| South Leg | |
|---|---|
| 0 | AM |
| 1023 | NOON |
| 0 | PM |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-002 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**AM**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 7:30 AM | 0 | 0 | 1 | 0 | 0 | 7 | 2 | 189 | 4 | 5 | 428 | 7 | 643 |
| 7:45 AM | 2 | 1 | 3 | 0 | 2 | 5 | 4 | 241 | 4 | 5 | 449 | 14 | 730 |
| 8:00 AM | 1 | 1 | 5 | 1 | 1 | 4 | 9 | 273 | 2 | 5 | 428 | 6 | 736 |
| 8:15 AM | 1 | 2 | 5 | 1 | 0 | 11 | 3 | 269 | 2 | 11 | 467 | 14 | 786 |
| 8:30 AM | 1 | 2 | 3 | 0 | 2 | 11 | 8 | 284 | 4 | 9 | 543 | 13 | 880 |
| 8:45 AM | 3 | 1 | 4 | 1 | 1 | 9 | 2 | 290 | 2 | 14 | 486 | 22 | 835 |
| 9:00 AM | 2 | 3 | 10 | 1 | 1 | 9 | 4 | 292 | 2 | 2 | 443 | 16 | 785 |
| 9:15 AM | 1 | 1 | 7 | 2 | 0 | 5 | 6 | 306 | 5 | 6 | 465 | 9 | 813 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 11 | 11 | 38 | 6 | 7 | 61 | 38 | 2144 | 25 | 57 | 3709 | 101 | 6208 |
| **APPROACH %'s :** | 18.33% | 18.33% | 63.33% | 8.11% | 9.46% | 82.43% | 1.72% | 97.15% | 1.13% | 1.47% | 95.91% | 2.61% | |
| **PEAK HR START TIME :** | 830 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 | 3313 |
| **PEAK HR FACTOR :** | | 0.633 | | | 0.808 | | | 0.950 | | | 0.897 | | 0.941 |

**CONTROL :** 2-Way Stop (NB/SB)

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-002 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**PM**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 4:30 PM | 1 | 1 | 4 | 2 | 0 | 10 | 10 | 462 | 3 | 9 | 310 | 11 | 823 |
| 4:45 PM | 3 | 0 | 7 | 1 | 1 | 10 | 8 | 455 | 3 | 7 | 321 | 9 | 825 |
| 5:00 PM | 3 | 0 | 5 | 0 | 0 | 13 | 10 | 469 | 10 | 6 | 366 | 12 | 894 |
| 5:15 PM | 1 | 2 | 6 | 4 | 0 | 7 | 4 | 473 | 7 | 7 | 369 | 9 | 889 |
| 5:30 PM | 1 | 1 | 12 | 1 | 2 | 10 | 9 | 473 | 6 | 1 | 372 | 5 | 893 |
| 5:45 PM | 2 | 3 | 13 | 1 | 0 | 9 | 7 | 453 | 5 | 5 | 367 | 12 | 877 |
| 6:00 PM | 2 | 1 | 9 | 0 | 2 | 14 | 7 | 480 | 11 | 6 | 373 | 6 | 911 |
| 6:15 PM | 1 | 0 | 10 | 1 | 0 | 12 | 8 | 447 | 5 | 5 | 326 | 7 | 822 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 14 | 8 | 66 | 10 | 5 | 85 | 63 | 3712 | 50 | 46 | 2804 | 71 | 6934 |
| **APPROACH %'s :** | 15.91% | 9.09% | 75.00% | 10.00% | 5.00% | 85.00% | 1.65% | 97.05% | 1.31% | 1.57% | 95.99% | 2.43% | |
| **PEAK HR START TIME :** | 515 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 | 3570 |
| **PEAK HR FACTOR :** | | 0.736 | | | 0.781 | | | 0.971 | | | 0.995 | | 0.980 |

**CONTROL :** 2-Way Stop (NB/SB)

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Almont Dr and Wilshire Blvd , Beverly Hills*

Date: 6/30/2015

Day: Tuesday

Project #: 15-5411-002

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | 830 AM |
| NOON Peak Hour | |
| PM Peak Hour | 515 PM |

### Peak Hour Summary

**Southbound Approach** (Almont Dr)

| Lanes | 0 | 1 | 0 | | |
|---|---|---|---|---|---|
| AM | 34 | 4 | 4 | 87 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 40 | 4 | 6 | 66 | PM |

**Eastbound Approach** (Wilshire Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 1978 | 0 | 1527 |
| 1 | 20 | 0 | 27 |
| 3 | 1172 | 0 | 1879 |
| 0 | 13 | 0 | 29 |

**Westbound Approach**

| Lanes | AM | NOON | PM |
|---|---|---|---|
| 0 | 60 | 0 | 32 |
| 3 | 1937 | 0 | 1481 |
| 1 | 31 | 0 | 19 |
| | 1200 | 0 | 1925 |

**Northbound Approach**

| | | | | | |
|---|---|---|---|---|---|
| AM | 48 | 7 | 7 | 24 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 52 | 6 | 7 | 40 | PM |
| | | 0 | 1 | 0 | Lanes |

**CONTROL**

2-Way Stop (NB/SB)

| Count Periods | Start | End |
|---|---|---|
| AM | 7:30 AM | 9:30 AM |
| NOON | | |
| PM | 4:30 PM | 6:30 PM |

### Total Ins & Outs

| | AM | NOON | PM |
|---|---|---|---|
| North Leg | 42 | 0 | 50 |
| | 87 | 0 | 66 |
| West Leg | 1978 | 0 | 1527 |
| | 1205 | 0 | 1935 |
| East Leg | 2028 | 0 | 1532 |
| | 1200 | 0 | 1925 |
| South Leg | 48 | 0 | 52 |
| | 38 | 0 | 53 |

### Total Volume Per Leg

| | AM | NOON | PM |
|---|---|---|---|
| North Leg | 129 | 0 | 116 |
| West Leg | 3183 | 0 | 3462 |
| East Leg | 3228 | 0 | 3457 |
| South Leg | 86 | 0 | 105 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-002 **Day:** Saturday

**City:** Beverly Hills **Date:** 6/27/2015

**NOON**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 1:00 PM | 0 | 0 | 3 | 1 | 0 | 2 | 5 | 325 | 0 | 5 | 238 | 6 | 585 |
| 1:15 PM | 1 | 0 | 4 | 0 | 1 | 2 | 3 | 291 | 2 | 4 | 279 | 7 | 594 |
| 1:30 PM | 1 | 2 | 2 | 1 | 1 | 5 | 4 | 324 | 8 | 2 | 255 | 2 | 607 |
| 1:45 PM | 1 | 0 | 1 | 0 | 0 | 3 | 5 | 266 | 5 | 3 | 277 | 4 | 565 |
| 2:00 PM | 3 | 1 | 4 | 1 | 0 | 5 | 12 | 284 | 6 | 4 | 241 | 10 | 571 |
| 2:15 PM | 1 | 1 | 2 | 0 | 0 | 5 | 15 | 315 | 5 | 1 | 235 | 3 | 583 |
| 2:30 PM | 0 | 0 | 5 | 1 | 0 | 4 | 10 | 324 | 4 | 1 | 257 | 2 | 608 |
| 2:45 PM | 0 | 0 | 6 | 1 | 0 | 3 | 5 | 294 | 3 | 1 | 263 | 8 | 584 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 7 | 4 | 27 | 5 | 2 | 29 | 59 | 2423 | 33 | 21 | 2045 | 42 | 4697 |
| **APPROACH %'s :** | 18.42% | 10.53% | 71.05% | 13.89% | 5.56% | 80.56% | 2.35% | 96.34% | 1.31% | 1.00% | 97.01% | 1.99% | |

| **PEAK HR START TIME :** | 100 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 | 2351 |
| **PEAK HR FACTOR :** | | 0.750 | | | 0.571 | | | 0.921 | | | 0.933 | | 0.968 |

**CONTROL :** 2-Way Stop (NB/SB)

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Almont Dr and Wilshire Blvd , Beverly Hills*

Date: 6/27/2015

Day: Saturday

Project #: 15-5411-002

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | |
| NOON Peak Hour | 100 PM |
| PM Peak Hour | |

### Peak Hour Summary

**Southbound Approach** (Almont Dr)

| | Lanes 0 | 1 | 0 | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 12 | 2 | 2 | 38 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |

**Eastbound Approach** (Wilshire Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 0 | 1064 | 0 |
| 1 | 0 | 17 | 0 |
| 3 | 0 | 1206 | 0 |
| 0 | 0 | 15 | 0 |

**Westbound Approach**

| AM | NOON | PM | Lanes |
|---|---|---|---|
| 0 | 19 | 0 | 0 |
| 0 | 1049 | 0 | 3 |
| 0 | 14 | 0 | 1 |
| 0 | 1218 | 0 | |

**Northbound Approach**

| | | | | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 31 | 3 | 2 | 10 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |
| | | 0 | 1 | 0 | Lanes |

**CONTROL**

2-Way Stop (NB/SB)

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 1:00 PM | 3:00 PM |
| PM | | |

### Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| | 0 | 0 | AM |
| | 16 | 38 | NOON |
| | 0 | 0 | PM |

| West Leg AM | NOON | PM | East Leg AM | NOON | PM |
|---|---|---|---|---|---|
| 0 | 1064 | 0 | 0 | 1082 | 0 |
| 0 | 1238 | 0 | 0 | 1218 | 0 |

| | South Leg | |
|---|---|---|
| AM | 0 | 0 |
| NOON | 31 | 15 |
| PM | 0 | 0 |

### Total Volume Per Leg

| | North Leg |
|---|---|
| AM | 0 |
| NOON | 54 |
| PM | 0 |

| West Leg AM | NOON | PM | East Leg AM | NOON | PM |
|---|---|---|---|---|---|
| 0 | 2302 | 0 | 0 | 2300 | 0 |

| | South Leg |
|---|---|
| AM | 0 |
| NOON | 46 |
| PM | 0 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-003 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**AM**

| **NS/EW Streets:** | La Peer Dr | | | La Peer Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 7:30 AM | 6 | 13 | 4 | 10 | 10 | 7 | 1 | 182 | 7 | 9 | 423 | 5 | 677 |
| 7:45 AM | 13 | 20 | 6 | 5 | 17 | 13 | 6 | 227 | 8 | 9 | 451 | 10 | 785 |
| 8:00 AM | 5 | 16 | 9 | 12 | 16 | 11 | 5 | 270 | 7 | 11 | 414 | 11 | 787 |
| 8:15 AM | 11 | 16 | 12 | 7 | 28 | 15 | 3 | 260 | 10 | 15 | 478 | 10 | 865 |
| 8:30 AM | 18 | 39 | 11 | 14 | 34 | 13 | 11 | 269 | 9 | 9 | 524 | 12 | 963 |
| 8:45 AM | 15 | 37 | 6 | 13 | 45 | 15 | 3 | 283 | 7 | 17 | 493 | 10 | 944 |
| 9:00 AM | 12 | 37 | 10 | 16 | 37 | 14 | 8 | 285 | 12 | 10 | 434 | 15 | 890 |
| 9:15 AM | 12 | 18 | 10 | 9 | 24 | 28 | 4 | 298 | 11 | 15 | 442 | 13 | 884 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 92 | 196 | 68 | 86 | 211 | 116 | 41 | 2074 | 71 | 95 | 3659 | 86 | 6795 |
| **APPROACH %'s :** | 25.84% | 55.06% | 19.10% | 20.82% | 51.09% | 28.09% | 1.88% | 94.88% | 3.25% | 2.47% | 95.29% | 2.24% | |
| **PEAK HR START TIME :** | 830 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 | 3681 |
| **PEAK HR FACTOR :** | | 0.827 | | | 0.897 | | | 0.958 | | | 0.915 | | 0.956 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-003 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**PM**

| **NS/EW Streets:** | La Peer Dr | | | La Peer Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 4:30 PM | 12 | 26 | 9 | 13 | 36 | 7 | 7 | 456 | 8 | 10 | 304 | 6 | 894 |
| 4:45 PM | 11 | 24 | 18 | 8 | 22 | 5 | 7 | 442 | 11 | 7 | 327 | 7 | 889 |
| 5:00 PM | 12 | 32 | 14 | 9 | 47 | 10 | 11 | 462 | 4 | 8 | 356 | 7 | 972 |
| 5:15 PM | 19 | 30 | 10 | 12 | 56 | 11 | 8 | 465 | 6 | 9 | 358 | 10 | 994 |
| 5:30 PM | 14 | 32 | 18 | 8 | 43 | 8 | 9 | 478 | 3 | 7 | 352 | 5 | 977 |
| 5:45 PM | 11 | 30 | 16 | 5 | 34 | 13 | 12 | 445 | 7 | 10 | 362 | 5 | 950 |
| 6:00 PM | 10 | 39 | 8 | 9 | 27 | 11 | 7 | 480 | 5 | 13 | 362 | 10 | 981 |
| 6:15 PM | 9 | 23 | 10 | 13 | 31 | 5 | 8 | 444 | 4 | 8 | 329 | 7 | 891 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 98 | 236 | 103 | 77 | 296 | 70 | 69 | 3672 | 48 | 72 | 2750 | 57 | 7548 |
| **APPROACH %'s :** | 22.43% | 54.00% | 23.57% | 17.38% | 66.82% | 15.80% | 1.82% | 96.91% | 1.27% | 2.50% | 95.52% | 1.98% | |

| **PEAK HR START TIME :** | 515 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 | 3902 |
| **PEAK HR FACTOR :** | | 0.926 | | | 0.750 | | | 0.978 | | | 0.976 | | 0.981 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *La Peer Dr and Wilshire Blvd , Beverly Hills*

Date: 6/30/2015

Day: Tuesday

Project #: 15-5411-003

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | 830 AM |
| NOON Peak Hour | |
| PM Peak Hour | 515 PM |

### Peak Hour Summary

**Southbound Approach** (La Peer Dr)

| Lanes | 0 | 1 | 1 | | |
|---|---|---|---|---|---|
| AM | 70 | 140 | 52 | 207 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 43 | 160 | 34 | 197 | PM |

**Eastbound Approach** (Wilshire Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 2020 | 0 | 1531 |
| 1 | 26 | 0 | 36 |
| 3 | 1135 | 0 | 1868 |
| 0 | 39 | 0 | 21 |

**Westbound Approach**

| AM | NOON | PM | Lanes |
|---|---|---|---|
| 50 | 0 | 30 | 0 |
| 1893 | 0 | 1434 | 3 |
| 51 | 0 | 39 | 1 |
| 1224 | 0 | 1954 | |

**Northbound Approach**

| | | | | |
|---|---|---|---|---|
| AM | 230 | 57 | 131 | 37 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 220 | 54 | 131 | 52 | PM |
| Lanes | | 1 | 1 | 0 | Lanes |

**CONTROL**

Signalized

| Count Periods | Start | End |
|---|---|---|
| AM | 7:30 AM | 9:30 AM |
| NOON | | |
| PM | 4:30 PM | 6:30 PM |

## Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| | 262 | 207 | AM |
| | 0 | 0 | NOON |
| | 237 | 197 | PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 2020 | 0 | 1531 | 1994 | 0 | 1503 |
| 1200 | 0 | 1925 | 1224 | 0 | 1954 |
| | | | AM | NOON | PM |

| | South Leg | |
|---|---|---|
| AM | 230 | 225 |
| NOON | 0 | 0 |
| PM | 220 | 237 |

## Total Volume Per Leg

| | North Leg |
|---|---|
| | 469 AM |
| | 0 NOON |
| | 434 PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 3220 | 0 | 3456 | 3218 | 0 | 3457 |
| | | | AM | NOON | PM |

| | South Leg |
|---|---|
| AM | 455 |
| NOON | 0 |
| PM | 457 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-003 **Day:** Saturday

