

То:	Office of Planning and Research 1400 Tenth Street, Room 121 Sacramento, CA 95814	ch From :	City of Garden Grove Community Development Department Planning Services Division 11222 Acacia Parkway Garden Grove, CA92840
	✓ County Clerk County of County 12 Civic Center Plaza, Room 10 Santa Ana, CA 92701	-	
Proje	ect Title: Four (4) Detached Single Fan	mily Homes	
Proje	ct Location - Specific: 12381 Nelson	ı Street	
Proje	ct Location - City: <u>Garden Grove</u> P	roject Location - County: <u>C</u>	ounty of Orange
Desci	ription of Nature, Purpose, and B	eneficiaries of Project: <u>4 (f</u> o	our) single family detached units.
Name Divisio		roject: <u>City of Garden Grove</u>	Community Development Department, Planning
Name	e of Project Applicant: David Nguye	en. 1570 Corporate Drive, Suite	B, Costa Mesa California 92626
Exem	pt Status: (check one)		
	Ministerial (Sec. 21080(b)(1); 15268)	;	
	Declared Emergency (Sec. 21080(b)(3	3); 15269(a));	
	Emergency Project (Sec. 21080(b)(4)	; 15269(b)(c));	
✓	Categorical Exemption. State type and	l section number: Class 32 (infi	ll Exemption)
	Statutory Exemptions. State code num	mber:	
Reaso	ons why project is exempt: The pr	roposed project will qualify fo	r a Class 32 Infill Exemption and a CEQA Genera
Rule 1	Exemption. The proposed project wi	ill not require any zone chan	ge or general plan amendment. In addition, the
propo	sed residential development will not re	sult in any significant adverse	environmental impacts.
Load	Agency		
	act Person:	Area Code/Telepl	none/Extension:
1.	ed by applicant: Attach document of exemption findin . Has a Notice of Exemption been filed	-	g the project? ✔ Yes □ No
Signat	ture:	Title:	Date:
✓ Sig	ned by the Lead Agency	☐ Signed by the Applicant	

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



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ATTACHMENT FOR THE NOTICE OF CEQA EXEMPTION (12381 Nelson Street, Garden Grove, California)



PREPARED FOR:

CITY OF GARDEN GROVE COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION 11222 ACACIA PARKWAY GARDEN GROVE, CALIFORNIA 92840

PREPARED BY:

BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING 16388 EAST COLIMA ROAD HACIENDA HEIGHTS, CALIFORNIA 91745

APRIL 30, 2015

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1. Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, a Notice of Exemption (NOE) may be filed if the City of Garden Grove, in its capacity as the lead agency, determines that a proposed action or project is exempt from CEQA. According to the CEQA Guidelines, a NOE must contain the following information:

- A brief description of the proposed action or project;
- A finding that the proposed action or project is exempt, including a citation of the State CEQA Guidelines section or statute under which the project is found to be exempt; and,
- A brief statement in support of the finding.1

This NOE provides a description of the proposed project (four single-family units), indicates the applicable sections of CEQA that support the findings for the CEQA exemption, and discusses the lead agency's findings that are applicable to the proposed project.

2. PROJECT OVERVIEW

The proposed project site is located at 12381 Nelson Street in the City of Garden Grove. The project site is located on the west side of Nelson Street between Allen Drive to the north, and Lampson Avenue to the south. A regional location map is provided in Exhibit 1, a citywide map is provided in Exhibit 2, a vicinity map is provided in Exhibit 3, and an aerial photograph is provided in Exhibit 4. Key project elements include the following:

- The proposed project will involve the construction of four detached single family units within a 39,340 square foot (0.9-acre) site.²
- Access to the project site will be provided by a single set of curb cuts located along the west side of Nelson Street. A private internal drive aisle will extend along the southerly portion of the site which will provide access to the individual units. A site plan is provided in Exhibit 5.
- All four single-family homes will be two stories in height, consist of five bedrooms and four and a half bathrooms, and will have a maximum height of 32 feet. The total floor area of the four homes will consist of 19,320 square feet.
- Each unit will also include a three-car garage. An additional 18 spaces for guest parking. Six guest parking spaces will be located within the private internal roadway and the remaining 12 will be located on the private driveways.

In addition, a topographic map is provided in Exhibit 6 (this map is referred to in Biological Resources).

¹ CEQA Guidelines California Code of Regulations, Title 14, Division 6, Chapter 3, Article 19. Categorical Exemptions. (Section 15300)

² Nugen Inc. Site Plan. December 8, 2014.



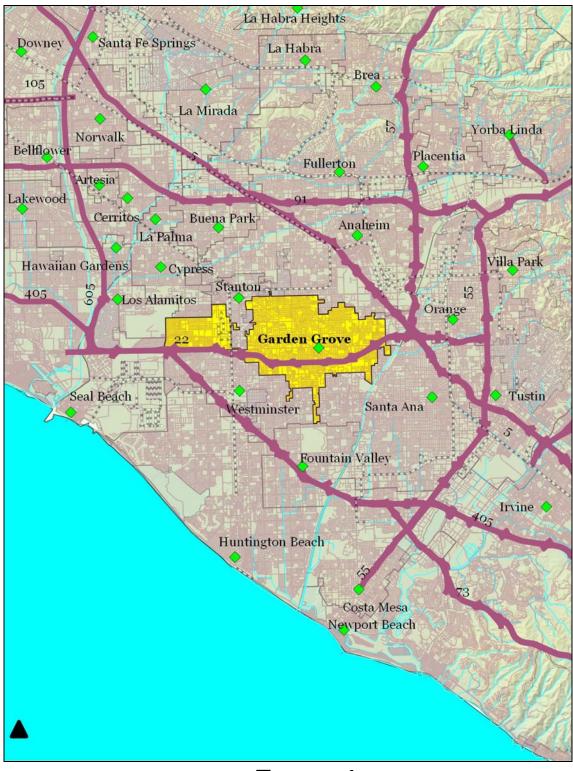


EXHIBIT 1
REGIONAL LOCATION
SOURCE: QUANTUM GIS



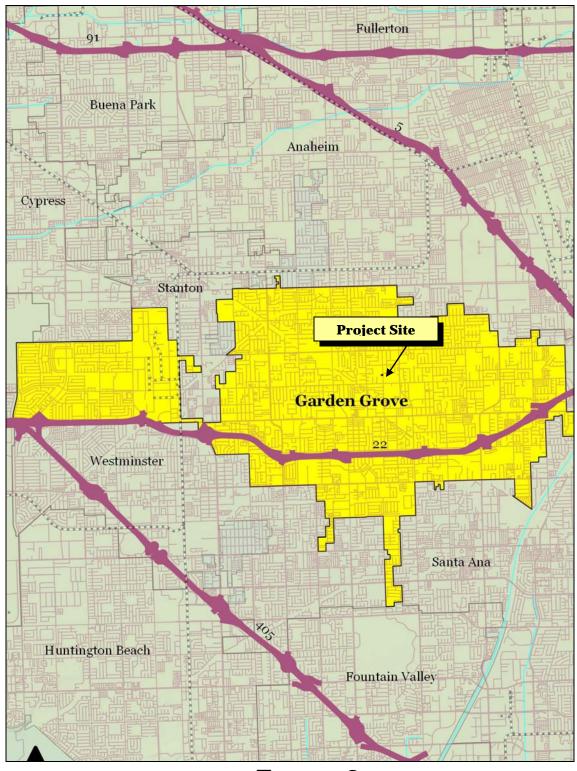


EXHIBIT 2
CITYWIDE MAP
SOURCE: QUANTUM GIS



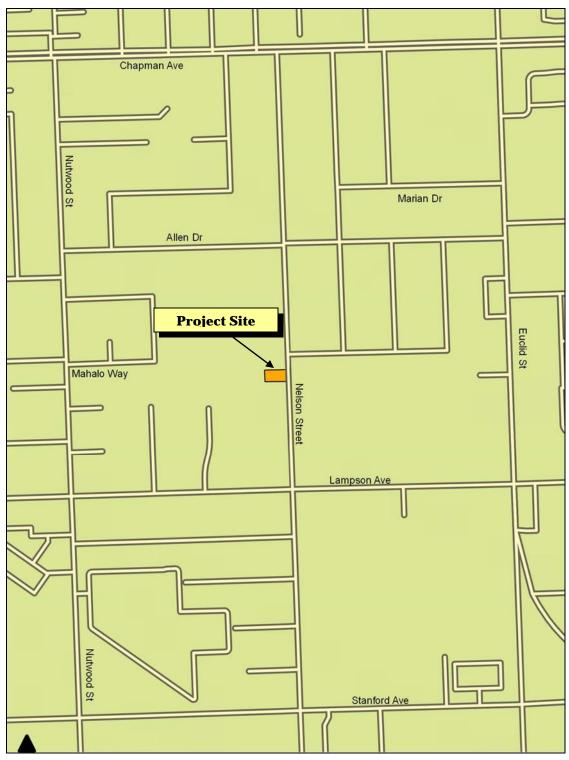


EXHIBIT 3
VICINITY MAP
SOURCE: QUANTUM GIS

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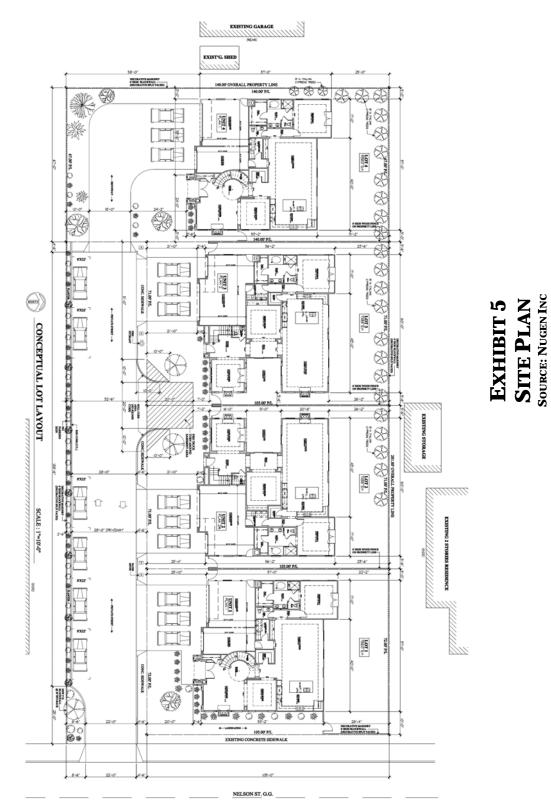




EXHIBIT 4 AERIAL PHOTOGRAPH

SOURCE: GOOGLE MAPS





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EXHIBIT 6 TOPOGRAPHIC MAP

SOURCE: UNITED STATES GEOLOGICAL SURVEY

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3. APPLICABLE CEQA EXEMPTION(S)

The City of Garden Grove has reviewed the proposed project and has determined that it is categorically exempt and qualifies for a *Class 32 Exemption (Infill Exemption)* and a CEQA General Rule Exemption.

3.1 CLASS 32 EXEMPTIONS (URBAN INFILL)

The Class 32 exemption applies to projects that are infill developments that meet the following conditions:

- The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations;
- The proposed undertaking will occur within the city limits on a project site of not more than five acres that is substantially surrounded by urban uses;
- The project site has no value as habitat for endangered, rare or threatened species;
- The approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and,
- The site can be adequately served by all required utilities and public services.3

3.2 CEQA GENERAL RULE EXEMPTION

The City of Garden Grove has determined that the proposed project is exempt based on Section 15061 of CEQA which states the following:

"The activity is covered by a general rule that CEQA applies only to projects which have a potential for causing a *significant effect* on the environment. Where it can be seen with certainty that there is no possibility that an activity in question may have a significant effect on the environment, the activity is not subject to CEQA."

4. FINDINGS SUPPORTING THE APPLICABLE CEQA EXEMPTION(S)

The City of Garden Grove determined, following an evaluation of the proposed project, the proposed project would not result in any significant effects on the environment. This determination is based on the following:

• The proposed project is consistent with both the City of Garden Grove General Plan land use designation that is applicable to the site and the City of Garden Grove Zoning Ordinance and Map. No General Plan

³ CEQA Guidelines California Code of Regulations, Title 14, Division 6, Chapter 3, Article 19. Categorical Exemptions. (Section 153332).

⁴ Ibid. (Subsection (b)(3).

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Amendment or Zone Change will be required to accommodate the proposed project. In addition, the proposed project meets the development standards of the City's code.⁵

- The proposed project occurs within City of Garden Grove corporate boundaries on a site of less than five acres.
- The proposed project site is surrounded by development on all sides. The site's small size and its isolation from other open space areas limit its utility as a habitat or an animal migration corridor. No native or natural habitats are found within the project site or on adjacent parcels.
- The approval of the proposed project would not result in any significant effects relating to traffic, noise, air quality, or water quality. The environmental analysis that was completed to provide support for this NOE's findings are provided herein on Page 17.
- The proposed project site can be adequately served by all required utilities and public services. No significant adverse cumulative impacts will result from the proposed project's implementation.

Furthermore, the City of Garden Grove makes the following additional findings in support the CEQA exemption for the proposed project.

- No significant dislocation of on-site or off-site uses will be required to accommodate the proposed project.
- The proposed project site does not contain any sensitive environmental resources. The surrounding properties have been disturbed as part of previous development.
- The proposed project site is located within an urbanized area of the City of Garden Grove. No scenic resources or scenic corridor will be adversely affected by the proposed project.
- The proposed project site is not located within an area, nor does it include a site, the Department of Toxic Substances Control (DTSC) and the Secretary for Environmental Protection has identified as being affected by hazardous wastes.
- The proposed project will not result in any adverse impacts on any designated or protected historic resources.
- The proposed project will not require any review by a State trustee or responsible agency.

⁵ City of Garden Grove. Title 9, Land Use. Chapter 9.08 Single-Family Residential Development Standards. http://www.qcode.us/codes/gardengrove/view.php?topic=9-9_08-9_08_040&frames=off

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5. DISCUSSION OF LEAD AGENCY'S FINDINGS

The City of Garden Grove considered the following facts that further support the Lead Agency's findings that support a NOE for the proposed project:

- The proposed project will be confined to the project site and no dislocation of off-site uses will occur.
- The proposed project does not have the potential for creating any significant environmental effect. The basis for this determination was discussed in the preceding section.
- The proposed project will not result in any impacts to sensitive plant or animal resources.
- The proposed project will not result in any impacts on sensitive resources; result in any cumulative
 impacts; have the potential for damaging scenic resources; involve the placement of a project over a site
 the Department of Toxic Substances Control (DTSC) and the Secretary for Environmental Protection has
 identified as being affected by hazardous waste; or result in any impacts on historic resources.
- The lead agency, based on a rule of common sense, "has determined that there is no possibility" that the proposed project will result in significant effects.⁶

6. PREPARERS

The following individuals were responsible for the preparation of this NOE:

City of Garden Grove

Community Development Department, Planning Division Christopher Chung, Associate Planner

Project CEQA Consultant

Blodgett/Baylosis Environmental Planning Marc Blodgett, Project Manager Bryan Hamilton, Project Planner

⁶ Guidelines for the Implementation of the California Environmental Quality Act, Article 5. § 15061(b)(3)

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ENVIRONMENTAL ANALYSIS AND CHECKLIST

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AESTHETIC IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse affect 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 that would adversely affect day or nighttime views in the area?				×

Discussion of Findings

- **A.** There are no scenic views or view-sheds in the area due to the current level of development. In addition, the proposed project will involve the demolition of the existing vacant and dilapidated structures in order to accommodate the proposed residential units. The City will also require the on-site improvements to be maintained at all times as pursuant to the City's property maintenance regulations. Therefore, the proposed project will not obstruct any significant views or view-sheds in the area and no impacts will occur.
- **B.** The project site is currently developed and the trees present on-site consist of species that are commonly found in an urban environment. There are no rock outcroppings and no protected or designated historic structures on-site. In addition, there are no City or State designated scenic highways located in the vicinity of the project site. As a result, no impacts will occur.
- **C.** As stated previously, the proposed project involves the demolition of the existing on-site improvements in order to accommodate the proposed residential units. The existing on-site structures are in a poor state of maintenance and vacant. Once complete, the proposed project will improve the area's visual appearance. As a result, no impacts will occur.
- **D.** The proposed project will not create a new source of light and glare in the area over what was generated by the previous use. Furthermore, any light spillover emanating from the residential units will be shielded from the adjacent uses by the new six-foot high masonry block wall and 15-foot high Italian Cypress Trees along the project site's northern property line. Lastly, the proposed project is considered to be a light sensitive land use. As a result, no light and glare impacts will result.