**City:** Beverly Hills **Date:** 6/27/2015

**NOON**

| **NS/EW Streets:** | La Peer Dr | | | La Peer Dr | | | Wilshire Blvd | | | Wilshire Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | |
| 1:00 PM | 6 | 6 | 5 | 7 | 12 | 4 | 6 | 321 | 6 | 5 | 234 | 3 | 615 |
| 1:15 PM | 8 | 9 | 5 | 6 | 9 | 6 | 4 | 283 | 6 | 1 | 270 | 5 | 612 |
| 1:30 PM | 10 | 13 | 7 | 5 | 13 | 10 | 5 | 317 | 4 | 1 | 241 | 5 | 631 |
| 1:45 PM | 4 | 11 | 8 | 7 | 12 | 7 | 2 | 264 | 4 | 4 | 282 | 5 | 610 |
| 2:00 PM | 6 | 10 | 9 | 4 | 10 | 8 | 5 | 279 | 3 | 3 | 239 | 3 | 579 |
| 2:15 PM | 4 | 12 | 3 | 2 | 11 | 7 | 5 | 306 | 7 | 3 | 230 | 4 | 594 |
| 2:30 PM | 7 | 9 | 4 | 3 | 11 | 7 | 5 | 316 | 7 | 5 | 244 | 3 | 621 |
| 2:45 PM | 4 | 5 | 5 | 1 | 8 | 3 | 7 | 291 | 5 | 9 | 262 | 1 | 601 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 49 | 75 | 46 | 35 | 86 | 52 | 39 | 2377 | 42 | 31 | 2002 | 29 | 4863 |
| **APPROACH %'s :** | 28.82% | 44.12% | 27.06% | 20.23% | 49.71% | 30.06% | 1.59% | 96.70% | 1.71% | 1.50% | 97.09% | 1.41% | |
| **PEAK HR START TIME :** | 100 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 | 2468 |
| **PEAK HR FACTOR :** | | 0.767 | | | 0.875 | | | 0.917 | | | 0.907 | | 0.978 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *La Peer Dr and Wilshire Blvd , Beverly Hills*

Date: 6/27/2015

Day: Saturday

Project #: 15-5411-003

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | |
| NOON Peak Hour | 100 PM |
| PM Peak Hour | |

### Peak Hour Summary

**Southbound Approach** (La Peer Dr)

| Lanes | 0 | 1 | 1 | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 27 | 46 | 25 | 74 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |

**Eastbound Approach** (Wilshire Blvd)

| | AM | NOON | PM |
|---|---|---|---|
| | 0 | 1082 | 0 |
| 1 | 0 | 17 | 0 |
| 3 | 0 | 1185 | 0 |
| 0 | 0 | 20 | 0 |
| Lanes | AM | NOON | PM |

**Westbound Approach**

| | AM | NOON | PM | Lanes |
|---|---|---|---|---|
| | 0 | 18 | 0 | 0 |
| | 0 | 1027 | 0 | 3 |
| | 0 | 11 | 0 | 1 |
| | 0 | 1235 | 0 | |
| | AM | NOON | PM | |

**CONTROL**

Signalized

**Northbound Approach**

| | | | | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 77 | 28 | 39 | 25 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |
| | | 1 | 1 | 0 | Lanes |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 1:00 PM | 3:00 PM |
| PM | | |

### Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| | 0 | 0 | AM |
| | 98 | 74 | NOON |
| | 0 | 0 | PM |

| West Leg | | | | East Leg | | |
|---|---|---|---|---|---|---|
| AM | NOON | PM | | | | |
| 0 | 1082 | 0 | | 0 | 1056 | 0 |
| 0 | 1222 | 0 | | 0 | 1235 | 0 |
| | | | | AM | NOON | PM |

| | South Leg | |
|---|---|---|
| AM | 0 | 0 |
| NOON | 77 | 92 |
| PM | 0 | 0 |

### Total Volume Per Leg

| | North Leg |
|---|---|
| AM | 0 |
| NOON | 172 |
| PM | 0 |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 0 | 2304 | 0 | 0 | 2291 | 0 |
| | | | AM | NOON | PM |

| | South Leg |
|---|---|
| AM | 0 |
| NOON | 169 |
| PM | 0 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-004 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**AM**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Charleville Blvd | | | Charleville Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 7:30 AM | 2 | 4 | 0 | 0 | 2 | 0 | 2 | 7 | 0 | 1 | 15 | 0 | 33 |
| 7:45 AM | 7 | 6 | 1 | 1 | 1 | 0 | 1 | 10 | 0 | 1 | 20 | 1 | 49 |
| 8:00 AM | 2 | 3 | 2 | 1 | 3 | 0 | 2 | 13 | 0 | 2 | 25 | 1 | 54 |
| 8:15 AM | 1 | 5 | 2 | 1 | 4 | 3 | 3 | 17 | 1 | 2 | 52 | 2 | 93 |
| 8:30 AM | 3 | 8 | 3 | 3 | 6 | 1 | 4 | 20 | 0 | 0 | 61 | 1 | 110 |
| 8:45 AM | 1 | 7 | 0 | 0 | 6 | 8 | 4 | 14 | 0 | 1 | 66 | 0 | 107 |
| 9:00 AM | 6 | 9 | 3 | 2 | 3 | 1 | 8 | 12 | 1 | 2 | 45 | 2 | 94 |
| 9:15 AM | 3 | 6 | 1 | 0 | 0 | 5 | 5 | 23 | 1 | 1 | 30 | 3 | 78 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 25 | 48 | 12 | 8 | 25 | 18 | 29 | 116 | 3 | 10 | 314 | 10 | 618 |
| **APPROACH %'s :** | 29.41% | 56.47% | 14.12% | 15.69% | 49.02% | 35.29% | 19.59% | 78.38% | 2.03% | 2.99% | 94.01% | 2.99% | |
| **PEAK HR START TIME :** | 815 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 | 404 |
| **PEAK HR FACTOR :** | | 0.667 | | | 0.679 | | | 0.875 | | | 0.873 | | 0.918 |

**CONTROL :** 4-Way Stop

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-004 **Day:** Tuesday

**City:** Beverly Hills **Date:** 6/30/2015

**PM**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Charleville Blvd | | | Charleville Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 4:30 PM | 1 | 8 | 1 | 1 | 2 | 3 | 7 | 49 | 3 | 4 | 21 | 1 | 101 |
| 4:45 PM | 2 | 7 | 3 | 2 | 4 | 3 | 4 | 49 | 1 | 1 | 32 | 1 | 109 |
| 5:00 PM | 2 | 5 | 1 | 0 | 9 | 4 | 3 | 59 | 5 | 2 | 40 | 0 | 130 |
| 5:15 PM | 2 | 8 | 1 | 2 | 6 | 3 | 1 | 72 | 1 | 3 | 33 | 1 | 133 |
| 5:30 PM | 0 | 7 | 2 | 0 | 3 | 3 | 6 | 79 | 0 | 3 | 26 | 1 | 130 |
| 5:45 PM | 0 | 12 | 5 | 1 | 4 | 3 | 6 | 68 | 1 | 1 | 24 | 0 | 125 |
| 6:00 PM | 1 | 7 | 3 | 3 | 7 | 5 | 3 | 74 | 0 | 1 | 25 | 0 | 129 |
| 6:15 PM | 1 | 7 | 5 | 2 | 6 | 4 | 3 | 59 | 1 | 3 | 18 | 5 | 114 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 9 | 61 | 21 | 11 | 41 | 28 | 33 | 509 | 12 | 18 | 219 | 9 | 971 |
| **APPROACH %'s :** | 9.89% | 67.03% | 23.08% | 13.75% | 51.25% | 35.00% | 5.96% | 91.88% | 2.17% | 7.32% | 89.02% | 3.66% | |
| **PEAK HR START TIME :** | 500 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 | 518 |
| **PEAK HR FACTOR :** | | 0.662 | | | 0.731 | | | 0.885 | | | 0.798 | | 0.974 |

**CONTROL :** 4-Way Stop

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Almont Dr and Charleville Blvd , Beverly Hills*

Date: 6/30/2015

Day: Tuesday

Project #: 15-5411-004

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | 815 AM |
| NOON Peak Hour | |
| PM Peak Hour | 500 PM |

### Peak Hour Summary

**Southbound Approach** (Almont Dr)

| Lanes | 0 | 1 | 0 | | |
|---|---|---|---|---|---|
| AM | 13 | 19 | 6 | 53 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 13 | 22 | 3 | 50 | PM |

**Eastbound Approach** (Charleville Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 248 | 0 | 140 |
| 0 | 19 | 0 | 16 |
| 1 | 63 | 0 | 278 |
| 0 | 2 | 0 | 7 |

**Westbound Approach**

| AM | NOON | PM | Lanes |
|---|---|---|---|
| 5 | 0 | 2 | 0 |
| 224 | 0 | 123 | 1 |
| 5 | 0 | 9 | 0 |
| 77 | 0 | 290 | |

**Northbound Approach**

| | | | | |
|---|---|---|---|---|
| AM | 26 | 11 | 29 | 8 | AM |
| NOON | 0 | 0 | 0 | 0 | NOON |
| PM | 38 | 4 | 32 | 9 | PM |
| Lanes | | 0 | 1 | 0 | Lanes |

**CONTROL**

4-Way Stop

| Count Periods | Start | End |
|---|---|---|
| AM | 7:30 AM | 9:30 AM |
| NOON | | |
| PM | 4:30 PM | 6:30 PM |

## Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| | 38 | 53 | AM |
| | 0 | 0 | NOON |
| | 38 | 50 | PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 248 | 0 | 140 | 234 | 0 | 134 |
| 84 | 0 | 301 | 77 | 0 | 290 |
| | | | AM | NOON | PM |

| | South Leg | |
|---|---|---|
| AM | 26 | 48 |
| NOON | 0 | 0 |
| PM | 38 | 45 |

## Total Volume Per Leg

| | North Leg |
|---|---|
| AM | 91 |
| NOON | 0 |
| PM | 88 |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | | | |
| 332 | 0 | 441 | 311 | 0 | 424 |
| | | | AM | NOON | PM |

| | South Leg |
|---|---|
| AM | 74 |
| NOON | 0 |
| PM | 83 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** 15-5411-004 **Day:** Saturday

**City:** Beverly Hills **Date:** 6/27/2015

**NOON**

| **NS/EW Streets:** | Almont Dr | | | Almont Dr | | | Charleville Blvd | | | Charleville Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 1:00 PM | 5 | 2 | 1 | 0 | 4 | 3 | 2 | 12 | 2 | 1 | 18 | 3 | 53 |
| 1:15 PM | 0 | 5 | 2 | 1 | 5 | 1 | 3 | 19 | 1 | 0 | 20 | 1 | 58 |
| 1:30 PM | 2 | 3 | 0 | 1 | 5 | 3 | 2 | 14 | 1 | 0 | 11 | 1 | 43 |
| 1:45 PM | 1 | 4 | 0 | 2 | 5 | 1 | 2 | 19 | 1 | 0 | 17 | 0 | 52 |
| 2:00 PM | 3 | 1 | 0 | 0 | 1 | 3 | 4 | 14 | 3 | 2 | 13 | 0 | 44 |
| 2:15 PM | 0 | 2 | 0 | 1 | 3 | 1 | 3 | 13 | 1 | 2 | 10 | 0 | 36 |
| 2:30 PM | 3 | 3 | 1 | 2 | 2 | 0 | 3 | 10 | 2 | 0 | 13 | 0 | 39 |
| 2:45 PM | 2 | 4 | 1 | 1 | 0 | 2 | 1 | 17 | 0 | 0 | 13 | 2 | 43 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 16 | 24 | 5 | 8 | 25 | 14 | 20 | 118 | 11 | 5 | 115 | 7 | 368 |
| **APPROACH %'s :** | 35.56% | 53.33% | 11.11% | 17.02% | 53.19% | 29.79% | 13.42% | 79.19% | 7.38% | 3.94% | 90.55% | 5.51% | |
| **PEAK HR START TIME :** | 100 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 | 206 |
| **PEAK HR FACTOR :** | | 0.781 | | | 0.861 | | | 0.848 | | | 0.818 | | 0.888 |

**CONTROL :** 4-Way Stop

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

## *Almont Dr and Charleville Blvd , Beverly Hills*

Date: 6/27/2015

Day: Saturday

Project #: 15-5411-004

City: Beverly Hills

| | |
|---|---|
| AM Peak Hour | |
| NOON Peak Hour | 100 PM |
| PM Peak Hour | |

### Peak Hour Summary

**Southbound Approach** (Almont Dr)

| Lanes | 0 | 1 | 0 | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 8 | 19 | 4 | 28 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |

**Eastbound Approach** (Charleville Blvd)

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 0 | 82 | 0 |
| 0 | 0 | 9 | 0 |
| 1 | 0 | 64 | 0 |
| 0 | 0 | 5 | 0 |

**Westbound Approach**

| AM | NOON | PM | Lanes |
|---|---|---|---|
| 0 | 5 | 0 | 0 |
| 0 | 66 | 0 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 71 | 0 | |

**Northbound Approach**

| | | | | |
|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 25 | 8 | 14 | 3 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |
| | | 0 | 1 | 0 | Lanes |

**CONTROL**: 4-Way Stop

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 1:00 PM | 3:00 PM |
| PM | | |

### Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| AM | 0 | 0 | AM |
| NOON | 31 | 28 | NOON |
| PM | 0 | 0 | PM |

| West Leg | AM | NOON | PM |
|---|---|---|---|
| | 0 | 82 | 0 |
| | 0 | 78 | 0 |

| East Leg | AM | NOON | PM |
|---|---|---|---|
| | 0 | 72 | 0 |
| | 0 | 71 | 0 |