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- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- California Department of Transportation. *California Scenic Highway Mapping System*. http://www.dot.ca.gov/hq/LandArch/scenic_highways/
- Nugen Inc. Site Plan. December 8, 2014.

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AGRICULTURE AND FORESTRY RESOURCES IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), to a non-agricultural use?				×
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				×
c) Would the project conflict with existing zoning for or cause rezoning of, forest land (as defined in Public Resources Code §4526), or zoned timberland production (as defined by Government Code §51104[g])?				×
d) Would the project result in the loss of forest land or the conversion of forest land to a non-forest use?				×
e) Involve other changes in the existing environment that, due to their location or nature, may result in conversion of farmland to non-agricultural use?				×

Discussion of Findings

- **A.** According to the California Department of Conservation, the City of Garden Grove does not contain any areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As a result, no impacts to important farmland soils will occur with the implementation of the proposed project.
- **B.** The City of Garden Grove Municipal code permits agricultural uses within the R-1 zone. The proposed project will not result in any net loss in the amount of land zoned for agriculture since no zone change is necessary. In addition, according to the California Department of Conservation Division of Land Resource Protection, the project site is not subject to a Williamson Act Contract. As a result, no impacts on existing or future Williamson Act Contracts will result from the approval and subsequent implementation of the proposed project.
- **C.** The City's General Plan and Zoning Ordinance do not specifically provide for any forest land preservation. As a result, no impacts on forest lands or timber resources will result from the proposed project's implementation.
- **D.** No loss or conversion of existing forest lands will result from the implementation of the proposed project. As a result, no impacts are anticipated with the proposed project's implementation.
- **E.** No agricultural activities or farmland uses are located on the project site. The proposed project will not involve the conversion of any existing producing farmland area to an urban use and no impacts are anticipated.

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- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Important Farmland in California 2010*.
 ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2010/fmmp2010_08_11.pdf.
- California Department of Conservation. *State of California Williamson Act Contract Land.* ftp://ftp.consrv.ca.gov/pub/dlrp/WA/2012%20Statewide%20Map/WA 2012 8x11.pdf
- California Department of Conservation. *State of California Williamson Act Contract Land.* tp://ftp.consrv.ca.gov/pub/dlrp/WA/2012%20Statewide%20Map/WA 2012 8x11.pdf
- City of Garden Grove. Title 9, Land Use. Chapter 9.08 Single-Family Residential Development Standards. http://www.qcode.us/codes/gardengrove/view.php?topic=9-9_08-9_08_020-9_08_020_030&frames=off

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AIR QUALITY IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				×
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			×	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in 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?				×

Discussion of Findings

- **A.** The proposed project will not affect any regional population, housing, and employment projections prepared for the City by the Southern California Association of Governments (SCAG). Specific criteria for determining a project's conformity with the AQMP is defined in Chapter 12 of the Air Quality Management Plan (AQMP) and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook. *Criteria 1* considers whether or not a project results in an increase in the frequency or severity of an existing air quality violation or contributes to the continuation of an existing air quality violation. *Criteria 2* considers whether a project will exceed the assumptions included in the AQMP or other growth projections relevant to the AQMP's implementation. Construction related activities will not lead to an exceedance for AQMD daily thresholds for significance due to the size of the project site and the scale of the proposed project. In addition, the proposed project will add an additional 16 residents to the City. The population growth associated with the project has already been accounted for in the latest growth forecast projections released by SCAG for the 2012 Regional Transportation Plan. As a result, no impacts will occur.
- **B.** An air quality analysis determined that the project's long-term emissions will be less than significant. A computer air quality analysis tool (CalEEMod V.2013.2.2) was used to determine the amount of short-term and long-term emissions. The proposed project's operational emissions are projected to be approximately 2.08 pounds per day (lbs/day) of ROG, 0.50 lbs/day of NOx, 4.19 lbs/day of CO, levels that are insignificant for SO2, 0.60 lbs/day of PM10, and 0.39 lbs/day of PM2.5. The analysis determined that the emissions from the proposed project would not exceed the SCAQMD's daily emissions thresholds (Note: the air quality calculations are provided in Appendix A). As a result, the impacts were found to be less than significant.

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Discussion of Findings (continued)

- **C.** As indicated in the previous section, the emissions (construction and operational) were determined to be less than significant. As a result, the impacts were found to be less than significant.
- **D.** Sensitive receptors refer to land uses and/or activities that are especially sensitive to poor air quality. The project site is surrounded by sensitive receptors on all sides. Moreover, the proposed project itself is a sensitive receptor. The project will generate minimal traffic and, as a result, is not expected to result in the creation of any hot-spots that would exceed the State's one-hour or eight-hour standards for carbon monoxide. As a result, no impacts are anticipated.
- **E.** The proposed residential project will not generate any odors that would affect surrounding development. As a result, no impacts are anticipated.

Sources

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- Blodgett/Baylosis Environmental Planning. Calculation of Air Emissions (The computer model, California Emission Estimator Model Version 2013.2.2 [CalEEMod], developed by the California Air Resources Board was used in the analysis).
- South Coast Air Quality Management District, Final 2012 Air Quality Plan, Adopted June 2012.
- South Coast Air Quality Management District. *CEQA Air Quality Handbook.* April 1993 [as amended 2009]. Table 11-4.
- South Coast Air Quality Management District. AQMD Rules and Regulation Handbook. Rule 1155 adopted December 4, 2009.
- Southern California Association of Governments Regional Transportation Plan, Growth Forecast Appendix. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP GrowthForecast.pdf
- United States Census Bureau. *State & County QuickFacts, Garden Grove (city), California*. http://quickfacts.census.gov/qfd/states/06/0629000.html

Please Note: The computer work sheets are included in the Appendix.

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BIOLOGICAL RESOURCES IMPACTS. Would the project have a substantial adverse effect:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?				×
b) On any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				×
c) 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) In interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites?				×
e) In conflicting with any local policies or ordinances, protecting biological resources, such as a tree preservation policy or ordinance?				×
f) By conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				×

Discussion of Findings

- **A.** A review of the California Department of Fish and Wildlife California Natural Biodiversity Database (CNDDB) Bios Viewer for the Anaheim Quadrangle (the City of Garden Grove is located within the Anaheim quadrangle) indicated that there are four threatened or endangered species located within the Anaheim Quadrangle. The project site is not conducive for the survival of any of the special status species identified by the California Department of Wish and Wildlife because the site and surrounding areas are fully developed and contain no areas of natural open space. As a result, no impacts are anticipated to occur.
- **B.** A review of the Wetlands Mapper available on the United States Fish and Wildlife Service website indicated that there are no wetlands or riparian habitat present on-site. The project site and the surrounding properties are developed and do not contain any natural or protected natural plant communities or habitats. Therefore, the proposed project will not affect any natural riparian habitats and no impacts are anticipated.

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Discussion of Findings (continued)

- **C.** As indicated in Section B above, there are no wetlands or riparian habitat present on-site. In addition, there are no bodies of water located within or around the project site. As a result, no impacts will occur.
- **D.** The animal species common to the site and the surrounding area are typical of those found in an urbanized setting. No areas of the immediate vicinity of the project site function as a wildlife movement corridor since the project site does not connect natural open space areas. Since the project site does not function as a wildlife corridor, no impacts will occur.
- **E.** The City of Garden Grove does not have a tree preservation ordinance. In addition, the entire project site contains mature trees that will need to be removed to facilitate construction of the proposed project. The Applicant will install new landscaping and trees upon completion of construction activities. The addition of the new landscaping will mitigate any potential negative effects associated with the removal of the existing trees and vegetation. As a result, no impacts will occur.
- **F.** The project site is not located within an area governed by a habitat conservation or community conservation plan. As a result, no impacts on local, regional, or State habitat conservation plans will result from the proposed project's implementation.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- California Department of Fish and Wildlife. Bios Viewer. https://map.dfg.ca.gov/bios/?tool=cnddbQuick
- U.S. Fish and Wildlife Service. Wetlands Mapper. http://www.fws.gov/wetlands/data/mapper.HTML
- Refer to Exhibit 6 included on Page 13.