| | South Leg | |
|---|---|---|
| AM | 0 | 0 |
| NOON | 25 | 25 |
| PM | 0 | 0 |

### Total Volume Per Leg

| North Leg | |
|---|---|
| 0 | AM |
| 59 | NOON |
| 0 | PM |

| West Leg | AM | NOON | PM |
|---|---|---|---|
| | 0 | 160 | 0 |

| East Leg | AM | NOON | PM |
|---|---|---|---|
| | 0 | 143 | 0 |

| | South Leg |
|---|---|
| AM | 0 |
| NOON | 50 |
| PM | 0 |

Prepared by NDS/ATD

# VOLUME

Almont Dr Bet. Alley S/O Wilshire Blvd & Charleville Blvd

**Day:** Saturday
**Date:** 6/27/2015

**City:** Beverly Hills
**Project #:** CA15_5412_001

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 331 | 331 | 0 | 0 | 662 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 1 | | 1 | | | | | | 2 | | 12:00 | 7 | | 7 | | | | | | 14 | |
| 00:15 | 0 | | 2 | | | | | | 2 | | 12:15 | 8 | | 3 | | | | | | 11 | |
| 00:30 | 1 | | 0 | | | | | | 1 | | 12:30 | 10 | | 12 | | | | | | 22 | |
| 00:45 | 1 | 3 | 3 | 6 | | | | | 4 | 9 | 12:45 | 6 | 31 | 3 | 25 | | | | | 9 | 56 |
| 01:00 | 0 | | 1 | | | | | | 1 | | 13:00 | 8 | | 6 | | | | | | 14 | |
| 01:15 | 1 | | 4 | | | | | | 5 | | 13:15 | 9 | | 7 | | | | | | 16 | |
| 01:30 | 1 | | 0 | | | | | | 1 | | 13:30 | 5 | | 10 | | | | | | 15 | |
| 01:45 | 0 | 2 | 1 | 6 | | | | | 1 | 8 | 13:45 | 7 | 29 | 7 | 30 | | | | | 14 | 59 |
| 02:00 | 1 | | 1 | | | | | | 2 | | 14:00 | 5 | | 5 | | | | | | 10 | |
| 02:15 | 0 | | 1 | | | | | | 1 | | 14:15 | 4 | | 4 | | | | | | 8 | |
| 02:30 | 0 | | 2 | | | | | | 2 | | 14:30 | 5 | | 5 | | | | | | 10 | |
| 02:45 | 0 | 1 | 1 | 5 | | | | | 1 | 6 | 14:45 | 7 | 21 | 2 | 16 | | | | | 9 | 37 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 6 | | 5 | | | | | | 11 | |
| 03:15 | 0 | | 1 | | | | | | 1 | | 15:15 | 5 | | 2 | | | | | | 7 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 5 | | 7 | | | | | | 12 | |
| 03:45 | 0 | | 0 | 1 | | | | | 0 | 1 | 15:45 | 2 | 18 | 10 | 24 | | | | | 12 | 42 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 4 | | 9 | | | | | | 13 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 4 | | 7 | | | | | | 11 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 4 | | 6 | | | | | | 10 | |
| 04:45 | 0 | | 0 | | | | | | 0 | | 16:45 | 10 | 22 | 8 | 30 | | | | | 18 | 52 |
| 05:00 | 0 | | 0 | | | | | | 0 | | 17:00 | 4 | | 11 | | | | | | 15 | |
| 05:15 | 0 | | 0 | | | | | | 0 | | 17:15 | 5 | | 9 | | | | | | 14 | |
| 05:30 | 2 | | 1 | | | | | | 3 | | 17:30 | 6 | | 4 | | | | | | 10 | |
| 05:45 | 0 | 2 | 0 | 1 | | | | | 0 | 3 | 17:45 | 5 | 20 | 2 | 26 | | | | | 7 | 46 |
| 06:00 | 1 | | 1 | | | | | | 2 | | 18:00 | 7 | | 6 | | | | | | 13 | |
| 06:15 | 2 | | 0 | | | | | | 2 | | 18:15 | 2 | | 4 | | | | | | 6 | |
| 06:30 | 2 | | 0 | | | | | | 2 | | 18:30 | 1 | | 4 | | | | | | 5 | |
| 06:45 | 0 | 5 | 3 | 4 | | | | | 3 | 9 | 18:45 | 6 | 16 | 9 | 23 | | | | | 15 | 39 |
| 07:00 | 1 | | 1 | | | | | | 2 | | 19:00 | 7 | | 5 | | | | | | 12 | |
| 07:15 | 3 | | 0 | | | | | | 3 | | 19:15 | 4 | | 7 | | | | | | 11 | |
| 07:30 | 1 | | 0 | | | | | | 1 | | 19:30 | 6 | | 2 | | | | | | 8 | |
| 07:45 | 4 | 9 | 1 | 2 | | | | | 5 | 11 | 19:45 | 1 | 18 | 6 | 20 | | | | | 7 | 38 |
| 08:00 | 1 | | 1 | | | | | | 2 | | 20:00 | 3 | | 3 | | | | | | 6 | |
| 08:15 | 3 | | 2 | | | | | | 5 | | 20:15 | 2 | | 5 | | | | | | 7 | |
| 08:30 | 10 | | 0 | | | | | | 10 | | 20:30 | 1 | | 3 | | | | | | 4 | |
| 08:45 | 3 | 17 | 2 | 5 | | | | | 5 | 22 | 20:45 | 1 | 7 | 1 | 12 | | | | | 2 | 19 |
| 09:00 | 4 | | 0 | | | | | | 4 | | 21:00 | 0 | | 9 | | | | | | 9 | |
| 09:15 | 8 | | 2 | | | | | | 10 | | 21:15 | 4 | | 9 | | | | | | 13 | |
| 09:30 | 4 | | 4 | | | | | | 8 | | 21:30 | 2 | | 5 | | | | | | 7 | |
| 09:45 | 4 | 20 | 2 | 8 | | | | | 6 | 28 | 21:45 | 1 | 7 | 2 | 25 | | | | | 3 | 32 |
| 10:00 | 4 | | 5 | | | | | | 9 | | 22:00 | 3 | | 3 | | | | | | 6 | |
| 10:15 | 10 | | 4 | | | | | | 14 | | 22:15 | 3 | | 2 | | | | | | 5 | |
| 10:30 | 13 | | 4 | | | | | | 17 | | 22:30 | 3 | | 3 | | | | | | 6 | |
| 10:45 | 8 | 35 | 4 | 17 | | | | | 12 | 52 | 22:45 | 2 | 11 | 1 | 9 | | | | | 3 | 20 |
| 11:00 | 6 | | 4 | | | | | | 10 | | 23:00 | 3 | | 4 | | | | | | 7 | |
| 11:15 | 7 | | 7 | | | | | | 14 | | 23:15 | 2 | | 1 | | | | | | 3 | |
| 11:30 | 9 | | 9 | | | | | | 18 | | 23:30 | 0 | | 2 | | | | | | 2 | |
| 11:45 | 10 | 32 | 6 | 26 | | | | | 16 | 58 | 23:45 | 0 | 5 | 3 | 10 | | | | | 3 | 15 |
| **TOTALS** | | 126 | | 81 | | | | | | **207** | **TOTALS** | | 205 | | 250 | | | | | | **455** |
| **SPLIT %** | | 60.9% | | 39.1% | | | | | | **31.3%** | **SPLIT %** | | 45.1% | | 54.9% | | | | | | **68.7%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 331 | 331 | 0 | 0 | 662 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | 10:15 | 11:15 | | | **11:45** | **PM Peak Hour** | 12:30 | 16:30 | | | **12:30** |
| **AM Pk Volume** | 37 | 29 | | | **63** | **PM Pk Volume** | 33 | 34 | | | **61** |
| **Pk Hr Factor** | 0.712 | 0.806 | | | **0.716** | **Pk Hr Factor** | 0.825 | 0.773 | | | **0.693** |
| **7 - 9 Volume** | 26 | 7 | 0 | 0 | **33** | **4 - 6 Volume** | 42 | 56 | 0 | 0 | **98** |
| **7 - 9 Peak Hour** | 07:45 | 08:00 | | | **07:45** | **4 - 6 Peak Hour** | 16:45 | 16:30 | | | **16:30** |
| **7 - 9 Pk Volume** | 18 | 5 | 0 | 0 | **22** | **4 - 6 Pk Volume** | 25 | 34 | 0 | 0 | **57** |
| **Pk Hr Factor** | 0.450 | 0.625 | 0.000 | 0.000 | **0.550** | **Pk Hr Factor** | 0.625 | 0.773 | 0.000 | 0.000 | **0.792** |

Prepared by NDS/ATD

# VOLUME

Almont Dr Bet. Alley S/O Wilshire Blvd & Charleville Blvd

**Day:** Tuesday
**Date:** 6/30/2015

**City:** Beverly Hills
**Project #:** CA15_5412_001

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 622 | 517 | 0 | 0 | 1,139 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 1 | | 4 | | | | | | 5 | | 12:00 | 10 | | 7 | | | | | | 17 | |
| 00:15 | 1 | | 1 | | | | | | 2 | | 12:15 | 9 | | 8 | | | | | | 17 | |
| 00:30 | 2 | | 1 | | | | | | 3 | | 12:30 | 6 | | 6 | | | | | | 12 | |
| 00:45 | 3 | 7 | 0 | 6 | | | | | 3 | 13 | 12:45 | 14 | 39 | 16 | 37 | | | | | 30 | 76 |
| 01:00 | 0 | | 2 | | | | | | 2 | | 13:00 | 10 | | 9 | | | | | | 19 | |
| 01:15 | 0 | | 1 | | | | | | 1 | | 13:15 | 6 | | 7 | | | | | | 13 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 12 | | 10 | | | | | | 22 | |
| 01:45 | 0 | | 0 | 3 | | | | | 0 | 3 | 13:45 | 10 | 38 | 4 | 30 | | | | | 14 | 68 |
| 02:00 | 0 | | 1 | | | | | | 1 | | 14:00 | 11 | | 17 | | | | | | 28 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 7 | | 13 | | | | | | 20 | |
| 02:30 | 0 | | 0 | | | | | | 0 | | 14:30 | 10 | | 11 | | | | | | 21 | |
| 02:45 | 0 | | 1 | 2 | | | | | 1 | 2 | 14:45 | 6 | 34 | 7 | 48 | | | | | 13 | 82 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 14 | | 6 | | | | | | 20 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 10 | | 4 | | | | | | 14 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 9 | | 10 | | | | | | 19 | |
| 03:45 | 0 | | 0 | | | | | | 0 | | 15:45 | 15 | 48 | 14 | 34 | | | | | 29 | 82 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 10 | | 11 | | | | | | 21 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 11 | | 7 | | | | | | 18 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 17 | | 5 | | | | | | 22 | |
| 04:45 | 2 | 2 | 0 | | | | | | 2 | 2 | 16:45 | 11 | 49 | 10 | 33 | | | | | 21 | 82 |
| 05:00 | 0 | | 0 | | | | | | 0 | | 17:00 | 9 | | 12 | | | | | | 21 | |
| 05:15 | 0 | | 1 | | | | | | 1 | | 17:15 | 8 | | 12 | | | | | | 20 | |
| 05:30 | 0 | | 0 | | | | | | 0 | | 17:30 | 16 | | 5 | | | | | | 21 | |
| 05:45 | 2 | 2 | 0 | 1 | | | | | 2 | 3 | 17:45 | 18 | 51 | 9 | 38 | | | | | 27 | 89 |
| 06:00 | 3 | | 0 | | | | | | 3 | | 18:00 | 10 | | 14 | | | | | | 24 | |
| 06:15 | 4 | | 0 | | | | | | 4 | | 18:15 | 12 | | 13 | | | | | | 25 | |
| 06:30 | 2 | | 0 | | | | | | 2 | | 18:30 | 19 | | 17 | | | | | | 36 | |
| 06:45 | 8 | 17 | 2 | 2 | | | | | 10 | 19 | 18:45 | 12 | 53 | 9 | 53 | | | | | 21 | 106 |
| 07:00 | 7 | | 2 | | | | | | 9 | | 19:00 | 9 | | 9 | | | | | | 18 | |
| 07:15 | 5 | | 3 | | | | | | 8 | | 19:15 | 6 | | 6 | | | | | | 12 | |
| 07:30 | 6 | | 3 | | | | | | 9 | | 19:30 | 3 | | 5 | | | | | | 8 | |
| 07:45 | 7 | 25 | 2 | 10 | | | | | 9 | 35 | 19:45 | 3 | 21 | 5 | 25 | | | | | 8 | 46 |
| 08:00 | 7 | | 5 | | | | | | 12 | | 20:00 | 6 | | 5 | | | | | | 11 | |
| 08:15 | 10 | | 7 | | | | | | 17 | | 20:15 | 5 | | 7 | | | | | | 12 | |
| 08:30 | 13 | | 10 | | | | | | 23 | | 20:30 | 4 | | 6 | | | | | | 10 | |
| 08:45 | 11 | 41 | 15 | 37 | | | | | 26 | 78 | 20:45 | 2 | 17 | 10 | 28 | | | | | 12 | 45 |
| 09:00 | 19 | | 5 | | | | | | 24 | | 21:00 | 4 | | 7 | | | | | | 11 | |
| 09:15 | 13 | | 7 | | | | | | 20 | | 21:15 | 5 | | 8 | | | | | | 13 | |
| 09:30 | 17 | | 5 | | | | | | 22 | | 21:30 | 0 | | 1 | | | | | | 1 | |
| 09:45 | 11 | 60 | 9 | 26 | | | | | 20 | 86 | 21:45 | 2 | 11 | 6 | 22 | | | | | 8 | 33 |
| 10:00 | 17 | | 9 | | | | | | 26 | | 22:00 | 1 | | 5 | | | | | | 6 | |
| 10:15 | 12 | | 9 | | | | | | 21 | | 22:15 | 1 | | 2 | | | | | | 3 | |
| 10:30 | 20 | | 16 | | | | | | 36 | | 22:30 | 2 | | 2 | | | | | | 4 | |
| 10:45 | 17 | 66 | 3 | 37 | | | | | 20 | 103 | 22:45 | 1 | 5 | 2 | 11 | | | | | 3 | 16 |
| 11:00 | 6 | | 8 | | | | | | 14 | | 23:00 | 1 | | 0 | | | | | | 1 | |
| 11:15 | 8 | | 5 | | | | | | 13 | | 23:15 | 2 | | 5 | | | | | | 7 | |
| 11:30 | 9 | | 8 | | | | | | 17 | | 23:30 | 2 | | 3 | | | | | | 5 | |
| 11:45 | 8 | 31 | 5 | 26 | | | | | 13 | 57 | 23:45 | 0 | 5 | 0 | 8 | | | | | 0 | 13 |
| **TOTALS** | | 251 | | 150 | | | | | | **401** | **TOTALS** | | 371 | | 367 | | | | | | **738** |
| **SPLIT %** | | 62.6% | | 37.4% | | | | | | **35.2%** | **SPLIT %** | | 50.3% | | 49.7% | | | | | | **64.8%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 622 | 517 | 0 | 0 | 1,139 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | 10:00 | 09:45 | | | **09:45** | **PM Peak Hour** | 17:45 | 17:45 | | | **17:45** |
| **AM Pk Volume** | 66 | 43 | | | **103** | **PM Pk Volume** | 59 | 53 | | | **112** |
| **Pk Hr Factor** | 0.825 | 0.672 | | | **0.715** | **Pk Hr Factor** | 0.776 | 0.779 | | | **0.778** |
| **7 - 9 Volume** | 66 | 47 | 0 | 0 | **113** | **4 - 6 Volume** | 100 | 71 | 0 | 0 | **171** |
| **7 - 9 Peak Hour** | 08:00 | 08:00 | | | **08:00** | **4 - 6 Peak Hour** | 17:00 | 16:30 | | | **17:00** |
| **7 - 9 Pk Volume** | 41 | 37 | 0 | 0 | **78** | **4 - 6 Pk Volume** | 51 | 39 | 0 | 0 | **89** |
| **Pk Hr Factor** | 0.788 | 0.617 | 0.000 | 0.000 | **0.750** | **Pk Hr Factor** | 0.708 | 0.813 | 0.000 | 0.000 | **0.824** |