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CULTURAL RESOURCES IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines?				×
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?				×
c) Directly or indirectly destroy a unique paleontological resource, site or unique geologic feature?				×
d) Disturb any human remains, including those interred outside of formal cemeteries?				×

Discussion of Findings

- **A.** The project site does not contain any structures listed in the State or National registers. In addition, the project site does not contain any structures determined to be locally significant in the City's General Plan. As a result, no impacts will occur.
- **B.** The project site has been previously developed. No archaeological or historical resources are expected to be found on-site due to past grading, excavation, and development activities. As a result, no impacts are anticipated.
- **C.** The potential for paleontological resources in the area is considered low due to the past disturbances and the recent alluvium that underlies the project site. Thus, the proposed project will not impact any paleontological resources.
- **D.** There are no cemeteries located in the immediate area that would be affected by the proposed project. In addition, no human remains are anticipated to be encountered during construction activities. As a result, no impacts are anticipated to occur.

- Blodgett/Baylosis Environmental Planning. *Site Survey.* The survey was conducted on April 23, 2015.
- California Department of Parks and Recreation. California Historical Resources. http://ohp.parks.ca.gov/ ListedResources

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GEOLOGY IMPACTS. Would the project result in or expose people to potential impacts involving:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault (as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault), ground—shaking, liquefaction, or landslides?			×	
b) Substantial soil erosion or the loss of topsoil?				×
c) Location on a geologic unit or a soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				×
d) Location on expansive soil, as defined in California Building Code (2001), creating substantial risks to life or property?				×
e) 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?				×

Discussion of Findings

- **A.** A list of cities and counties affected by Alquist-Priolo Earthquake Fault Zones is available on the State's Department of Conservation website. According to the California Department of Conservation website, the City of Garden Grove is not located within an Alquist-Priolo Fault Zone. The project site is not located near an active fault and no impacts regarding fault rupture and ground shaking will occur. The project site is located within a liquefaction zone; however, the risk is no greater at the project site than for the rest of the City. Lastly, the project site is not located in an area that is at risk of landslides. As a result, the impacts are anticipated to be less than significant.
- **B.** Previous construction activities altered the underlying soils. Given the developed character of the project area and the limited area of disturbance, no impacts related to expansive soil erosion or loss of topsoil are anticipated.
- **C.** As stated above, the project site is currently developed and the underlying soil's natural characteristics were altered during previous construction related activities. In addition, the potential for soil subsidence and lateral spreading is low considering the site's previous disturbance. As a result, no impacts are anticipated.

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Discussion of Findings (continued)

The project site is located in an area that is subject to liquefaction; however, the risk is no greater at the project site than for the rest of the City. As a result, no impacts will occur.

- **D.** Given the developed character of the surrounding parcels, no significant adverse constraints related to expansive soils are anticipated. The existing improvements within the project site also support this conclusion. As a result, no impacts are anticipated.
- **E.** No septic tanks will be used as part of the proposed project. As a result, no impacts associated with the use of septic tanks will occur as part of the proposed project's implementation.

- California Department of Conservation. Table 4, Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of January 2010. http://www.conservation.ca.gov/cgs/rghm/ap/Pages/affected.aspx
- Subsidence Support. What Causes House Subsidence? http://www.subsidencesupport.co.uk/what-causes-subsidence.html

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GREENHOUSE GAS EMISSIONS IMPACTS. Would the project

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Result in the generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			×	
b) Increase the potential for conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gasses?				×

Discussion of Findings

- **A.** The passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, established the California target to achieve reductions in GHG to 1990 GHG emission levels by the year 2020. The proposed project is an infill use. In addition, the proposed project will not result in the generation of any significant daily CO₂ emissions. As a result, the impacts related to additional greenhouse gas emissions resulting from the proposed project's implementation are considered to be less than significant.
- **B.** The SCAQMD has recommended several GHG thresholds of significance. These thresholds include 1,400 metric tons per year of CO2E for commercial projects, 3,500 tons per year for residential projects, and 3,000 tons per year for mixed-use projects. The proposed project will generate approximately 87.6 metric tons per year of CO2E which is below the threshold. The proposed project will not involve or require any variance from an adopted plan, policy, or regulation governing GHP emissions. As a result, no impacts related to a potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gasses are anticipated.

- Blodgett/Baylosis Environmental Planning. Calculation of Air Emissions (The computer model, California Emission Estimator Model Version 2013.2.2. [CalEEMod], developed by the California Air Resources Board was used in the analysis).
- California, State of. OPR Technical Advisory CEQA and Climate Change: Addressing Climate Change through the California Environmental Quality Act (CEQA) Review. June 19, 2008.

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HAZARDS AND HAZARDOUS MATERIALS IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				×
b) Create a significant hazard to the public or the environment or result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				×
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			×	
d) Be located on a site, which is included on a list of hazardous 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) Be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?				×
f) Within the vicinity of a private airstrip, 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 response plan or emergency evacuation plan?				×
h) Expose people or structures to a significant risk of loss, injury, or death involving wild lands fire, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?				×

Discussion of Findings

A. The proposed project will involve the construction of four residential units. Given the nature of the proposed development, the use of any hazardous materials will be limited to those that are commercially available and typically used in a household setting for routine cleaning and maintenance. As a result, no impacts are expected.

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Discussion of Findings (continued)

- **B.** Due to the nature of the proposed project, the use of any hazardous materials will be limited to those that are commercially available and typically used in a household setting. As a result, no impacts will occur.
- **C.** The project site is located across the street from Walter C Ralston Intermediate School. While the project's future occupants will not be involved in the handling or transporting hazardous waste. Asbestos containing materials and lead paint may be found around pipes and in the existing buildings. The building contractors will adhere to all pertinent Federal, State, and Local regulations governing the handling and transport of materials that contain lead based paint and asbestos. As a result, the impacts are anticipated to be less than significant.
- **D.** The Environmental Protection Agency's (EPA's) Environfacts Database was consulted to identify EPA-regulated facilities within the project area. The proposed project site is not included on this list. In addition, a search was conducted through the California Department of Toxic Substances Control Envirostor website to identify whether the project site is listed in the database as a Cortese site. The project site is not identified on the list. As a result, no impacts will occur.
- **E.** The project site is not located within two miles of an operational public airport. As a result, the proposed project will not present a safety hazard related to aircraft or airport operations at a public use airport to people residing or working in the project area and no impacts will occur.
- **F.** The project site is not located within two miles of an operational private airport or airstrip. As a result, no impacts will result from the approval and subsequent implementation of the proposed project.
- **G.** No streets will be blocked during construction and access to neighboring properties will be maintained at all times. As a result, no impacts on emergency response or evacuation are expected with the implementation of the proposed project.
- **H.** The project site and the surrounding properties are developed with no risk of wild fire associated with natural vegetation. The site is covered over by asphalt and the adjacent parcels are improved. No areas of native vegetation are found in the surrounding parcels and, as a result, there is no wildfire risk from off-site locations.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- United States Environmental Protection Agency. *Environfacts Database, Multisystem Search.* www.epa.gov/envirofw/
- California, State of, Department of Toxic Substances Control, *DTSC's Hazardous Waste and Substances Site List Site Cleanup Cortese List)*, 2009.
- Google Earth. Site accessed April 28, 2015.