Prepared by NDS/ATD

# VOLUME

Almont Dr Bet. Charleville Blvd & Gregory Wy

**Day:** Saturday
**Date:** 6/27/2015

**City:** Beverly Hills
**Project #:** CA15_5412_002

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 288 | 285 | 0 | 0 | 573 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 1 | | | | | | 1 | | 12:00 | 8 | | 6 | | | | | | 14 | |
| 00:15 | 0 | | 0 | | | | | | 0 | | 12:15 | 12 | | 1 | | | | | | 13 | |
| 00:30 | 1 | | 0 | | | | | | 1 | | 12:30 | 6 | | 6 | | | | | | 12 | |
| 00:45 | 0 | 1 | 2 | 3 | | | | | 2 | 4 | 12:45 | 6 | 32 | 3 | 16 | | | | | 9 | 48 |
| 01:00 | 0 | | 2 | | | | | | 2 | | 13:00 | 6 | | 7 | | | | | | 13 | |
| 01:15 | 2 | | 5 | | | | | | 7 | | 13:15 | 8 | | 5 | | | | | | 13 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 4 | | 7 | | | | | | 11 | |
| 01:45 | 0 | 2 | 0 | 7 | | | | | 0 | 9 | 13:45 | 5 | 23 | 6 | 25 | | | | | 11 | 48 |
| 02:00 | 1 | | 1 | | | | | | 2 | | 14:00 | 4 | | 4 | | | | | | 8 | |
| 02:15 | 0 | | 1 | | | | | | 1 | | 14:15 | 3 | | 8 | | | | | | 11 | |
| 02:30 | 0 | | 2 | | | | | | 2 | | 14:30 | 6 | | 4 | | | | | | 10 | |
| 02:45 | 0 | 1 | 1 | 5 | | | | | 1 | 6 | 14:45 | 8 | 21 | 0 | 16 | | | | | 8 | 37 |
| 03:00 | 0 | | 1 | | | | | | 1 | | 15:00 | 6 | | 7 | | | | | | 13 | |
| 03:15 | 0 | | 2 | | | | | | 2 | | 15:15 | 3 | | 5 | | | | | | 8 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 10 | | 6 | | | | | | 16 | |
| 03:45 | 0 | | 0 | 3 | | | | | 0 | 3 | 15:45 | 2 | 21 | 6 | 24 | | | | | 8 | 45 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 10 | | 9 | | | | | | 19 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 3 | | 5 | | | | | | 8 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 5 | | 5 | | | | | | 10 | |
| 04:45 | 0 | | 0 | | | | | | 0 | | 16:45 | 8 | 26 | 5 | 24 | | | | | 13 | 50 |
| 05:00 | 0 | | 0 | | | | | | 0 | | 17:00 | 1 | | 6 | | | | | | 7 | |
| 05:15 | 0 | | 0 | | | | | | 0 | | 17:15 | 5 | | 5 | | | | | | 10 | |
| 05:30 | 1 | | 1 | | | | | | 2 | | 17:30 | 5 | | 8 | | | | | | 13 | |
| 05:45 | 0 | 1 | 0 | 1 | | | | | 0 | 2 | 17:45 | 2 | 13 | 7 | 26 | | | | | 9 | 39 |
| 06:00 | 0 | | 1 | | | | | | 1 | | 18:00 | 1 | | 2 | | | | | | 3 | |
| 06:15 | 2 | | 1 | | | | | | 3 | | 18:15 | 4 | | 3 | | | | | | 7 | |
| 06:30 | 1 | | 0 | | | | | | 1 | | 18:30 | 2 | | 5 | | | | | | 7 | |
| 06:45 | 0 | 3 | 1 | 3 | | | | | 1 | 6 | 18:45 | 2 | 9 | 1 | 11 | | | | | 3 | 20 |
| 07:00 | 1 | | 1 | | | | | | 2 | | 19:00 | 3 | | 1 | | | | | | 4 | |
| 07:15 | 3 | | 0 | | | | | | 3 | | 19:15 | 6 | | 1 | | | | | | 7 | |
| 07:30 | 1 | | 3 | | | | | | 4 | | 19:30 | 3 | | 4 | | | | | | 7 | |
| 07:45 | 4 | 9 | 0 | 4 | | | | | 4 | 13 | 19:45 | 3 | 15 | 6 | 12 | | | | | 9 | 27 |
| 08:00 | 1 | | 0 | | | | | | 1 | | 20:00 | 3 | | 3 | | | | | | 6 | |
| 08:15 | 3 | | 2 | | | | | | 5 | | 20:15 | 2 | | 3 | | | | | | 5 | |
| 08:30 | 7 | | 0 | | | | | | 7 | | 20:30 | 1 | | 3 | | | | | | 4 | |
| 08:45 | 2 | 13 | 2 | 4 | | | | | 4 | 17 | 20:45 | 0 | 6 | 1 | 10 | | | | | 1 | 16 |
| 09:00 | 4 | | 0 | | | | | | 4 | | 21:00 | 1 | | 3 | | | | | | 4 | |
| 09:15 | 4 | | 3 | | | | | | 7 | | 21:15 | 3 | | 7 | | | | | | 10 | |
| 09:30 | 3 | | 4 | | | | | | 7 | | 21:30 | 6 | | 4 | | | | | | 10 | |
| 09:45 | 3 | 14 | 1 | 8 | | | | | 4 | 22 | 21:45 | 2 | 12 | 3 | 17 | | | | | 5 | 29 |
| 10:00 | 2 | | 6 | | | | | | 8 | | 22:00 | 3 | | 2 | | | | | | 5 | |
| 10:15 | 6 | | 3 | | | | | | 9 | | 22:15 | 3 | | 3 | | | | | | 6 | |
| 10:30 | 6 | | 6 | | | | | | 12 | | 22:30 | 3 | | 1 | | | | | | 4 | |
| 10:45 | 5 | 19 | 5 | 20 | | | | | 10 | 39 | 22:45 | 4 | 13 | 2 | 8 | | | | | 6 | 21 |
| 11:00 | 3 | | 4 | | | | | | 7 | | 23:00 | 4 | | 4 | | | | | | 8 | |
| 11:15 | 7 | | 7 | | | | | | 14 | | 23:15 | 3 | | 1 | | | | | | 4 | |
| 11:30 | 7 | | 9 | | | | | | 16 | | 23:30 | 1 | | 1 | | | | | | 2 | |
| 11:45 | 7 | 24 | 6 | 26 | | | | | 13 | 50 | 23:45 | 2 | 10 | 6 | 12 | | | | | 8 | 22 |
| **TOTALS** | | 87 | | 84 | | | | | | **171** | **TOTALS** | | 201 | | 201 | | | | | | **402** |
| **SPLIT %** | | 50.9% | | 49.1% | | | | | | **29.8%** | **SPLIT %** | | 50.0% | | 50.0% | | | | | | **70.2%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 288 | 285 | 0 | 0 | 573 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | 11:30 | 11:15 | | | **11:15** | **PM Peak Hour** | 12:00 | 15:15 | | | **15:15** |
| **AM Pk Volume** | 34 | 28 | | | **57** | **PM Pk Volume** | 32 | 26 | | | **51** |
| **Pk Hr Factor** | 0.708 | 0.778 | | | **0.891** | **Pk Hr Factor** | 0.667 | 0.722 | | | **0.671** |
| **7 - 9 Volume** | 22 | 8 | 0 | 0 | **30** | **4 - 6 Volume** | 39 | 50 | 0 | 0 | **89** |
| **7 - 9 Peak Hour** | 07:45 | 07:30 | | | **07:45** | **4 - 6 Peak Hour** | 16:00 | 17:00 | | | **16:00** |
| **7 - 9 Pk Volume** | 15 | 5 | 0 | 0 | **17** | **4 - 6 Pk Volume** | 26 | 26 | 0 | 0 | **50** |
| **Pk Hr Factor** | 0.536 | 0.417 | 0.000 | 0.000 | **0.607** | **Pk Hr Factor** | 0.650 | 0.813 | 0.000 | 0.000 | **0.658** |

Prepared by NDS/ATD

# VOLUME

Almont Dr Bet. Charleville Blvd & Gregory Wy

**Day:** Tuesday
**Date:** 6/30/2015

**City:** Beverly Hills
**Project #:** CA15_5412_002

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 525 | 431 | 0 | 0 | 956 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 1 | | 2 | | | | | | 3 | | 12:00 | 7 | | 4 | | | | | | 11 | |
| 00:15 | 1 | | 1 | | | | | | 2 | | 12:15 | 9 | | 10 | | | | | | 19 | |
| 00:30 | 5 | | 1 | | | | | | 6 | | 12:30 | 7 | | 7 | | | | | | 14 | |
| 00:45 | 0 | 7 | 1 | 5 | | | | | 1 | 12 | 12:45 | 10 | 33 | 8 | 29 | | | | | 18 | 62 |
| 01:00 | 0 | | 2 | | | | | | 2 | | 13:00 | 11 | | 6 | | | | | | 17 | |
| 01:15 | 1 | | 2 | | | | | | 3 | | 13:15 | 5 | | 8 | | | | | | 13 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 9 | | 5 | | | | | | 14 | |
| 01:45 | 0 | 1 | 0 | 4 | | | | | 0 | 5 | 13:45 | 9 | 34 | 10 | 29 | | | | | 19 | 63 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 7 | | 9 | | | | | | 16 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 6 | | 6 | | | | | | 12 | |
| 02:30 | 0 | | 0 | | | | | | 0 | | 14:30 | 6 | | 11 | | | | | | 17 | |
| 02:45 | 0 | | 1 | 1 | | | | | 1 | 1 | 14:45 | 10 | 29 | 9 | 35 | | | | | 19 | 64 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 9 | | 0 | | | | | | 9 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 6 | | 5 | | | | | | 11 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 4 | | 14 | | | | | | 18 | |
| 03:45 | 0 | | 0 | | | | | | 0 | | 15:45 | 11 | 30 | 11 | 30 | | | | | 22 | 60 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 11 | | 12 | | | | | | 23 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 5 | | 7 | | | | | | 12 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 9 | | 10 | | | | | | 19 | |
| 04:45 | 2 | 2 | 0 | | | | | | 2 | 2 | 16:45 | 14 | 39 | 6 | 35 | | | | | 20 | 74 |
| 05:00 | 1 | | 1 | | | | | | 2 | | 17:00 | 6 | | 14 | | | | | | 20 | |
| 05:15 | 0 | | 1 | | | | | | 1 | | 17:15 | 11 | | 12 | | | | | | 23 | |
| 05:30 | 0 | | 0 | | | | | | 0 | | 17:30 | 9 | | 5 | | | | | | 14 | |
| 05:45 | 0 | 1 | 0 | 2 | | | | | 0 | 3 | 17:45 | 19 | 45 | 7 | 38 | | | | | 26 | 83 |
| 06:00 | 4 | | 0 | | | | | | 4 | | 18:00 | 9 | | 8 | | | | | | 17 | |
| 06:15 | 4 | | 0 | | | | | | 4 | | 18:15 | 14 | | 8 | | | | | | 22 | |
| 06:30 | 4 | | 1 | | | | | | 5 | | 18:30 | 14 | | 7 | | | | | | 21 | |
| 06:45 | 8 | 20 | 1 | 2 | | | | | 9 | 22 | 18:45 | 14 | 51 | 7 | 30 | | | | | 21 | 81 |
| 07:00 | 3 | | 0 | | | | | | 3 | | 19:00 | 12 | | 4 | | | | | | 16 | |
| 07:15 | 2 | | 5 | | | | | | 7 | | 19:15 | 8 | | 4 | | | | | | 12 | |
| 07:30 | 4 | | 3 | | | | | | 7 | | 19:30 | 4 | | 4 | | | | | | 8 | |
| 07:45 | 14 | 23 | 2 | 10 | | | | | 16 | 33 | 19:45 | 6 | 30 | 3 | 15 | | | | | 9 | 45 |
| 08:00 | 7 | | 3 | | | | | | 10 | | 20:00 | 3 | | 2 | | | | | | 5 | |
| 08:15 | 8 | | 9 | | | | | | 17 | | 20:15 | 7 | | 5 | | | | | | 12 | |
| 08:30 | 14 | | 6 | | | | | | 20 | | 20:30 | 2 | | 8 | | | | | | 10 | |
| 08:45 | 8 | 37 | 6 | 24 | | | | | 14 | 61 | 20:45 | 2 | 14 | 9 | 24 | | | | | 11 | 38 |
| 09:00 | 19 | | 7 | | | | | | 26 | | 21:00 | 3 | | 5 | | | | | | 8 | |
| 09:15 | 9 | | 1 | | | | | | 10 | | 21:15 | 3 | | 9 | | | | | | 12 | |
| 09:30 | 11 | | 10 | | | | | | 21 | | 21:30 | 3 | | 3 | | | | | | 6 | |
| 09:45 | 6 | 45 | 8 | 26 | | | | | 14 | 71 | 21:45 | 2 | 11 | 9 | 26 | | | | | 11 | 37 |
| 10:00 | 10 | | 2 | | | | | | 12 | | 22:00 | 1 | | 3 | | | | | | 4 | |
| 10:15 | 8 | | 3 | | | | | | 11 | | 22:15 | 4 | | 1 | | | | | | 5 | |
| 10:30 | 8 | | 16 | | | | | | 24 | | 22:30 | 2 | | 1 | | | | | | 3 | |
| 10:45 | 4 | 30 | 5 | 26 | | | | | 9 | 56 | 22:45 | 1 | 8 | 2 | 7 | | | | | 3 | 15 |
| 11:00 | 5 | | 7 | | | | | | 12 | | 23:00 | 3 | | 0 | | | | | | 3 | |
| 11:15 | 8 | | 7 | | | | | | 15 | | 23:15 | 3 | | 4 | | | | | | 7 | |
| 11:30 | 8 | | 6 | | | | | | 14 | | 23:30 | 2 | | 1 | | | | | | 3 | |
| 11:45 | 6 | 27 | 8 | 28 | | | | | 14 | 55 | 23:45 | 0 | 8 | 0 | 5 | | | | | 0 | 13 |
| **TOTALS** | | 193 | | 128 | | | | | | **321** | **TOTALS** | | 332 | | 303 | | | | | | **635** |
| **SPLIT %** | | 60.1% | | 39.9% | | | | | | **33.6%** | **SPLIT %** | | 52.3% | | 47.7% | | | | | | **66.4%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 525 | 431 | 0 | 0 | 956 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | 08:30 | 10:30 | | | **08:15** | **PM Peak Hour** | 17:45 | 15:30 | | | **17:45** |
| **AM Pk Volume** | 50 | 35 | | | **77** | **PM Pk Volume** | 56 | 44 | | | **86** |
| **Pk Hr Factor** | 0.658 | 0.547 | | | **0.740** | **Pk Hr Factor** | 0.737 | 0.786 | | | **0.827** |
| **7 - 9 Volume** | 60 | 34 | 0 | 0 | **94** | **4 - 6 Volume** | 84 | 73 | 0 | 0 | **157** |
| **7 - 9 Peak Hour** | 07:45 | 08:00 | | | **07:45** | **4 - 6 Peak Hour** | 17:00 | 16:30 | | | **17:00** |
| **7 - 9 Pk Volume** | 43 | 24 | 0 | 0 | **63** | **4 - 6 Pk Volume** | 45 | 42 | 0 | 0 | **83** |
| **Pk Hr Factor** | 0.768 | 0.667 | 0.000 | 0.000 | **0.788** | **Pk Hr Factor** | 0.592 | 0.750 | 0.000 | 0.000 | **0.798** |