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HYDROLOGY AND WATER QUALITY IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?				×
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge in such a way that would cause a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				×
c) Substantially alter the existing drainage pattern of the site or area, including 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, in a manner that would result in flooding on or off-site?				×
e) Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				×
f) 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 that would impede or redirect flood flows?				×
i) Expose people or structures to a significant risk of flooding because of dam or levee failure?				×
j) Result in inundation by seiche, tsunami, or mudflow?				×

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Discussion of Findings

- **A.** Although the site is developed, there are areas that are covered over in impervious surfaces (landscaping). The new development will be required to conform to the most recent City requirements governing pollutants in surface water runoff. As a result, no impacts are anticipated.
- **B.** Grading activities are not anticipated to encounter and deplete groundwater supplies from any underground aquifer since the excavation will be relatively shallow. In addition, the proposed project will be connected to the City's utility lines and is not anticipated to deplete groundwater supplies through the consumption of the water (water consumption impacts are analyzed herein the Utilities Impacts section). A search was conducted through the Regional Water Quality Control Board's on-line database Geotracker to identify the presence of any natural underground water wells. The search yielded no results. As a result, no impacts will occur.
- **C.** As indicated earlier, the project site is currently developed and previous construction activities have altered the site's natural drainage patterns. In addition, there are no bodies of water located within or around the project site. As a result, no impacts will occur.
- **D.** The proposed project will be restricted to the project site and will not alter the course of any river. Additionally, the proposed project will not alter the site's natural drainage characteristics and no impacts will occur.
- **E.** The nature and extent of storm water runoff ultimately discharged into the existing storm drain system will not significantly change from the levels produced by the former residential units present on-site. The project Applicant will also be required to ensure that the proposed project adheres to all pertinent Best Management Practices. In addition, no water wells will be affected by the proposed project. As a result, no impacts are anticipated.
- **F.** The proposed project will be required to conform to all pertinent State and Local regulations and development standards regarding storm water and water pollution prevention. As such, no impacts are likely to occur.
- **G.** According to the Federal Emergency Management Agency (FEMA) flood insurance map, the proposed project site is located in Zone X. This flood zone has an annual probability of flooding of less than 0.2% and represents areas outside the 500-year flood plain. Thus, properties located in Zone X are not located within a 100-year flood plain. As a result, no impacts are anticipated to occur.
- **H.** As indicated previously, the project site is not located within a designated flood hazard area as identified by FEMA. The proposed project will not impede or redirect the flows of potential floodwater. Therefore, no flood-related impacts are associated with the proposed project's implementation.
- **I.** The proposed project site is not located within a potential dam inundation area. As a result, no impacts are anticipated.
- **J.** The City of Garden Grove is located inland from the Pacific Ocean, and thus, the project site will not be exposed to the effects of a tsunami. There are no bodies of water located in the immediate area that would present a seiche hazard. As a result, no impacts related to seiche, tsunami or mudflow would result.

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- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- Federal Emergency Management Agency. Intranetix Viewer. http://map1.msc.fema.gov/idms/IntraView.
- Geotracker GAMA. *Search for wells.* http://geotracker.waterboards.ca.gov/gama/gamamap/public/default.asp?CMD=runreport&myaddress=4143 +rowland+avenue
- $\bullet \;\; \text{FEMA.} \; \textit{Flood Zones, Definition/Description.} \; \underline{\text{http://www.fema.gov/floodplain-management/flood-zones}} \\$

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LAND USE AND PLANNING IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community, or otherwise result in an incompatible land use?				×
b) Conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				×
c) Conflict with any applicable habitat conservation or natural community conservation plan?				×

Discussion of Findings

- **A.** The proposed project will be restricted to the designated project site and will not divide or affect the existing neighborhood. In addition, the proposed project will replace the existing dilapidated and vacant housing located on-site with newer more efficient development, which is in line with a majority of the residential development located on Nelson Street. Since the proposed project will neither divide the existing neighborhood, nor result in an incompatible land use, no impacts will occur.
- **B.** The proposed project will not conflict with any local General Plan or Zoning designation. No general plan amendment or zone change will be required. Lastly, the project site is located inland and is not subject to a coastal program. As a result, no impacts are anticipated
- **C.** There are no Ecological Reserves or Wildlife Areas located within the City of Garden Grove. As a result, no impacts on habitat conservation plans or community conservation plans will occur.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- City of Garden Grove. Title 9, Land Use. Chapter 9.08 Single-Family Residential Development Standards. http://www.qcode.us/codes/gardengrove/view.php?topic=9-9_08-9_08_040&frames=off
- California Department of Fish and Wildlife. *Places to Visit, Ecological Reserves and Wildlife Areas.* https://www.wildlife.ca.gov/Lands/Places-to-Visit

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MINERAL RESOURCES IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				×
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				×

Discussion of Findings

- **A.** According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources Well Finder, there are no existing or former oil wells and/or oil extraction activities located within the project site. Thus, the project will not result in any impacts on mineral resources in the region and no impacts will occur.
- **B.** The resources and materials used as part of the proposed project's construction will not include any materials that are considered rare or unique. The proposed project is also relatively small in terms of the affected land area. Thus, the proposed project will not result in any impacts on mineral resources in the region.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- California Department of Conservation. http://maps.conservation.ca.gov/doggr/index.html#close

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NOISE IMPACTS. Would the project result in:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				×
b) Exposure of people to, or generation of, excessive ground-borne noise levels?			×	
c) Substantial permanent increase in ambient noise levels in the project vicinity above noise levels existing without the project?			×	
d) Substantial temporary or periodic increases in ambient noise levels in the project vicinity above levels existing without the project?			×	
e) For a project located with an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				×
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				×

Discussion of Findings

- **A.** Noise-sensitive land uses include nursing homes, libraries, schools, hospitals, homes, and other uses that are susceptible to loud noises due to the type of activities that are conducted in these areas (e.g., sleep, rest, concentration, study, relaxation, or listening). The proposed project involves the construction of four single family residential units. The proposed project is considered to be a noise sensitive land use and the construction and occupation of the proposed project will be required to adhere to the City of Garden Grove noise control ordinance. As a result, no impacts will occur.
- **B.** The City of Garden Grove has adopted an ordinance that governs noise levels and noise exposure. In addition, the proposed project will not add a significant amount of daily trips. Usually a doubling of traffic is required to generate a perceptible increase in traffic noise. The amount of trips generated by the residential units will not result in a doubling of traffic volumes along Nelson Street. As a result, the impacts are anticipated to be less than significant.

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Discussion of Findings (continued)

- **C.** The City of Garden Grove has adopted an ordinance that governs noise levels and noise exposure. Compliance with the City's noise control requirements will minimize any potential noise impacts to levels considered to be less than significant.
- **D.** Title 8, Chapter 47 (Noise Control), Section 8.47.060: Special Noise Sources Part D prohibits construction related activities during the hours of 10:00 pm and 7:00 am. Adherence to the abovementioned provision as well as the other regulations found in the City's Noise Control ordinance will mitigate any potential adverse impact. As a result, the impacts are anticipated to be less than significant.
- **E.** The proposed project will not expose persons to noise from a public use airport. There are no public airports located within two miles of the project site. As a result, no significant aircraft noise exposure impacts will occur.
- **F.** There are no private airports located within two miles of the project site (refer to the previous response). As a result, the proposed project will not expose persons to excessive aircraft noise from operations at any private airport in the area.

- Bugliarello, et. al., *The Impact of Noise Pollution*, Chapter 127, 1975.
- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- City of Garden Grove. Title 8, Peace, Safety, and Morals. Chapter 8.47 Noise Control. https://www.ci.garden-grove.ca.us/cgi-bin/municode_public/code.cgi

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POPULATION AND HOUSING IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major 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?				×

Discussion of Findings

- **A.** The four single family homes are anticipated to add approximately 16 residents to the City based upon the number of units being constructed and the average household size for the City taken from the United States Census Bureau website (the average household size according to the United States Census Bureau is 3.72 persons per household, which was rounded to four). According to the Growth Forecast released by SCAG in conjunction with the Regional Transportation Plan for 2012-2035, the City of Garden Grove is projected to have 180,300 residents by 2035. The City has a total population of 170,400 according to 2010 Census. The projected population increase is within the population projection provided by SCAG. Growth-inducing impacts are generally associated with the provision of urban services to an undeveloped or rural area, such as utilities, improved roadways, and expanded public services. The utility connections and other infrastructure will continue to serve the project site though some upgrades may be required. As a result, no impacts are likely to occur.
- **B.** The residential units located on-site are currently vacant. The proposed project will require the removal of the two existing residential units; however, the two units are unoccupied. As a result, the proposed project will not involve the removal of any units and no displacement of existing housing units will result.
- **C.** As stated previously, the residential units located on-site are vacant. Thus, the proposed project will not displace any residents and no impacts will occur.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- Southern California Association of Governments Regional Transportation Plan, Growth Forecast Appendix. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP GrowthForecast.pdf
- United States Census Bureau. *State & County QuickFacts, Garden Grove (city), California.* http://quickfacts.census.gov/qfd/states/06/0629000.html

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PUBLIC SERVICES IMPACTS. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives in any of the following areas:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection services?			×	
b) Police protection services?			×	
c) School services?			×	
d) Other governmental services?				×

Discussion of Findings

- **A.** The proposed use will be subject to review and approval by the Garden Grove Fire Department to ensure that fire safety and fire prevention measures are incorporated into the project. Compliance with fire code requirements, installation of sprinkler systems, and approval of the site plan by the Garden Grove Fire Department are expected to reduce potential impacts to levels that are less than significant.
- **B.** Law enforcement services in the City are provided by the Garden Grove Police Department, which contains approximately 159 sworn members. The proposed site plan, lighting plan, and other improvements will be reviewed by the City's Police Department. Any Department recommendations must be incorporated into the applicable plans prior to the issuance of building permits. As a result, the impacts related to the demand on law enforcement services are considered to be less than significant.
- **C.** The Garden Grove Unified School district serves a majority of the City as well as the surrounding cities of Anaheim, Fountain Valley, Cypress, Santa Ana, Stanton, and Westminster. The district currently has approximately 48,000 students enrolled in 66 schools located throughout the district. According to the 2010 Census, a total of 26% of the City's population is school aged (five years of age to 18 years of age). As indicated in the previous section, the development's projected population is 16. Using the Citywide Census data, there is a potential for four students. The project developer would be required to pay any pertinent development fees to the local school districts. Pursuant to SB-50, payment of fees to the applicable school district is considered full mitigation for project-related impacts. The proposed project's school enrollment impacts will be off-set by the school fees that will be paid by the developer and as a result, the impacts will be less than significant.
- **D.** No new governmental services will be needed to implement the proposed project. As a result, the proposed project will not result in any impact on existing governmental services.

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- City of Garden Grove. Garden Grove Police Department. http://www.ci.garden-grove.ca.us/police
- Garden Grove Unified School District. *About GGUSD*. http://www.ggusd.us/apps/pages/index.jsp?uREC_ID=215994&type=d
- United States Census Bureau. *State & County QuickFacts, Garden Grove (city), California.* http://quickfacts.census.gov/qfd/states/06/0629000.html

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RECREATION IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) 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) Affect existing recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			×	

Discussion of Findings

- **A.** The City of Garden Grove owns and operates approximately 19 park facilities. The nearest park is the Atlantis Play Center, located approximately 1.73 miles to the southwest of the project site. The proposed project will place an incremental demand for recreational open space and services. However, the potential impacts to park services will be offset since the project Applicant will be required to pay in-lieu park fees. As a result, the impacts are anticipated to be less than significant.
- **B.** As indicated above, the project Applicant will be required to pay in-lieu park fees in order to offset any potential impacts related to park services. As a result, the impacts are anticipated to be less than significant.

- City of Garden Grove. Park Buildings, Picnic Pavilion & Park Shelters. http://www.ci.garden-grove.ca.us/commserv/parksfacilities
- City of Garden Grove. *User Fees For Various City Services.* Page 11. https://www.ci.garden-grove.ca.us/pdf/citymanager/user-fees.pdf

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TRANSPORTATION IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Cause a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				×
b) Exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways?				×
c) A change in air traffic patterns, including either an increase in traffic levels or a change in the location that results in substantial safety risks?				×
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				×
e) Result in inadequate emergency access?				×
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				×

Discussion of Findings

A. The proposed project is anticipated to generate approximately 38 trips per day, with three trips occurring during the morning (AM) peak hour, and four trips occurring during the evening (PM) peak hour (trip generation rates were derived from the 9th edition of the Institute of Transportation Engineer's Trip Generation Manual). Assuming 50% of the trips travel north along Nelson Street, the intersection of Allen Drive and Nelson Street would experience an increase in 19 average daily trips, 1.5 am peak hour trips, and two pm peak hour trips. In addition, using the same methodology, the intersection of Lampson Avenue and Nelson Street would experience an increase in 19 average daily trips, 1.5 am peak hour trips, and two pm peak hour trips. The number of trips that will be added will not impact any street's or intersection's level of service (LOS). Moreover, the proposed project will replace two vacant residential units. When taking into account the trip generation from the previous uses, potential traffic generation will decrease further. As a result, no impacts are anticipated.

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Discussion of Findings (continued)

B. In 1991, Orange County established the Congestion Management Program (CMP), to monitor traffic volumes on major arterials within the County for the purpose of coordinating land use and development growth. Compliance with the CMP requirements ensures the City's eligibility to compete for State gas tax funds for local transportation projects. The Orange County CMP states that:

"...a Traffic Impact Analysis (TIA) will be required for CMP purposes for all proposed developments generating 2,400 or more daily trips" and "...for developments which will directly access a CMP Highway System link, the threshold for requiring a TIA should be reduced to 1,600 or more trips per day."

The proposed project will not require a CMP level of analysis because the proposed project is anticipated to produce approximately 38 daily trips, which is well under the 2,400 daily trip ends required for a CMP analysis. Thus, no impacts will result from the implementation of the proposed project.

- C. The proposed project would not result in any changes in air traffic patterns. As a result, no impacts will occur.
- **D.** The overall local circulation system will remain unchanged. No changes to Nelson Street will result. As a result, no impacts will occur.
- **E.** At no time will any designated emergency evacuation route be closed to traffic due to the proposed project. Therefore, no impacts will result.
- **F.** The proposed project will not affect any bus stop, bicycle facility, or pedestrian facility. The potential transit patronage may be anticipated to increase though the potential impact is considered to be beneficial in terms of trip reduction and the attendant environmental benefits. As a result, no impacts are anticipated to occur.

- Blodgett/Baylosis Environmental Planning. Site Survey. The survey was conducted on April 23, 2015.
- Institute of Transportation Engineers (ITE). Trip Generation Manuel, 9th edition.

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UTILITIES IMPACTS. Would the project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			×	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?				×
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				×
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			×	
e) Result in a determination by the provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				×
f) Be served by a landfill with insufficient 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?				×

Discussion of Findings

A. The Garden Grove Sanitary District (GGSD) provides sewer service to the City of Garden Grove. The wastewater system consists of over 312 miles of gravity sewer pipes constructed between 1923 to the present, 9,700 manholes, and four lift stations. The gravity pipes collect wastewater from the service area and convey it to the Orange County Sanitation District's (OCSD) trunk sewers. The trunk sewers further convey the wastewater to OCSD's two treatments facilities in Fountain Valley and Huntington Beach. The proposed project is projected to generate approximately 720 gallons of wastewater per day. The treatment facilities located in Fountain Valley and Huntington Beach have sufficient capacity to accommodate the amount of wastewater generated by the proposed project. In addition, the proposed project's wastewater generation is projected to be approximately 360 gallons per day more than the two existing residential units located onsite. As a result, the impacts are anticipated to be less than significant.

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Discussion of Findings (continued)

- **B.** No significant quantities of new effluent would be generated by the proposed project. Thus, no new water or wastewater infrastructure will be required to serve the project, and no impacts are anticipated.
- **C.** No additional off-site flood control infrastructure will be required to accommodate the proposed use. The entire site is partially covered over in impervious surfaces. No significant change in the quantity of storm water runoff will result from the proposed residential project. As a result, no impacts are anticipated.
- **D.** California has experienced a prolonged drought over the past four years. In response to this drought, Governor Brown announced emergency legislation aimed at reducing water consumption. Governor Brown signed an Executive Order in April requiring Garden Grove and other cities to reduce their citywide water consumption by 25%. Governor Brown also outlined other initiatives that would include fines for those consumers that fail to conserve water. The proposed project is anticipated to consume approximately 1,000 gallons of water on a daily basis (250 gallons per day per unit). This consumption rate is approximately 500 gallons per day more than the two existing uses. The new homes will be required to install water conserving plumbing, appliances, and fixtures that will translate into a reduction in water consumption. In addition, the homes will not have any swimming pools and the landscaping will be required to comply with local water conservation requirements. There are sufficient water resources available via the City's local groundwater supply and the Metropolitan Water District of Southern California. As a result, the impacts are less than significant.
- **E.** As indicated previously, the proposed project will generate a slight increase in wastewater over the previous uses. In addition, the proposed project is anticipated to consume approximately 500 more gallons of water per day. Given the nature and scale of the proposed project, the incremental increase in demand can be adequately handled by the Garden Grove Sanitary District, Metropolitan Water District of Southern California, and the City's water division. No additional treatment capacity will be required as part of the proposed project's operation. As a result, no impacts are anticipated.
- **F.** The proposed four-unit residential development is projected to generate eight pounds of solid waste daily. The proposed use, like all other development in Garden Grove, will be required to adhere to City and County ordinances related to waste reduction and recycling. As a result, no impacts are anticipated.
- **G.** The proposed project, like all other development in Garden Grove, will be required to adhere to City and County ordinances related to waste reduction and recycling. The proposed project will be required to comply with all pertinent City regulations concerning trash removal and recycling. As a result, no impacts are anticipated.