Prepared by NDS/ATD

# VOLUME

Charleville Blvd Bet. Almont Dr & Alley Bet. Almont Dr & La Peer Dr

**Day:** Saturday
**Date:** 6/27/2015

**City:** Beverly Hills
**Project #:** CA15_5412_003

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 749 | 714 | 1,463 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 4 | | 3 | | 7 | | 12:00 | | | 14 | | 16 | | 30 | |
| 00:15 | | | 4 | | 0 | | 4 | | 12:15 | | | 9 | | 20 | | 29 | |
| 00:30 | | | 1 | | 1 | | 2 | | 12:30 | | | 13 | | 12 | | 25 | |
| 00:45 | | | 1 | 10 | 1 | 5 | 2 | 15 | 12:45 | | | 17 | 53 | 13 | 61 | 30 | 114 |
| 01:00 | | | 2 | | 2 | | 4 | | 13:00 | | | 14 | | 21 | | 35 | |
| 01:15 | | | 3 | | 1 | | 4 | | 13:15 | | | 20 | | 22 | | 42 | |
| 01:30 | | | 2 | | 1 | | 3 | | 13:30 | | | 17 | | 11 | | 28 | |
| 01:45 | | | 2 | 9 | 0 | 4 | 2 | 13 | 13:45 | | | 17 | 68 | 17 | 71 | 34 | 139 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 18 | | 15 | | 33 | |
| 02:15 | | | 1 | | 2 | | 3 | | 14:15 | | | 13 | | 12 | | 25 | |
| 02:30 | | | 0 | | 2 | | 2 | | 14:30 | | | 14 | | 13 | | 27 | |
| 02:45 | | | 1 | 2 | 0 | 4 | 1 | 6 | 14:45 | | | 19 | 64 | 15 | 55 | 34 | 119 |
| 03:00 | | | 0 | | 1 | | 1 | | 15:00 | | | 13 | | 7 | | 20 | |
| 03:15 | | | 0 | | 1 | | 1 | | 15:15 | | | 9 | | 18 | | 27 | |
| 03:30 | | | 1 | | 0 | | 1 | | 15:30 | | | 20 | | 8 | | 28 | |
| 03:45 | | | 0 | 1 | 0 | 2 | 0 | 3 | 15:45 | | | 24 | 66 | 14 | 47 | 38 | 113 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 20 | | 13 | | 33 | |
| 04:15 | | | 1 | | 0 | | 1 | | 16:15 | | | 16 | | 11 | | 27 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 18 | | 12 | | 30 | |
| 04:45 | | | 0 | 2 | 0 | | 0 | 2 | 16:45 | | | 13 | 67 | 11 | 47 | 24 | 114 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 17 | | 19 | | 36 | |
| 05:15 | | | 0 | | 1 | | 1 | | 17:15 | | | 16 | | 12 | | 28 | |
| 05:30 | | | 1 | | 0 | | 1 | | 17:30 | | | 14 | | 12 | | 26 | |
| 05:45 | | | 2 | 4 | 2 | 3 | 4 | 7 | 17:45 | | | 18 | 65 | 8 | 51 | 26 | 116 |
| 06:00 | | | 1 | | 1 | | 2 | | 18:00 | | | 14 | | 10 | | 24 | |
| 06:15 | | | 0 | | 2 | | 2 | | 18:15 | | | 9 | | 7 | | 16 | |
| 06:30 | | | 2 | | 1 | | 3 | | 18:30 | | | 13 | | 12 | | 25 | |
| 06:45 | | | 1 | 4 | 1 | 5 | 2 | 9 | 18:45 | | | 9 | 45 | 18 | 47 | 27 | 92 |
| 07:00 | | | 1 | | 2 | | 3 | | 19:00 | | | 15 | | 17 | | 32 | |
| 07:15 | | | 2 | | 0 | | 2 | | 19:15 | | | 16 | | 6 | | 22 | |
| 07:30 | | | 0 | | 2 | | 2 | | 19:30 | | | 11 | | 11 | | 22 | |
| 07:45 | | | 3 | 6 | 1 | 5 | 4 | 11 | 19:45 | | | 9 | 51 | 7 | 41 | 16 | 92 |
| 08:00 | | | 4 | | 0 | | 4 | | 20:00 | | | 8 | | 10 | | 18 | |
| 08:15 | | | 6 | | 9 | | 15 | | 20:15 | | | 5 | | 5 | | 10 | |
| 08:30 | | | 4 | | 10 | | 14 | | 20:30 | | | 6 | | 4 | | 10 | |
| 08:45 | | | 13 | 27 | 12 | 31 | 25 | 58 | 20:45 | | | 7 | 26 | 2 | 21 | 9 | 47 |
| 09:00 | | | 8 | | 13 | | 21 | | 21:00 | | | 9 | | 3 | | 12 | |
| 09:15 | | | 7 | | 9 | | 16 | | 21:15 | | | 5 | | 4 | | 9 | |
| 09:30 | | | 8 | | 19 | | 27 | | 21:30 | | | 11 | | 8 | | 19 | |
| 09:45 | | | 11 | 34 | 14 | 55 | 25 | 89 | 21:45 | | | 7 | 32 | 6 | 21 | 13 | 53 |
| 10:00 | | | 9 | | 11 | | 20 | | 22:00 | | | 4 | | 6 | | 10 | |
| 10:15 | | | 14 | | 12 | | 26 | | 22:15 | | | 4 | | 3 | | 7 | |
| 10:30 | | | 4 | | 13 | | 17 | | 22:30 | | | 2 | | 3 | | 5 | |
| 10:45 | | | 11 | 38 | 16 | 52 | 27 | 90 | 22:45 | | | 6 | 16 | 4 | 16 | 10 | 32 |
| 11:00 | | | 15 | | 14 | | 29 | | 23:00 | | | 5 | | 3 | | 8 | |
| 11:15 | | | 11 | | 12 | | 23 | | 23:15 | | | 2 | | 3 | | 5 | |
| 11:30 | | | 6 | | 17 | | 23 | | 23:30 | | | 4 | | 2 | | 6 | |
| 11:45 | | | 14 | 46 | 17 | 60 | 31 | 106 | 23:45 | | | 2 | 13 | 2 | 10 | 4 | 23 |
| TOTALS | | | | 183 | | 226 | | 409 | TOTALS | | | | 566 | | 488 | | 1054 |
| SPLIT % | | | | 44.7% | | 55.3% | | 28.0% | SPLIT % | | | | 53.7% | | 46.3% | | 72.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 749 | 714 | 1,463 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 11:45 | 11:30 | 11:45 | PM Peak Hour | | | 15:30 | 13:00 | 13:00 |
| AM Pk Volume | | | 50 | 70 | 115 | PM Pk Volume | | | 80 | 71 | 139 |
| Pk Hr Factor | | | 0.893 | 0.875 | 0.927 | Pk Hr Factor | | | 0.833 | 0.807 | 0.827 |
| 7 - 9 Volume | 0 | 0 | 33 | 36 | 69 | 4 - 6 Volume | 0 | 0 | 132 | 98 | 230 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 16:00 | 16:30 | 16:30 |
| 7 - 9 Pk Volume | 0 | 0 | 27 | 31 | 58 | 4 - 6 Pk Volume | 0 | 0 | 67 | 54 | 118 |
| Pk Hr Factor | 0.000 | 0.000 | 0.519 | 0.646 | 0.580 | Pk Hr Factor | 0.000 | 0.000 | 0.838 | 0.711 | 0.819 |

Prepared by NDS/ATD

# VOLUME

Charleville Blvd Bet. Almont Dr & Alley Bet. Almont Dr & La Peer Dr

**Day:** Tuesday
**Date:** 6/30/2015

**City:** Beverly Hills
**Project #:** CA15_5412_003

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,786 | 1,603 | 3,389 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 1 | | 1 | | 2 | | 12:00 | | | 28 | | 22 | | 50 | |
| 00:15 | | | 1 | | 0 | | 1 | | 12:15 | | | 27 | | 26 | | 53 | |
| 00:30 | | | 3 | | 1 | | 4 | | 12:30 | | | 26 | | 35 | | 61 | |
| 00:45 | | | 1 | 6 | 3 | 5 | 4 | 11 | 12:45 | | | 22 | 103 | 33 | 116 | 55 | 219 |
| 01:00 | | | 0 | | 1 | | 1 | | 13:00 | | | 33 | | 25 | | 58 | |
| 01:15 | | | 2 | | 1 | | 3 | | 13:15 | | | 27 | | 22 | | 49 | |
| 01:30 | | | 0 | | 1 | | 1 | | 13:30 | | | 26 | | 27 | | 53 | |
| 01:45 | | | 1 | 3 | 0 | 3 | 1 | 6 | 13:45 | | | 25 | 111 | 26 | 100 | 51 | 211 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 23 | | 30 | | 53 | |
| 02:15 | | | 1 | | 0 | | 1 | | 14:15 | | | 25 | | 32 | | 57 | |
| 02:30 | | | 0 | | 0 | | 0 | | 14:30 | | | 31 | | 25 | | 56 | |
| 02:45 | | | 0 | 1 | 0 | | 0 | 1 | 14:45 | | | 24 | 103 | 25 | 112 | 49 | 215 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 32 | | 30 | | 62 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 32 | | 27 | | 59 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 42 | | 27 | | 69 | |
| 03:45 | | | 0 | | 0 | | 0 | | 15:45 | | | 37 | 143 | 29 | 113 | 66 | 256 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 51 | | 29 | | 80 | |
| 04:15 | | | 0 | | 0 | | 0 | | 16:15 | | | 38 | | 26 | | 64 | |
| 04:30 | | | 0 | | 1 | | 1 | | 16:30 | | | 53 | | 22 | | 75 | |
| 04:45 | | | 0 | | 0 | 1 | 0 | 1 | 16:45 | | | 53 | 195 | 36 | 113 | 89 | 308 |
| 05:00 | | | 1 | | 1 | | 2 | | 17:00 | | | 61 | | 40 | | 101 | |
| 05:15 | | | 0 | | 1 | | 1 | | 17:15 | | | 71 | | 39 | | 110 | |
| 05:30 | | | 0 | | 1 | | 1 | | 17:30 | | | 85 | | 28 | | 113 | |
| 05:45 | | | 0 | 1 | 4 | 7 | 4 | 8 | 17:45 | | | 70 | 287 | 27 | 134 | 97 | 421 |
| 06:00 | | | 3 | | 1 | | 4 | | 18:00 | | | 82 | | 25 | | 107 | |
| 06:15 | | | 0 | | 2 | | 2 | | 18:15 | | | 64 | | 28 | | 92 | |
| 06:30 | | | 4 | | 6 | | 10 | | 18:30 | | | 54 | | 9 | | 63 | |
| 06:45 | | | 6 | 13 | 12 | 21 | 18 | 34 | 18:45 | | | 39 | 239 | 18 | 80 | 57 | 319 |
| 07:00 | | | 2 | | 11 | | 13 | | 19:00 | | | 25 | | 13 | | 38 | |
| 07:15 | | | 5 | | 15 | | 20 | | 19:15 | | | 27 | | 14 | | 41 | |
| 07:30 | | | 8 | | 15 | | 23 | | 19:30 | | | 25 | | 10 | | 35 | |
| 07:45 | | | 11 | 26 | 23 | 64 | 34 | 90 | 19:45 | | | 20 | 97 | 5 | 42 | 25 | 139 |
| 08:00 | | | 17 | | 26 | | 43 | | 20:00 | | | 16 | | 7 | | 23 | |
| 08:15 | | | 18 | | 59 | | 77 | | 20:15 | | | 19 | | 9 | | 28 | |
| 08:30 | | | 28 | | 60 | | 88 | | 20:30 | | | 12 | | 12 | | 24 | |
| 08:45 | | | 10 | 73 | 71 | 216 | 81 | 289 | 20:45 | | | 8 | 55 | 7 | 35 | 15 | 90 |
| 09:00 | | | 21 | | 45 | | 66 | | 21:00 | | | 10 | | 4 | | 14 | |
| 09:15 | | | 22 | | 36 | | 58 | | 21:15 | | | 17 | | 3 | | 20 | |
| 09:30 | | | 15 | | 42 | | 57 | | 21:30 | | | 6 | | 1 | | 7 | |
| 09:45 | | | 21 | 79 | 30 | 153 | 51 | 232 | 21:45 | | | 6 | 39 | 13 | 21 | 19 | 60 |
| 10:00 | | | 30 | | 42 | | 72 | | 22:00 | | | 6 | | 5 | | 11 | |
| 10:15 | | | 25 | | 32 | | 57 | | 22:15 | | | 5 | | 1 | | 6 | |
| 10:30 | | | 22 | | 37 | | 59 | | 22:30 | | | 5 | | 3 | | 8 | |
| 10:45 | | | 24 | 101 | 36 | 147 | 60 | 248 | 22:45 | | | 1 | 17 | 1 | 10 | 2 | 27 |
| 11:00 | | | 25 | | 23 | | 48 | | 23:00 | | | 0 | | 2 | | 2 | |
| 11:15 | | | 18 | | 30 | | 48 | | 23:15 | | | 1 | | 0 | | 1 | |
| 11:30 | | | 13 | | 35 | | 48 | | 23:30 | | | 5 | | 2 | | 7 | |
| 11:45 | | | 31 | 87 | 17 | 105 | 48 | 192 | 23:45 | | | 1 | 7 | 1 | 5 | 2 | 12 |
| **TOTALS** | | | | 390 | | 722 | | **1112** | **TOTALS** | | | | 1396 | | 881 | | **2277** |
| **SPLIT %** | | | | 35.1% | | 64.9% | | **32.8%** | **SPLIT %** | | | | 61.3% | | 38.7% | | **67.2%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,786 | 1,603 | 3,389 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | | | 11:45 | 08:15 | **08:15** | **PM Peak Hour** | | | 17:15 | 16:45 | **17:15** |
| **AM Pk Volume** | | | 112 | 235 | **312** | **PM Pk Volume** | | | 308 | 143 | **427** |
| **Pk Hr Factor** | | | 0.903 | 0.827 | **0.886** | **Pk Hr Factor** | | | 0.906 | 0.894 | **0.945** |
| **7 - 9 Volume** | 0 | 0 | 99 | 280 | **379** | **4 - 6 Volume** | 0 | 0 | 482 | 247 | **729** |
| **7 - 9 Peak Hour** | | | 07:45 | 08:00 | **08:00** | **4 - 6 Peak Hour** | | | 17:00 | 16:45 | **17:00** |
| **7 - 9 Pk Volume** | 0 | 0 | 74 | 216 | **289** | **4 - 6 Pk Volume** | 0 | 0 | 287 | 143 | **421** |
| **Pk Hr Factor** | 0.000 | 0.000 | 0.661 | 0.761 | **0.821** | **Pk Hr Factor** | 0.000 | 0.000 | 0.844 | 0.894 | **0.931** |

# APPENDIX C
# Study Intersection Analysis Worksheets – Existing (Year 2015) Conditions

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.838 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 76 | Level Of Service: | D |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.51 | 0.49 | 1.00 | 2.83 | 0.17 | 1.00 | 2.89 | 0.11 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2414 | 786 | 1600 | 4532 | 268 | 1600 | 4618 | 182 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.25 | 0.05 | 0.05 | 0.20 | 0.20 | 0.06 | 0.23 | 0.23 | 0.08 | 0.38 | 0.38 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): 13.6 Worst Case Level Of Service: F[661.3]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1928 | 3278 | 397 | 2463 | 3254 | 676 | 1997 | xxxx | xxxxx | 1185 | xxxx | xxxxx |
| Potent Cap.: | 41 | 9 | 608 | 16 | 9 | 401 | 291 | xxxx | xxxxx | 596 | xxxx | xxxxx |
| Move Cap.: | 21 | 8 | 608 | 4 | 8 | 401 | 291 | xxxx | xxxxx | 596 | xxxx | xxxxx |
| Volume/Cap: | 0.33 | 0.88 | 0.04 | 1.11 | 0.48 | 0.08 | 0.07 | xxxx | xxxx | 0.05 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 18.3 | xxxx | xxxxx | 11.4 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 31 | xxxxx | xxxx | 25 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 4.3 | xxxxx | xxxxx | 5.2 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 439 | xxxxx | xxxxx | 661 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | F | * | * | F | * | * | * | * | * | * | * |
| ApproachDel: | 439.1 | | | 661.3 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.688 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 49 | Level Of Service: | B |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.78 | 0.22 | 1.00 | 0.67 | 0.33 | 1.00 | 2.90 | 0.10 | 1.00 | 2.92 | 0.08 |
| Final Sat.: | 1600 | 1248 | 352 | 1600 | 1067 | 533 | 1600 | 4641 | 159 | 1600 | 4676 | 124 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.10 | 0.11 | 0.03 | 0.13 | 0.13 | 0.02 | 0.24 | 0.24 | 0.03 | 0.40 | 0.40 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.276 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 8.3 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.23 | 0.60 | 0.17 | 0.16 | 0.50 | 0.34 | 0.23 | 0.75 | 0.02 | 0.02 | 0.96 | 0.02 |
| Final Sat.: | 170 | 448 | 124 | 120 | 379 | 259 | 182 | 604 | 19 | 18 | 812 | 18 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.10 | 0.10 | 0.10 | 0.28 | 0.28 | 0.28 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Delay/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.8 | 7.8 | 7.8 | 8.7 | 8.7 | 8.7 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.8 | 7.8 | 7.8 | 8.7 | 8.7 | 8.7 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.9 | | | 7.7 | | | 7.8 | | | 8.7 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.7 | | | 7.8 | | | 8.7 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.4 |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: D