Sources

• City of Garden Grove. *Garden Grove General Plan, Chapter 6, Infrastructure Element. Pages 6-2 through 6-3.* Date accessed April 29, 2015.

Please Note: The utilities calculation worksheets are included in the Appendices.

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Mandatory Findings of Significance. The approval and subsequent implementation of the proposed project:

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Will not have the potential to degrade the quality of the environment, with the implementation of the recommended standard conditions included herein.				×
b) Will not have the potential to achieve short-term goals to the disadvantage of long-term environmental goals, with the implementation of the recommended standard conditions referenced herein.				×
c) Will not have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the immediate vicinity, with the implementation of the recommended standard conditions contained herein.				×
d) Will not have environmental effects that will adversely affect humans, either directly or indirectly, with the implementation of the recommended standard conditions contained herein.				×

Discussion of Findings

- **A.** The proposed project *will not* have the potential to degrade the quality of the environment, with the implementation of the recommended standard conditions included herein. No mitigation is required.
- **B.** The proposed project *will not* have the potential to achieve short-term goals to the disadvantage of long-term environmental goals, with the implementation of the recommended standard conditions referenced herein. No mitigation is required.
- **C.** The proposed project *will not* have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the immediate vicinity, with the implementation of the recommended standard conditions contained herein. No mitigation is required.
- **D.** The proposed project *will not* have environmental effects that will adversely affect humans, either directly or indirectly, with the implementation of the recommended standard conditions contained herein. No mitigation is required.

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APPENDICES

Appendix A - Air Quality Worksheets

Appendix B - Utilities Calculations

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



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Garden Grove NOE South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses			Lot Acreage	Floor Surface Area	Population	
Single Family Housing	4.00	Dwelling Unit	0.90	39,340.00	11	

1.2 Other Project Characteristics

 Urbanization
 Urban
 Wind Speed (m/s)
 2.2
 Precipitation Freq (Days)
 31

 Climate Zone
 8
 Operational Year
 2016

Utility Company Southern California Edison

CO2 Intensity 630.89 CH4 Intensity 0.029 N2O Intensity 0.006 (Ib/MWhr) (Ib/MWhr) 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square feet discussed in NOE.

Construction Phase - Construction times discussed in NOE.

Architectural Coating - Per SCAQMD auidelines.

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Table Name	Column Name	Default Value	New Value		
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00		
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00		
tblConstructionPhase	NumDays	5.00	21.00		
tblConstructionPhase	NumDays	100.00	109.00		
tblConstructionPhase	NumDays	10.00	22.00		
tblConstructionPhase	NumDays	2.00	10.00		
tblConstructionPhase	NumDays	5.00	21.00		
tblConstructionPhase	NumDays	1.00	13.00		
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016		
tblConstructionPhase	PhaseEndDate	7/17/2015	7/18/2015		
tblGrading	AcresOfGrading	6.50	0.50		
tblLandUse	LandUseSquareFeet	7,200.00	39,340.00		
tblLandUse	LotAcreage	1.30	0.90		
tblProjectCharacteristics	OperationalYear	2014	2016		

2.0 Emissions Summary

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2.1 Overall Construction (Maximum Daily Emission) <u>Unmitigated Construction</u>

	ROG	NOx	со	SO2	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/c	lay		
2015	1.4584	14.3835	9.5318	0.0135	0.8645	0.9996	1.7403	0.4434	0.9196	1.2802	0.0000	1,323.828 4	1,323.828 4	0.3564	0.0000	1,331.313 6
2016	15.0210	10.7222	8.4636	0.0137	0.2012	0.6623	0.8635	0.0534	0.6129	0.6662	0.0000	1,297.685 7	1,297.685 7	0.3079	0.0000	1,304.15 7
Total	16.4794	25.1057	17.9953	0.0271	1.0657	1.6619	2.6038	0.4968	1.5325	1.9464	0.0000	2,621.514 2	2,621.514	0.6643	0.0000	2,635.46

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		
2015	1.4584	14.3835	9.5318	0.0135	0.8645	0.9996	1.7403	0.4434	0.9196	1.2802	0.0000	1,323.828 4	1,323.828 4	0.3564	0.0000	1,331.313
2016	15.0210	10.7222	8.4636	0.0137	0.2012	0.6623	0.8635	0.0534	0.6129	0.6662	0.0000	1,297.685	1,297.685 7	0.3079	0.0000	1,304.150
Total	16.4794	25.1057	17.9953	0.0271	1.0657	1.6619	2.6038	0.4968	1.5325	1.9464	0.0000	2,621.514 2	2,621.514	0.6643	0.0000	2,635.464
	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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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/d	lay		
Area	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1123	2.5400e- 003	113.209
Energy	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.465
Mobile	0.1547	0.4482	1.8391	4.3600e- 003	0.2921	6.5300e- 003	0.2987	0.0781	6.0000e- 003	0.0841		382.9585	382.9585	0.0151		383.275
Total	2.0801	0.5079	4.1966	7.7700e- 003	0.2921	0.3163	0.6084	0.0781	0.3157	0.3937	37.4677	492.7917	530.2593	0.1282	3.2200e- 003	533.950

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/c	iay		
Area	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1123	2.5400e- 003	113.209
Energy	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.465
Mobile	0.1547	0.4482	1.8391	4.3600e- 003	0.2921	6.5300e- 003	0.2987	0.0781	6.0000e- 003	0.0841		382.9585	382.9585	0.0151		383.275
Total	2.0801	0.5079	4.1966	7.7700e- 003	0.2921	0.3163	0.6084	0.0781	0.3157	0.3937	37.4677	492.7917	530.2593	0.1282	3.2200e- 003	533.950

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2015	6/30/2015	5	22	
2	Site Preparation	Site Preparation	7/1/2015	7/18/2015	5	13	
3	Grading	Grading	7/19/2015	7/31/2015	5	10	
4	Building Construction	Building Construction	8/1/2015	12/31/2015	5	109	
5	Paving	Paving	1/1/2016	1/31/2016	5	21	
6	Architectural Coating	Architectural Coating	2/1/2016	2/29/2016	5	21	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 79,664; Residential Outdoor: 26,555; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

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

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	0.00	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	1.00	0.00	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	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2015
Unmitigated Construction On-Site

	ROG	NOx	со	S02	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day							lb/c	day		
Off-Road	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359		1,200.638 6	1,200.638 6	0.2451		1,205.786 1
Total	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359		1,200.638	1,200.638	0.2451		1,205.786

Unmitigated Construction Off-Site

	ROG	NOx	co	S02	Fugitive 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/e	iay		
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	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.3292
Total	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.3292

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3.2 Demolition - 2015 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	N20	CO2e
Category					lb/	day							lb/c	iay		
Off-Road	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359	0.0000	1,200.638 6	1,200.638 6	0.2451		1,205.786 1
Total	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359	0.0000	1,200.638	1,200.638	0.2451		1,205.786

	ROG	NOx	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
Category					lb/	day							lb/c	iay		
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	1	0.0000	0.0000	0.0000		0.0000
Worker	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306	ļ	123.1899	123.1899	6.6300e- 003		123.329
Total	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.329

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3.3 Site Preparation - 2015 Unmitigated Construction On-Site