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.73 | 0.27 | 1.00 | 2.84 | 0.16 | 1.00 | 2.85 | 0.15 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2767 | 433 | 1600 | 4544 | 256 | 1600 | 4564 | 236 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.25 | 0.06 | 0.06 | 0.17 | 0.17 | 0.10 | 0.38 | 0.38 | 0.07 | 0.30 | 0.30 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2481 | 3499 | 641 | 2219 | 3497 | 510 | 1513 | xxxx | xxxxx | 1908 | xxxx | xxxxx |
| Potent Cap.: | 16 | 6 | 422 | 25 | 6 | 514 | 448 | xxxx | xxxxx | 316 | xxxx | xxxxx |
| Move Cap.: | 6 | 6 | 422 | 0 | 6 | 514 | 448 | xxxx | xxxxx | 316 | xxxx | xxxxx |
| Volume/Cap: | 1.05 | 1.23 | 0.09 | xxxx | 0.70 | 0.08 | 0.06 | xxxx | xxxx | 0.06 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 13.6 | xxxx | xxxxx | 17.1 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | B | * | * | C | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 22 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 6.8 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 993 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | F | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | 993.1 | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.679 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 47 | Level Of Service: | B |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.72 | 0.28 | 1.00 | 0.79 | 0.21 | 1.00 | 2.97 | 0.03 | 1.00 | 2.94 | 0.06 |
| Final Sat.: | 1600 | 1145 | 455 | 1600 | 1261 | 339 | 1600 | 4747 | 53 | 1600 | 4702 | 98 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | 0.11 | 0.02 | 0.13 | 0.13 | 0.02 | 0.39 | 0.39 | 0.02 | 0.31 | 0.30 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.359 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 9.0 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.09 | 0.71 | 0.20 | 0.08 | 0.58 | 0.34 | 0.05 | 0.93 | 0.02 | 0.07 | 0.92 | 0.01 |
| Final Sat.: | 62 | 496 | 140 | 56 | 409 | 242 | 45 | 774 | 19 | 54 | 732 | 12 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.36 | 0.36 | 0.36 | 0.17 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |
| Delay/Veh: | 8.1 | 8.1 | 8.1 | 7.9 | 7.9 | 7.9 | 9.5 | 9.5 | 9.5 | 8.3 | 8.3 | 8.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.1 | 8.1 | 8.1 | 7.9 | 7.9 | 7.9 | 9.5 | 9.5 | 9.5 | 8.3 | 8.3 | 8.3 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.1 | | | 7.9 | | | 9.5 | | | 8.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.1 | | | 7.9 | | | 9.5 | | | 8.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.660 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 45 | Level Of Service: | B |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.55 | 0.45 | 1.00 | 2.76 | 0.24 | 1.00 | 2.76 | 0.24 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2482 | 718 | 1600 | 4417 | 383 | 1600 | 4423 | 377 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.21 | 0.04 | 0.04 | 0.14 | 0.14 | 0.07 | 0.25 | 0.25 | 0.06 | 0.21 | 0.21 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: E[ 38.3]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1626 | 2344 | 410 | 1524 | 2342 | 359 | 1068 | xxxx | xxxxx | 1221 | xxxx | xxxxx |
| Potent Cap.: | 69 | 37 | 597 | 82 | 37 | 643 | 660 | xxxx | xxxxx | 578 | xxxx | xxxxx |
| Move Cap.: | 62 | 35 | 597 | 75 | 35 | 643 | 660 | xxxx | xxxxx | 578 | xxxx | xxxxx |
| Volume/Cap: | 0.05 | 0.06 | 0.02 | 0.03 | 0.06 | 0.02 | 0.03 | xxxx | xxxx | 0.02 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 10.6 | xxxx | xxxxx | 11.4 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | B | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 123 | xxxxx | xxxx | 156 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 0.4 | xxxxx | xxxxx | 0.3 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 38.3 | xxxxx | xxxxx | 30.7 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | E | * | * | D | * | * | * | * | * | * | * |
| ApproachDel: | 38.3 | | | 30.7 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | E | | | D | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.421 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 29 | Level Of Service: | A |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.61 | 0.39 | 1.00 | 0.63 | 0.37 | 1.00 | 2.95 | 0.05 | 1.00 | 2.95 | 0.05 |
| Final Sat.: | 1600 | 975 | 625 | 1600 | 1008 | 592 | 1600 | 4720 | 80 | 1600 | 4717 | 83 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.04 | 0.04 | 0.02 | 0.05 | 0.05 | 0.01 | 0.25 | 0.25 | 0.01 | 0.22 | 0.22 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.089 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 7.4 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.32 | 0.56 | 0.12 | 0.13 | 0.61 | 0.26 | 0.12 | 0.82 | 0.06 | 0.01 | 0.92 | 0.07 |
| Final Sat.: | 263 | 460 | 99 | 109 | 519 | 219 | 101 | 716 | 56 | 12 | 803 | 61 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Delay/Veh: | 7.4 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.5 | 7.5 | 7.5 | 7.4 | 7.4 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.4 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.5 | 7.5 | 7.5 | 7.4 | 7.4 | 7.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.4 | | | 7.3 | | | 7.5 | | | 7.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.4 | | | 7.3 | | | 7.5 | | | 7.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.

# APPENDIX D
# Study Intersection Analysis Worksheets – Future (Year 2018) pre-Project Conditions

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.910 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 106 | Level Of Service: | E |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 123 | 414 | 83 | 81 | 494 | 161 | 96 | 1096 | 65 | 128 | 1802 | 71 |
| Added Vol: | 0 | 23 | 0 | 0 | 19 | 0 | 0 | 132 | 0 | 0 | 174 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 123 | 437 | 83 | 81 | 513 | 161 | 96 | 1228 | 65 | 128 | 1976 | 71 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 123 | 437 | 83 | 81 | 513 | 161 | 96 | 1228 | 65 | 128 | 1976 | 71 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 123 | 437 | 83 | 81 | 513 | 161 | 96 | 1228 | 65 | 128 | 1976 | 71 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 123 | 437 | 83 | 81 | 513 | 161 | 96 | 1228 | 65 | 128 | 1976 | 71 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.52 | 0.48 | 1.00 | 2.85 | 0.15 | 1.00 | 2.90 | 0.10 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2436 | 764 | 1600 | 4559 | 241 | 1600 | 4633 | 167 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.27 | 0.05 | 0.05 | 0.21 | 0.21 | 0.06 | 0.27 | 0.27 | 0.08 | 0.43 | 0.43 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 7 | 7 | 25 | 4 | 4 | 35 | 21 | 1208 | 13 | 32 | 1996 | 62 |
| Added Vol: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 132 | 0 | 0 | 174 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 7 | 8 | 25 | 4 | 5 | 35 | 21 | 1340 | 13 | 32 | 2170 | 62 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 7 | 8 | 25 | 4 | 5 | 35 | 21 | 1340 | 13 | 32 | 2170 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 7 | 8 | 25 | 4 | 5 | 35 | 21 | 1340 | 13 | 32 | 2170 | 62 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2177 | 3683 | 453 | 2756 | 3659 | 754 | 2232 | xxxx | xxxxx | 1353 | xxxx | xxxxx |
| Potent Cap.: | 27 | 5 | 559 | 9 | 5 | 356 | 236 | xxxx | xxxxx | 515 | xxxx | xxxxx |
| Move Cap.: | 0 | 4 | 559 | 0 | 4 | 356 | 236 | xxxx | xxxxx | 515 | xxxx | xxxxx |
| Volume/Cap: | xxxx | 1.98 | 0.04 | xxxx | 1.19 | 0.10 | 0.09 | xxxx | xxxx | 0.06 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.3 | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 21.7 | xxxx | xxxxx | 12.4 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 0 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.755 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 58 | Level Of Service: | C |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 59 | 135 | 38 | 54 | 144 | 72 | 27 | 1169 | 40 | 53 | 1950 | 52 |
| Added Vol: | 1 | 5 | 0 | 4 | 2 | 5 | 12 | 119 | 1 | 0 | 169 | 9 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 60 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 41 | 53 | 2119 | 61 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 60 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 41 | 53 | 2119 | 61 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 60 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 41 | 53 | 2119 | 61 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 60 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 41 | 53 | 2119 | 61 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 1.00 | 0.65 | 0.35 | 1.00 | 2.91 | 0.09 | 1.00 | 2.92 | 0.08 |
| Final Sat.: | 1600 | 1258 | 342 | 1600 | 1048 | 552 | 1600 | 4651 | 149 | 1600 | 4667 | 133 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.11 | 0.11 | 0.04 | 0.14 | 0.14 | 0.02 | 0.28 | 0.28 | 0.03 | 0.45 | 0.45 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.289 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 8.4 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 11 | 30 | 8 | 6 | 20 | 13 | 20 | 65 | 2 | 5 | 231 | 5 |
| Added Vol: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 3 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 31 | 8 | 6 | 21 | 13 | 20 | 71 | 2 | 5 | 234 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 31 | 8 | 6 | 21 | 13 | 20 | 71 | 2 | 5 | 234 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 31 | 8 | 6 | 21 | 13 | 20 | 71 | 2 | 5 | 234 | 5 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 31 | 8 | 6 | 21 | 13 | 20 | 71 | 2 | 5 | 234 | 5 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.22 | 0.62 | 0.16 | 0.15 | 0.52 | 0.33 | 0.21 | 0.77 | 0.02 | 0.02 | 0.96 | 0.02 |
| Final Sat.: | 164 | 448 | 120 | 115 | 382 | 249 | 169 | 613 | 18 | 18 | 808 | 18 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.05 | 0.05 | 0.05 | 0.12 | 0.12 | 0.12 | 0.29 | 0.29 | 0.29 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.9 | 7.9 | 7.9 | 8.9 | 8.9 | 8.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.9 | 7.9 | 7.9 | 8.9 | 8.9 | 8.9 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.9 | | | 7.7 | | | 7.9 | | | 8.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.7 | | | 7.9 | | | 8.9 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.4 |

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.942 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 126 | Level Of Service: | E |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 126 | 416 | 103 | 95 | 487 | 76 | 165 | 1792 | 101 | 112 | 1395 | 72 |
| Added Vol: | 0 | 22 | 0 | 0 | 30 | 0 | 0 | 212 | 0 | 0 | 222 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 126 | 438 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 112 | 1617 | 72 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 126 | 438 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 112 | 1617 | 72 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 126 | 438 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 112 | 1617 | 72 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 126 | 438 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 112 | 1617 | 72 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.74 | 0.26 | 1.00 | 2.86 | 0.14 | 1.00 | 2.87 | 0.13 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2789 | 411 | 1600 | 4570 | 230 | 1600 | 4595 | 205 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.27 | 0.06 | 0.06 | 0.19 | 0.19 | 0.10 | 0.44 | 0.44 | 0.07 | 0.35 | 0.35 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 6 | 7 | 41 | 6 | 4 | 41 | 28 | 1936 | 30 | 20 | 1526 | 33 |
| Added Vol: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 212 | 0 | 0 | 222 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 6 | 9 | 41 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 6 | 9 | 41 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 6 | 9 | 41 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2843 | 4039 | 731 | 2580 | 4037 | 599 | 1781 | xxxx | xxxxx | 2178 | xxxx | xxxxx |
| Potent Cap.: | 8 | 3 | 369 | 13 | 3 | 450 | 353 | xxxx | xxxxx | 248 | xxxx | xxxxx |
| Move Cap.: | 0 | 2 | 369 | 0 | 2 | 450 | 353 | xxxx | xxxxx | 248 | xxxx | xxxxx |
| Volume/Cap: | xxxx | 3.90 | 0.11 | xxxx | 2.59 | 0.09 | 0.08 | xxxx | xxxx | 0.08 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.3 | xxxx | xxxxx | 0.3 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 16.1 | xxxx | xxxxx | 20.8 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | C | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 0 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.752 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 57 | Level Of Service: | C |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 56 | 135 | 54 | 35 | 165 | 44 | 37 | 1925 | 22 | 40 | 1477 | 31 |
| Added Vol: | 2 | 3 | 0 | 11 | 5 | 14 | 8 | 202 | 2 | 0 | 207 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 138 | 54 | 46 | 170 | 58 | 45 | 2127 | 24 | 40 | 1684 | 37 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 58 | 138 | 54 | 46 | 170 | 58 | 45 | 2127 | 24 | 40 | 1684 | 37 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 138 | 54 | 46 | 170 | 58 | 45 | 2127 | 24 | 40 | 1684 | 37 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 58 | 138 | 54 | 46 | 170 | 58 | 45 | 2127 | 24 | 40 | 1684 | 37 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.72 | 0.28 | 1.00 | 0.74 | 0.26 | 1.00 | 2.97 | 0.03 | 1.00 | 2.94 | 0.06 |
| Final Sat.: | 1600 | 1152 | 448 | 1600 | 1191 | 409 | 1600 | 4747 | 53 | 1600 | 4697 | 103 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.12 | 0.12 | 0.03 | 0.14 | 0.14 | 0.03 | 0.45 | 0.45 | 0.03 | 0.36 | 0.36 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.381 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 9.2 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 4 | 33 | 9 | 3 | 23 | 13 | 16 | 286 | 7 | 9 | 127 | 2 |
| Added Vol: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 6 | 0 | 0 | 8 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 35 | 9 | 3 | 25 | 13 | 16 | 292 | 7 | 9 | 135 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 35 | 9 | 3 | 25 | 13 | 16 | 292 | 7 | 9 | 135 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 35 | 9 | 3 | 25 | 13 | 16 | 292 | 7 | 9 | 135 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 35 | 9 | 3 | 25 | 13 | 16 | 292 | 7 | 9 | 135 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.09 | 0.72 | 0.19 | 0.07 | 0.60 | 0.33 | 0.05 | 0.93 | 0.02 | 0.06 | 0.93 | 0.01 |
| Final Sat.: | 58 | 494 | 131 | 52 | 415 | 225 | 43 | 768 | 19 | 50 | 729 | 11 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.38 | 0.38 | 0.38 | 0.18 | 0.18 | 0.18 |
| Crit Moves: | | **** | | | | **** | | **** | | **** | | |
| Delay/Veh: | 8.2 | 8.2 | 8.2 | 8.0 | 8.0 | 8.0 | 9.8 | 9.8 | 9.8 | 8.4 | 8.4 | 8.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 8.2 | 8.2 | 8.0 | 8.0 | 8.0 | 9.8 | 9.8 | 9.8 | 8.4 | 8.4 | 8.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.2 | | | 8.0 | | | 9.8 | | | 8.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 8.0 | | | 9.8 | | | 8.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 | 0.6 | 0.6 | 0.2 | 0.2 | 0.2 |

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.755 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 58 | Level Of Service: | C |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 78 | 342 | 57 | 56 | 356 | 103 | 116 | 1120 | 97 | 93 | 927 | 79 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 80 | 352 | 59 | 58 | 367 | 106 | 120 | 1154 | 100 | 96 | 955 | 81 |
| Added Vol: | 0 | 39 | 0 | 0 | 35 | 0 | 0 | 255 | 0 | 0 | 256 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 80 | 391 | 59 | 58 | 402 | 106 | 120 | 1409 | 100 | 96 | 1211 | 81 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 80 | 391 | 59 | 58 | 402 | 106 | 120 | 1409 | 100 | 96 | 1211 | 81 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 80 | 391 | 59 | 58 | 402 | 106 | 120 | 1409 | 100 | 96 | 1211 | 81 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 80 | 391 | 59 | 58 | 402 | 106 | 120 | 1409 | 100 | 96 | 1211 | 81 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.58 | 0.42 | 1.00 | 2.80 | 0.20 | 1.00 | 2.81 | 0.19 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2531 | 669 | 1600 | 4482 | 318 | 1600 | 4498 | 302 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.24 | 0.04 | 0.04 | 0.16 | 0.16 | 0.07 | 0.31 | 0.31 | 0.06 | 0.27 | 0.27 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): 2.2  Worst Case Level Of Service: F[175.8]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 3 | 2 | 10 | 2 | 2 | 12 | 17 | 1206 | 15 | 14 | 1049 | 19 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 3 | 2 | 10 | 2 | 2 | 12 | 18 | 1243 | 15 | 14 | 1081 | 20 |
| Added Vol: | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 255 | 0 | 0 | 256 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 3 | 5 | 10 | 2 | 5 | 12 | 18 | 1498 | 15 | 14 | 1337 | 20 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 3 | 5 | 10 | 2 | 5 | 12 | 18 | 1498 | 15 | 14 | 1337 | 20 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 3 | 5 | 10 | 2 | 5 | 12 | 18 | 1498 | 15 | 14 | 1337 | 20 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2017 | 2926 | 507 | 1912 | 2923 | 455 | 1356 | xxxx | xxxxx | 1513 | xxxx | xxxxx |
| Potent Cap.: | 35 | 15 | 516 | 42 | 16 | 557 | 514 | xxxx | xxxxx | 448 | xxxx | xxxxx |
| Move Cap.: | 24 | 14 | 516 | 29 | 15 | 557 | 514 | xxxx | xxxxx | 448 | xxxx | xxxxx |
| Volume/Cap: | 0.13 | 0.35 | 0.02 | 0.07 | 0.35 | 0.02 | 0.03 | xxxx | xxxx | 0.03 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 12.3 | xxxx | xxxxx | 13.3 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | B | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 37 | xxxxx | xxxx | 44 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 1.7 | xxxxx | xxxxx | 1.6 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 176 | xxxxx | xxxxx | 140 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | F | * | * | F | * | * | * | * | * | * | * |
| ApproachDel: | 175.8 | | | 140.5 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.486 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 33 | Level Of Service: | A |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 39 | 25 | 25 | 46 | 27 | 17 | 1185 | 20 | 11 | 1027 | 18 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 29 | 40 | 26 | 26 | 47 | 28 | 18 | 1221 | 21 | 11 | 1058 | 19 |
| Added Vol: | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 251 | 4 | 0 | 253 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 32 | 40 | 26 | 26 | 47 | 28 | 18 | 1472 | 25 | 11 | 1311 | 19 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 32 | 40 | 26 | 26 | 47 | 28 | 18 | 1472 | 25 | 11 | 1311 | 19 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 32 | 40 | 26 | 26 | 47 | 28 | 18 | 1472 | 25 | 11 | 1311 | 19 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 32 | 40 | 26 | 26 | 47 | 28 | 18 | 1472 | 25 | 11 | 1311 | 19 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.61 | 0.39 | 1.00 | 0.63 | 0.37 | 1.00 | 2.95 | 0.05 | 1.00 | 2.96 | 0.04 |
| Final Sat.: | 1600 | 975 | 625 | 1600 | 1008 | 592 | 1600 | 4721 | 79 | 1600 | 4733 | 67 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.04 | 0.04 | 0.02 | 0.05 | 0.05 | 0.01 | 0.31 | 0.31 | 0.01 | 0.28 | 0.28 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Pre-Project Conditions
Saturday Mid-day Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.108 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 7.5 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 14 | 3 | 4 | 19 | 8 | 9 | 64 | 5 | 1 | 66 | 5 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 8 | 14 | 3 | 4 | 20 | 8 | 9 | 66 | 5 | 1 | 68 | 5 |
| Added Vol: | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 13 | 0 | 0 | 10 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 8 | 17 | 3 | 4 | 23 | 8 | 9 | 79 | 5 | 1 | 78 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 8 | 17 | 3 | 4 | 23 | 8 | 9 | 79 | 5 | 1 | 78 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 8 | 17 | 3 | 4 | 23 | 8 | 9 | 79 | 5 | 1 | 78 | 5 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 8 | 17 | 3 | 4 | 23 | 8 | 9 | 79 | 5 | 1 | 78 | 5 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.29 | 0.60 | 0.11 | 0.12 | 0.65 | 0.23 | 0.10 | 0.85 | 0.05 | 0.01 | 0.93 | 0.06 |
| Final Sat.: | 231 | 489 | 87 | 98 | 535 | 195 | 86 | 729 | 48 | 11 | 801 | 53 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Delay/Veh: | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.4 | | | 7.4 | | | 7.6 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.4 | | | 7.4 | | | 7.6 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

# APPENDIX E
# 9378 Wilshire Boulevard Survey Data

Prepared by National Data & Surveying Services

# Canon Dr Trip Generation Study

**Location:** 9378 Wilshire Blvd **Day:** Thursday
**City:** Beverly Hills **Date:** 11/08/12

| Time | Garage From Canon Dr | Garage To Canon Dr | Garage IN NR | Garage IN SL | Garage OUT WL | Garage OUT WR |
|---|---|---|---|---|---|---|
| 7:00 | 0 | 0 | 2 | 0 | 0 | 0 |
| 7:15 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 | 0 | 0 | 2 | 0 | 0 | 0 |
| 7:45 | 0 | 0 | 1 | 0 | 0 | 0 |
| 8:00 | 0 | 0 | 0 | 2 | 1 | 0 |
| 8:15 | 0 | 0 | 3 | 3 | 0 | 0 |
| 8:30 | 0 | 0 | 1 | 3 | 0 | 0 |
| 8:45 | 0 | 0 | 6 | 8 | 1 | 0 |
| 9:00 | 1 | 0 | 15 | 11 | 0 | 1 |
| 9:15 | 0 | 0 | 3 | 9 | 0 | 1 |
| 9:30 | 2 | 0 | 5 | 3 | 2 | 0 |
| 9:45 | 1 | 0 | 3 | 5 | 1 | 2 |
| **TOTALS** | **4** | **0** | **41** | **44** | **6** | **4** |
| 14:00 | 4 | 0 | 0 | 2 | 2 | 1 |
| 14:15 | 0 | 0 | 0 | 1 | 0 | 1 |
| 14:30 | 0 | 0 | 1 | 0 | 0 | 0 |
| 14:45 | 1 | 3 | 1 | 1 | 1 | 3 |
| 15:00 | 4 | 0 | 2 | 4 | 3 | 1 |
| 15:15 | 2 | 2 | 4 | 3 | 2 | 1 |
| 15:30 | 2 | 1 | 0 | 0 | 3 | 4 |
| 15:45 | 0 | 1 | 0 | 1 | 1 | 3 |
| 16:00 | 0 | 0 | 0 | 0 | 3 | 3 |
| 16:15 | 0 | 0 | 1 | 0 | 3 | 1 |
| 16:30 | 0 | 0 | 2 | 2 | 2 | 1 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17:00 | 0 | 0 | 0 | 0 | 1 | 8 |
| 17:15 | 0 | 0 | 0 | 0 | 4 | 2 |
| 17:30 | 0 | 0 | 0 | 0 | 5 | 4 |
| 17:45 | 1 | 1 | 0 | 0 | 5 | 1 |
| **TOTALS** | **14** | **8** | **11** | **14** | **35** | **35** |

Prepared by National Data & Surveying Services

# Canon Dr Trip Generation Study

**Location:** 9378 Wilshire Blvd **Day:** Thursday
**City:** Beverly Hills **Date:** 11/15/12

| Time | Garage From Canon Dr | Garage To Canon Dr | Garage IN NR | Garage IN SL | Garage OUT WL | Garage OUT WR |
|---|---|---|---|---|---|---|
| 7:00 | 0 | 0 | 1 | 3 | 1 | 0 |
| 7:15 | 1 | 0 | 1 | 1 | 0 | 0 |
| 7:30 | 0 | 0 | 1 | 0 | 0 | 0 |
| 7:45 | 0 | 0 | 0 | 1 | 0 | 0 |
| 8:00 | 0 | 0 | 2 | 1 | 0 | 0 |
| 8:15 | 1 | 0 | 2 | 1 | 1 | 0 |
| 8:30 | 0 | 0 | 2 | 5 | 0 | 0 |
| 8:45 | 0 | 0 | 7 | 6 | 1 | 0 |
| 9:00 | 0 | 0 | 11 | 15 | 1 | 0 |
| 9:15 | 0 | 0 | 6 | 6 | 0 | 0 |
| 9:30 | 0 | 0 | 5 | 3 | 0 | 1 |
| 9:45 | 0 | 0 | 4 | 2 | 1 | 1 |
| **TOTALS** | **2** | **0** | **42** | **44** | **5** | **2** |
| 14:00 | 0 | 0 | 2 | 1 | 0 | 0 |
| 14:15 | 0 | 0 | 0 | 1 | 3 | 3 |
| 14:30 | 2 | 1 | 0 | 1 | 1 | 3 |
| 14:45 | 1 | 0 | 0 | 5 | 1 | 1 |
| 15:00 | 3 | 2 | 0 | 5 | 3 | 5 |
| 15:15 | 0 | 1 | 2 | 3 | 1 | 2 |
| 15:30 | 0 | 1 | 2 | 1 | 1 | 4 |
| 15:45 | 0 | 0 | 0 | 2 | 0 | 2 |
| 16:00 | 0 | 1 | 1 | 1 | 2 | 1 |
| 16:15 | 0 | 0 | 1 | 0 | 3 | 0 |
| 16:30 | 1 | 0 | 1 | 0 | 0 | 1 |
| 16:45 | 0 | 0 | 0 | 0 | 1 | 2 |
| 17:00 | 0 | 1 | 1 | 0 | 1 | 4 |
| 17:15 | 0 | 0 | 0 | 0 | 3 | 4 |
| 17:30 | 1 | 0 | 0 | 0 | 8 | 1 |
| 17:45 | 0 | 0 | 2 | 1 | 6 | 9 |
| **TOTALS** | **8** | **7** | **12** | **21** | **34** | **42** |

# DRIVEWAY STUDY - RESULTS

CLIENT: TASLIMI CONSTRUCTION COMPANY
PROJECT: 9378 WILSHIRE BOULEVARD - BEVERLY HILLS
DATES: MONDAY, MARCH 11 THRU FRIDAY, MARCH 15, 2013
PERIOD: 07:00 AM TO 09:00 AM

FILE: 1-DRWY-AM

| | MON, MARCH 11, 2013 | | TUES, MARCH 12, 2013 | | WED, MARCH 13, 2013 | | THURS, MARCH 14, 2013 | | FRI, MARCH 15, 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15-MIN | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | |
| PERIOD | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT |
| 0700-0715 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0715-0730 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 0730-0745 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |
| 0745-0800 | 3 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |
| 0800-0815 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 1 | 2 | 0 |
| 0815-0830 | 2 | 0 | 4 | 0 | 5 | 0 | 5 | 0 | 4 | 0 |
| 0830-0845 | 6 | 1 | 5 | 0 | 7 | 0 | 5 | 0 | 3 | 0 |
| 0845-0900 | 11 | 0 | 9 | 0 | 7 | 1 | 8 | 0 | 7 | 0 |

| | MON, MARCH 11, 2013 | | TUES, MARCH 12, 2013 | | WED, MARCH 13, 2013 | | THURS, MARCH 14, 2013 | | FRI, MARCH 15, 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-HR | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | |
| PERIOD | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT |
| 0700-0800 | 3 | 0 | 2 | 0 | 2 | 1 | 3 | 0 | 2 | 0 |
| 0715-0815 | 6 | 0 | 5 | 0 | 5 | 1 | 6 | 1 | 4 | 0 |
| 0730-0830 | 8 | 0 | 9 | 0 | 9 | 1 | 11 | 1 | 8 | 0 |
| 0745-0845 | 14 | 1 | 13 | 0 | 16 | 1 | 14 | 1 | 10 | 0 |
| 0800-0900 | 22 | 1 | 21 | 0 | 22 | 1 | 21 | 1 | 16 | 0 |

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978 PHONE

# DRIVEWAY STUDY - RESULTS

CLIENT: TASLIMI CONSTRUCTION COMPANY
PROJECT: 9378 WILSHIRE BOULEVARD - BEVERLY HILLS
DATES: MONDAY, MARCH 11 THRU FRIDAY, MARCH 15, 2013
PERIOD: 04:00 PM TO 06:00 PM

FILE: 1-DRWY-PM

| | MON, MARCH 11, 2013 | | TUES, MARCH 12, 2013 | | WED, MARCH 13, 2013 | | THURS, MARCH 14, 2013 | | FRI, MARCH 15, 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15-MIN | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | |
| PERIOD | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT |
| 0400-0415 | 0 | 1 | 2 | 3 | 1 | 3 | 1 | 2 | 2 | 1 |
| 0415-0430 | 3 | 2 | 2 | 1 | 0 | 3 | 0 | 4 | 2 | 3 |
| 0430-0445 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 7 |
| 0445-0500 | 1 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 4 |
| 0500-0515 | 0 | 2 | 0 | 4 | 0 | 4 | 1 | 4 | 2 | 6 |
| 0515-0530 | 0 | 5 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 2 |
| 0530-0545 | 0 | 9 | 2 | 8 | 0 | 5 | 1 | 8 | 1 | 3 |
| 0545-0600 | 1 | 10 | 0 | 9 | 1 | 9 | 1 | 8 | 0 | 9 |

| | MON, MARCH 11, 2013 | | TUES, MARCH 12, 2013 | | WED, MARCH 13, 2013 | | THURS, MARCH 14, 2013 | | FRI, MARCH 15, 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-HR | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | | S. CANON DR DRIVEWAY | |
| PERIOD | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT | ENTER | EXIT |
| 0400-0500 | 5 | 5 | 5 | 6 | 3 | 8 | 2 | 7 | 5 | 15 |
| 0415-0515 | 5 | 6 | 3 | 7 | 2 | 9 | 2 | 9 | 5 | 20 |
| 0430-0530 | 2 | 9 | 2 | 9 | 3 | 9 | 3 | 9 | 4 | 19 |
| 0445-0545 | 1 | 16 | 4 | 16 | 3 | 14 | 3 | 17 | 4 | 15 |
| 0500-0600 | 1 | 26 | 3 | 24 | 2 | 21 | 4 | 24 | 4 | 20 |

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626.446.7978

# APPENDIX F
# Study Intersection Analysis Worksheets – Existing (Year 2015) plus Project Conditions

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: D

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Added Vol: | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 402 | 86 | 84 | 479 | 156 | 93 | 1074 | 63 | 124 | 1749 | 69 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 402 | 86 | 84 | 479 | 156 | 93 | 1074 | 63 | 124 | 1749 | 69 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 402 | 86 | 84 | 479 | 156 | 93 | 1074 | 63 | 124 | 1749 | 69 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 402 | 86 | 84 | 479 | 156 | 93 | 1074 | 63 | 124 | 1749 | 69 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.51 | 0.49 | 1.00 | 2.83 | 0.17 | 1.00 | 2.89 | 0.11 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2414 | 786 | 1600 | 4534 | 266 | 1600 | 4618 | 182 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.25 | 0.05 | 0.05 | 0.20 | 0.20 | 0.06 | 0.24 | 0.24 | 0.08 | 0.38 | 0.38 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): 19.7 Worst Case Level Of Service: F[1058.2]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Added Vol: | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 19 | 11 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 8 | 7 | 25 | 4 | 4 | 34 | 20 | 1172 | 32 | 42 | 1937 | 60 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 8 | 7 | 25 | 4 | 4 | 34 | 20 | 1172 | 32 | 42 | 1937 | 60 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 8 | 7 | 25 | 4 | 4 | 34 | 20 | 1172 | 32 | 42 | 1937 | 60 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 1960 | 3309 | 407 | 2485 | 3295 | 676 | 1997 | xxxx | xxxxx | 1204 | xxxx | xxxxx |
| Potent Cap.: | 39 | 9 | 599 | 15 | 9 | 401 | 291 | xxxx | xxxxx | 587 | xxxx | xxxxx |
| Move Cap.: | 19 | 7 | 599 | 2 | 8 | 401 | 291 | xxxx | xxxxx | 587 | xxxx | xxxxx |
| Volume/Cap: | 0.42 | 0.94 | 0.04 | 1.73 | 0.52 | 0.08 | 0.07 | xxxx | xxxx | 0.07 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 18.3 | xxxx | xxxxx | 11.6 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 29 | xxxxx | xxxx | 18 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 4.7 | xxxxx | xxxxx | 5.7 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 519 | xxxxx | xxxxx | 1058 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | F | * | * | F | * | * | * | * | * | * | * |
| ApproachDel: | 518.7 | | | 1058.2 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.691 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 49 | Level Of Service: | B |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Added Vol: | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 10 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 131 | 37 | 52 | 140 | 71 | 26 | 1136 | 39 | 55 | 1903 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 58 | 131 | 37 | 52 | 140 | 71 | 26 | 1136 | 39 | 55 | 1903 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 131 | 37 | 52 | 140 | 71 | 26 | 1136 | 39 | 55 | 1903 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 58 | 131 | 37 | 52 | 140 | 71 | 26 | 1136 | 39 | 55 | 1903 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.78 | 0.22 | 1.00 | 0.66 | 0.34 | 1.00 | 2.90 | 0.10 | 1.00 | 2.92 | 0.08 |
| Final Sat.: | 1600 | 1248 | 352 | 1600 | 1062 | 538 | 1600 | 4641 | 159 | 1600 | 4677 | 123 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.10 | 0.11 | 0.03 | 0.13 | 0.13 | 0.02 | 0.24 | 0.24 | 0.03 | 0.41 | 0.41 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.281 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 8.4 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Added Vol: | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 5 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 30 | 8 | 6 | 19 | 14 | 21 | 63 | 2 | 5 | 224 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 30 | 8 | 6 | 19 | 14 | 21 | 63 | 2 | 5 | 224 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 30 | 8 | 6 | 19 | 14 | 21 | 63 | 2 | 5 | 224 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 30 | 8 | 6 | 19 | 14 | 21 | 63 | 2 | 5 | 224 | 10 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.22 | 0.62 | 0.16 | 0.15 | 0.49 | 0.36 | 0.24 | 0.74 | 0.02 | 0.02 | 0.94 | 0.04 |
| Final Sat.: | 166 | 452 | 120 | 116 | 368 | 271 | 196 | 588 | 19 | 18 | 796 | 36 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.05 | 0.05 | 0.05 | 0.11 | 0.11 | 0.11 | 0.28 | 0.28 | 0.28 |
| Crit Moves: | **** | | | | | **** | | **** | | | **** | |
| Delay/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.9 | 7.9 | 7.9 | 8.8 | 8.8 | 8.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.9 | 7.9 | 7.9 | 7.7 | 7.7 | 7.7 | 7.9 | 7.9 | 7.9 | 8.8 | 8.8 | 8.8 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.9 | | | 7.7 | | | 7.9 | | | 8.8 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.7 | | | 7.9 | | | 8.8 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.4 |

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.863 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 85 | Level Of Service: | D |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Added Vol: | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 125 | 406 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 111 | 1357 | 72 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 125 | 406 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 111 | 1357 | 72 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 125 | 406 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 111 | 1357 | 72 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 125 | 406 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 111 | 1357 | 72 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.73 | 0.27 | 1.00 | 2.84 | 0.16 | 1.00 | 2.85 | 0.15 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2767 | 433 | 1600 | 4544 | 256 | 1600 | 4558 | 242 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.25 | 0.06 | 0.06 | 0.17 | 0.17 | 0.10 | 0.38 | 0.38 | 0.07 | 0.30 | 0.30 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Added Vol: | 7 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 13 | 7 | 50 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 7 | 50 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 13 | 7 | 50 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2481 | 3499 | 641 | 2219 | 3497 | 510 | 1513 | xxxx | xxxxx | 1908 | xxxx | xxxxx |
| Potent Cap.: | 16 | 6 | 422 | 25 | 6 | 514 | 448 | xxxx | xxxxx | 316 | xxxx | xxxxx |
| Move Cap.: | 6 | 6 | 422 | 0 | 6 | 514 | 448 | xxxx | xxxxx | 316 | xxxx | xxxxx |
| Volume/Cap: | 2.28 | 1.23 | 0.12 | xxxx | 0.70 | 0.08 | 0.06 | xxxx | xxxx | 0.06 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.2 | xxxx | xxxxx | 0.2 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 13.6 | xxxx | xxxxx | 17.1 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | B | * | * | C | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 19 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 9.2 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 1589 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | F | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | 1589.4 | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.681 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 48 | Level Of Service: | B |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 1 | 0 | 1 | 0 0 1 | 0 | 1 | 0 2 1 | 0 | 1 | 0 2 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Added Vol: | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 7 | 3 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 131 | 55 | 34 | 160 | 43 | 37 | 1875 | 24 | 39 | 1434 | 30 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 131 | 55 | 34 | 160 | 43 | 37 | 1875 | 24 | 39 | 1434 | 30 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 131 | 55 | 34 | 160 | 43 | 37 | 1875 | 24 | 39 | 1434 | 30 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 131 | 55 | 34 | 160 | 43 | 37 | 1875 | 24 | 39 | 1434 | 30 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.70 | 0.30 | 1.00 | 0.79 | 0.21 | 1.00 | 2.96 | 0.04 | 1.00 | 2.94 | 0.06 |
| Final Sat.: | 1600 | 1127 | 473 | 1600 | 1261 | 339 | 1600 | 4739 | 61 | 1600 | 4702 | 98 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.12 | 0.12 | 0.02 | 0.13 | 0.13 | 0.02 | 0.40 | 0.40 | 0.02 | 0.31 | 0.30 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.362 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 9.0 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Added Vol: | 0 | 0 | 0 | 3 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 32 | 9 | 6 | 23 | 19 | 16 | 278 | 7 | 9 | 123 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 32 | 9 | 6 | 23 | 19 | 16 | 278 | 7 | 9 | 123 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 32 | 9 | 6 | 23 | 19 | 16 | 278 | 7 | 9 | 123 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 32 | 9 | 6 | 23 | 19 | 16 | 278 | 7 | 9 | 123 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.09 | 0.71 | 0.20 | 0.12 | 0.48 | 0.40 | 0.05 | 0.93 | 0.02 | 0.07 | 0.92 | 0.01 |
| Final Sat.: | 62 | 493 | 139 | 89 | 340 | 281 | 44 | 767 | 19 | 53 | 726 | 12 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.36 | 0.36 | 0.36 | 0.17 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |
| Delay/Veh: | 8.1 | 8.1 | 8.1 | 8.0 | 8.0 | 8.0 | 9.6 | 9.6 | 9.6 | 8.3 | 8.3 | 8.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.1 | 8.1 | 8.1 | 8.0 | 8.0 | 8.0 | 9.6 | 9.6 | 9.6 | 8.3 | 8.3 | 8.3 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.1 | | | 8.0 | | | 9.6 | | | 8.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.1 | | | 8.0 | | | 9.6 | | | 8.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 |

# APPENDIX G
# Study Intersection Analysis Worksheets – Future (Year 2018) Post-Project Conditions

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.914 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 107 | Level Of Service: | E |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 119 | 402 | 81 | 79 | 479 | 156 | 93 | 1064 | 63 | 124 | 1749 | 69 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 123 | 414 | 83 | 81 | 494 | 161 | 96 | 1096 | 65 | 128 | 1802 | 71 |
| Added Vol: | 0 | 23 | 5 | 5 | 19 | 0 | 0 | 141 | 0 | 0 | 175 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 123 | 437 | 88 | 86 | 513 | 161 | 96 | 1237 | 65 | 128 | 1977 | 71 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 123 | 437 | 88 | 86 | 513 | 161 | 96 | 1237 | 65 | 128 | 1977 | 71 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 123 | 437 | 88 | 86 | 513 | 161 | 96 | 1237 | 65 | 128 | 1977 | 71 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 123 | 437 | 88 | 86 | 513 | 161 | 96 | 1237 | 65 | 128 | 1977 | 71 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.52 | 0.48 | 1.00 | 2.85 | 0.15 | 1.00 | 2.90 | 0.10 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2436 | 764 | 1600 | 4561 | 239 | 1600 | 4633 | 167 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.27 | 0.06 | 0.05 | 0.21 | 0.21 | 0.06 | 0.27 | 0.27 | 0.08 | 0.43 | 0.43 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 7 | 7 | 24 | 4 | 4 | 34 | 20 | 1172 | 13 | 31 | 1937 | 60 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 7 | 7 | 25 | 4 | 4 | 35 | 21 | 1208 | 13 | 32 | 1996 | 62 |
| Added Vol: | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 132 | 19 | 11 | 174 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 8 | 8 | 26 | 4 | 5 | 35 | 21 | 1340 | 32 | 43 | 2170 | 62 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 8 | 8 | 26 | 4 | 5 | 35 | 21 | 1340 | 32 | 43 | 2170 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 8 | 8 | 26 | 4 | 5 | 35 | 21 | 1340 | 32 | 43 | 2170 | 62 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2209 | 3714 | 463 | 2778 | 3700 | 754 | 2232 | xxxx | xxxxx | 1372 | xxxx | xxxxx |
| Potent Cap.: | 25 | 5 | 551 | 9 | 5 | 356 | 236 | xxxx | xxxxx | 507 | xxxx | xxxxx |
| Move Cap.: | 0 | 4 | 551 | 0 | 4 | 356 | 236 | xxxx | xxxxx | 507 | xxxx | xxxxx |
| Volume/Cap: | xxxx | 2.13 | 0.05 | xxxx | 1.30 | 0.10 | 0.09 | xxxx | xxxx | 0.08 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.3 | xxxx | xxxxx | 0.3 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 21.7 | xxxx | xxxxx | 12.8 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | B | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 0 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.758 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 58 | Level Of Service: | C |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 57 | 131 | 37 | 52 | 140 | 70 | 26 | 1135 | 39 | 51 | 1893 | 50 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 59 | 135 | 38 | 54 | 144 | 72 | 27 | 1169 | 40 | 53 | 1950 | 52 |
| Added Vol: | 2 | 5 | 0 | 4 | 2 | 5 | 12 | 119 | 2 | 4 | 179 | 9 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 61 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 42 | 57 | 2129 | 61 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 61 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 42 | 57 | 2129 | 61 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 61 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 42 | 57 | 2129 | 61 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 61 | 140 | 38 | 58 | 146 | 77 | 39 | 1288 | 42 | 57 | 2129 | 61 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 1.00 | 0.65 | 0.35 | 1.00 | 2.90 | 0.10 | 1.00 | 2.92 | 0.08 |
| Final Sat.: | 1600 | 1258 | 342 | 1600 | 1048 | 552 | 1600 | 4648 | 152 | 1600 | 4667 | 133 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.11 | 0.11 | 0.04 | 0.14 | 0.14 | 0.02 | 0.28 | 0.28 | 0.04 | 0.46 | 0.46 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.295 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 8.5 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 29 | 8 | 6 | 19 | 13 | 19 | 63 | 2 | 5 | 224 | 5 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 11 | 30 | 8 | 6 | 20 | 13 | 20 | 65 | 2 | 5 | 231 | 5 |
| Added Vol: | 0 | 2 | 0 | 0 | 1 | 1 | 2 | 6 | 0 | 0 | 3 | 5 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 32 | 8 | 6 | 21 | 14 | 22 | 71 | 2 | 5 | 234 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 32 | 8 | 6 | 21 | 14 | 22 | 71 | 2 | 5 | 234 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 32 | 8 | 6 | 21 | 14 | 22 | 71 | 2 | 5 | 234 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 32 | 8 | 6 | 21 | 14 | 22 | 71 | 2 | 5 | 234 | 10 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.22 | 0.62 | 0.16 | 0.15 | 0.50 | 0.35 | 0.23 | 0.75 | 0.02 | 0.02 | 0.94 | 0.04 |
| Final Sat.: | 161 | 452 | 117 | 112 | 372 | 260 | 182 | 598 | 17 | 17 | 792 | 34 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.12 | 0.12 | 0.12 | 0.30 | 0.30 | 0.30 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 7.9 | 7.9 | 7.9 | 7.8 | 7.8 | 7.8 | 8.0 | 8.0 | 8.0 | 8.9 | 8.9 | 8.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.9 | 7.9 | 7.9 | 7.8 | 7.8 | 7.8 | 8.0 | 8.0 | 8.0 | 8.9 | 8.9 | 8.9 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.9 | | | 7.8 | | | 8.0 | | | 8.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.8 | | | 8.0 | | | 8.9 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.4 |

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Doheny Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.944 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 128 | Level Of Service: | E |

| Street Name: | Doheny Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 122 | 404 | 100 | 92 | 473 | 74 | 160 | 1739 | 98 | 109 | 1354 | 70 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 126 | 416 | 103 | 95 | 487 | 76 | 165 | 1792 | 101 | 112 | 1395 | 72 |
| Added Vol: | 3 | 23 | 0 | 0 | 30 | 0 | 0 | 212 | 0 | 2 | 226 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 129 | 439 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 114 | 1621 | 74 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 129 | 439 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 114 | 1621 | 74 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 129 | 439 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 114 | 1621 | 74 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 129 | 439 | 103 | 95 | 517 | 76 | 165 | 2004 | 101 | 114 | 1621 | 74 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.74 | 0.26 | 1.00 | 2.86 | 0.14 | 1.00 | 2.87 | 0.13 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 2789 | 411 | 1600 | 4570 | 230 | 1600 | 4590 | 210 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.27 | 0.06 | 0.06 | 0.19 | 0.19 | 0.10 | 0.44 | 0.44 | 0.07 | 0.35 | 0.35 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Almont Dr & Wilshire Blvd

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F[xxxxx]

| Street Name: | Almont Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 7 | 40 | 6 | 4 | 40 | 27 | 1879 | 29 | 19 | 1481 | 32 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 6 | 7 | 41 | 6 | 4 | 41 | 28 | 1936 | 30 | 20 | 1526 | 33 |
| Added Vol: | 7 | 2 | 10 | 0 | 2 | 0 | 0 | 212 | 0 | 0 | 222 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 13 | 9 | 51 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 9 | 51 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 13 | 9 | 51 | 6 | 6 | 41 | 28 | 2148 | 30 | 20 | 1748 | 33 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 2843 | 4039 | 731 | 2580 | 4037 | 599 | 1781 | xxxx | xxxxx | 2178 | xxxx | xxxxx |
| Potent Cap.: | 8 | 3 | 369 | 13 | 3 | 450 | 353 | xxxx | xxxxx | 248 | xxxx | xxxxx |
| Move Cap.: | 0 | 2 | 369 | 0 | 2 | 450 | 353 | xxxx | xxxxx | 248 | xxxx | xxxxx |
| Volume/Cap: | xxxx | 3.90 | 0.14 | xxxx | 2.59 | 0.09 | 0.08 | xxxx | xxxx | 0.08 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.3 | xxxx | xxxxx | 0.3 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 16.1 | xxxx | xxxxx | 20.8 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | C | * | * | C | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 0 | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 La Peer Dr & Wilshire Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.754 |
| Loss Time (sec): | 10 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 58 | Level Of Service: | C |

| Street Name: | La Peer Dr | | | | | | Wilshire Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 1 | 0 | 1 | 0 0 | 1 | 0 | 2 1 | 0 | 1 | 0 2 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 54 | 131 | 52 | 34 | 160 | 43 | 36 | 1868 | 21 | 39 | 1434 | 30 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 56 | 135 | 54 | 35 | 165 | 44 | 37 | 1925 | 22 | 40 | 1477 | 31 |
| Added Vol: | 2 | 3 | 3 | 11 | 5 | 14 | 8 | 209 | 5 | 0 | 207 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 138 | 57 | 46 | 170 | 58 | 45 | 2134 | 27 | 40 | 1684 | 37 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 58 | 138 | 57 | 46 | 170 | 58 | 45 | 2134 | 27 | 40 | 1684 | 37 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 138 | 57 | 46 | 170 | 58 | 45 | 2134 | 27 | 40 | 1684 | 37 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 58 | 138 | 57 | 46 | 170 | 58 | 45 | 2134 | 27 | 40 | 1684 | 37 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.71 | 0.29 | 1.00 | 0.74 | 0.26 | 1.00 | 2.96 | 0.04 | 1.00 | 2.94 | 0.06 |
| Final Sat.: | 1600 | 1135 | 465 | 1600 | 1191 | 409 | 1600 | 4741 | 59 | 1600 | 4697 | 103 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.12 | 0.12 | 0.03 | 0.14 | 0.14 | 0.03 | 0.45 | 0.45 | 0.03 | 0.36 | 0.36 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |





9000 Wilshire Boulevard, Beverly Hills - Office Building
Future Post-Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Almont Dr & Charleville Blvd

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.383 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | 9.2 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Almont Dr | | | | | | Charleville Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 4 | 32 | 9 | 3 | 22 | 13 | 16 | 278 | 7 | 9 | 123 | 2 |
| Growth Adj: | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Initial Bse: | 4 | 33 | 9 | 3 | 23 | 13 | 16 | 286 | 7 | 9 | 127 | 2 |
| Added Vol: | 0 | 2 | 0 | 3 | 2 | 6 | 0 | 6 | 0 | 0 | 8 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 35 | 9 | 6 | 25 | 19 | 16 | 292 | 7 | 9 | 135 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 35 | 9 | 6 | 25 | 19 | 16 | 292 | 7 | 9 | 135 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 35 | 9 | 6 | 25 | 19 | 16 | 292 | 7 | 9 | 135 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 35 | 9 | 6 | 25 | 19 | 16 | 292 | 7 | 9 | 135 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.09 | 0.72 | 0.19 | 0.12 | 0.49 | 0.39 | 0.05 | 0.93 | 0.02 | 0.06 | 0.93 | 0.01 |
| Final Sat.: | 58 | 493 | 131 | 85 | 342 | 269 | 43 | 764 | 19 | 50 | 723 | 11 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.38 | 0.38 | 0.38 | 0.19 | 0.19 | 0.19 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Delay/Veh: | 8.2 | 8.2 | 8.2 | 8.1 | 8.1 | 8.1 | 9.9 | 9.9 | 9.9 | 8.4 | 8.4 | 8.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 8.2 | 8.2 | 8.1 | 8.1 | 8.1 | 9.9 | 9.9 | 9.9 | 8.4 | 8.4 | 8.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.2 | | | 8.1 | | | 9.9 | | | 8.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 8.1 | | | 9.9 | | | 8.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 | 0.6 | 0.6 | 0.2 | 0.2 | 0.2 |