	ROG	NOx	со	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
Category					lb/	day							lb/c	lay		
Fugitive Dust					0.0408	0.0000	0.0408	4.4000e- 003	0.0000	4.4000e- 003			0.0000			0.0000
Off-Road	1.4222	14.2999	7.4063	9.3600e- 003		0.8797	0.8797		0.8093	0.8093	ļ	984.5542	984.5542	0.2939		990.726
Total	1.4222	14.2999	7.4063	9.3600e- 003	0.0408	0.8797	0.9205	4.4000e- 003	0.8093	0.8137		984.5542	984.5542	0.2939		990.7267

Unmitigated Construction Off-Site

	ROG	NOx	со	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
Category					lb/	day							lb/c	lay		
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	1	0.0000	0.0000	0.0000		0.0000
Worker	0.0231	0.0290	0.3590	7.1000e- 004	0.0559	4.9000e- 004	0.0564	0.0148	4.5000e- 004	0.0153	1	61.5949	61.5949	3.3200e- 003		61.6646
Total	0.0231	0.0290	0.3590	7.1000e- 004	0.0559	4.9000e- 004	0.0564	0.0148	4.5000e- 004	0.0153		61.5949	61.5949	3.3200e- 003		61.6646

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3.3 Site Preparation - 2015 Mitigated Construction On-Site

	ROG	NOx	со	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
Category					lb/	day							lb/c	iay		
Fugitive Dust					0.0408	0.0000	0.0408	4.4000e- 003	0.0000	4.4000e- 003			0.0000			0.0000
Off-Road	1.4222	14.2999	7.4063	9.3600e- 003		0.8797	0.8797		0.8093	0.8093	0.0000	984.5542	984.5542	0.2939		990.7267
Total	1.4222	14.2999	7.4063	9.3600e- 003	0.0408	0.8797	0.9205	4.4000e- 003	0.8093	0.8137	0.0000	984.5542	984.5542	0.2939		990.7267

	ROG	NOx	со	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
Category					lb/	day							lb/c	lay		
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		0.000
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	2 2 2	0.000
Worker	0.0231	0.0290	0.3590	7.1000e- 004	0.0559	4.9000e- 004	0.0564	0.0148	4.5000e- 004	0.0153	1	61.5949	61.5949	3.3200e- 003	-	61.664
Total	0.0231	0.0290	0.3590	7.1000e- 004	0.0559	4.9000e- 004	0.0564	0.0148	4.5000e- 004	0.0153		61.5949	61.5949	3.3200e- 003		61.66

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3.4 Grading - 2015 Unmitigated Construction On-Site

	ROG	NOx	CO	S02	Fugitive 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/i	day							lb/d	iay		
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359		1,200.638 6	1,200.638 6	0.2451		1,205.786 1
Total	1.4120	11.9409	8.8138	0.0120	0.7528	0.8748	1.6276	0.4138	0.8359	1.2496		1,200.638 6	1,200.638 6	0.2451		1,205.786

Unmitigated Construction Off-Site

	ROG	NOx	СО	S02	Fugitive 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/c	iay		
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	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.3292
Total	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.3292

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3.4 Grading - 2015 Mitigated Construction On-Site

	ROG	NOx	СО	S02	Fugitive 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			7.7				lb/c	day		
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000		!	0.0000
Off-Road	1.4120	11.9409	8.8138	0.0120		0.8748	0.8748		0.8359	0.8359	0.0000	1,200.638 6	1,200.638 6	0.2451		1,205.786 1
Total	1.4120	11.9409	8.8138	0.0120	0.7528	0.8748	1.6276	0.4138	0.8359	1.2496	0.0000	1,200.638	1,200.638	0.2451		1,205.786 1

a)	ROG	NOx	СО	SO2	Fugitive 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/c	day	<u> </u>	
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	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306	†	123.1899	123.1899	6.6300e- 003		123.3292
Total	0.0463	0.0579	0.7179	1.4200e- 003	0.1118	9.8000e- 004	0.1128	0.0296	9.0000e- 004	0.0306		123.1899	123.1899	6.6300e- 003		123.3292

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3.5 Building Construction - 2015 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	co	SO2	Fugitive 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/i	iay							lb/c	iay		
Off-Road	1.4538	14.3777	8.2983	0.0113		0.9995	0.9995		0.9195	0.9195		1,191.702 1	1,191.702 1	0.3558		1,199.173 3
Total	1.4538	14.3777	8.2983	0.0113		0.9995	0.9995		0.9195	0.9195		1,191.702	1,191.702	0.3558		1,199.173

Unmitigated Construction Off-Site

	ROG	NOx	со	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
Category					lb/	day							lb/e	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	4.6300e- 003	5.7900e- 003	0.0718	1.4000e- 004	0.0112	1.0000e- 004	0.0113	2.9600e- 003	9.0000e- 005	3.0500e- 003		12.3190	12.3190	6.6000e- 004		12.3329
Total	4.6300e- 003	5.7900e- 003	0.0718	1.4000e- 004	0.0112	1.0000e- 004	0.0113	2.9600e- 003	9.0000e- 005	3.0500e- 003		12.3190	12.3190	6.6000e- 004		12.3329

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3.5 Building Construction - 2015 Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive 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/d	iay		
Off-Road	1.4538	14.3777	8.2983	0.0113		0.9995	0.9995		0.9195	0.9195	0.0000	1,191.702 1	1,191.702 1	0.3558		1,199.173 3
Total	1.4538	14.3777	8.2983	0.0113		0.9995	0.9995		0.9195	0.9195	0.0000	1,191.702	1,191.702	0.3558		1,199.173

	ROG	NOx	co	SO2	Fugitive 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/c	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		0.000
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		0.000
Worker	4.6300e- 003	5.7900e- 003	0.0718	1.4000e- 004	0.0112	1.0000e- 004	0.0113	2.9600e- 003	9.0000e- 005	3.0500e- 003	†	12.3190	12.3190	6.6000e- 004		12.332
Total	4.6300e- 003	5.7900e- 003	0.0718	1.4000e- 004	0.0112	1.0000e- 004	0.0113	2.9600e- 003	9.0000e- 005	3.0500e- 003		12.3190	12.3190	6.6000e- 004		12.332

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3.6 Paving - 2016

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	N20	CO2e
Category					lb/i	day							lb/d	iay		
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.583 2	1,083.583 2	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000	İ	0.0000	0.0000			0.0000			0.0000
Total	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.583 2	1,083.583 2	0.2969		1,089.817 5

Unmitigated Construction Off-Site

	ROG	NOx	со	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
Category					lb/	day							lb/d	iay		
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	0.0752	0.0940	1.1700	2.5500e- 003	0.2012	1.6800e- 003	0.2029	0.0534	1.5500e- 003	0.0549		214.1025	214.1025	0.0110		214.3332
Total	0.0752	0.0940	1.1700	2.5500e- 003	0.2012	1.6800e- 003	0.2029	0.0534	1.5500e- 003	0.0549		214.1025	214.1025	0.0110		214.3332

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3.6 Paving - 2016

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	N20	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.583 2	1,083.583	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.583 2	1,083.583 2	0.2969		1,089.817 5

	ROG	NOx	СО	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
Category					lb/	day							lb/c	lay		
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	İ	0.0000	0.0000	0.0000		0.0000
Worker	0.0752	0.0940	1.1700	2.5500e- 003	0.2012	1.6800e- 003	0.2029	0.0534	1.5500e- 003	0.0549	l	214.1025	214.1025	0.0110		214.3332
Total	0.0752	0.0940	1.1700	2.5500e- 003	0.2012	1.6800e- 003	0.2029	0.0534	1.5500e- 003	0.0549		214.1025	214.1025	0.0110		214.3332

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3.7 Architectural Coating - 2016 <u>Unmitigated Construction On-Site</u>

,	ROG	NOx	со	SO2	Fugitive 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/c	iay		
Archit. Coating	14.6526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966	l	281.4481	281.4481	0.0332		282.1449
Total	15.0210	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449

Unmitigated Construction Off-Site

	ROG	NOx	со	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
Category	ė.				lb/	day							lb/c	lay		
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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3.7 Architectural Coating - 2016 Mitigated Construction On-Site

	ROG	NOx	со	S02	Fugitive 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/c	lay		
Archit. Coating	14.6526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	15.0210	2.3722	1.8839	2.9700e- 003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449

Mitigated Construction Off-Site

	ROG	NOx	со	S02	Fugitive 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/c	iay		
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		0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	†	0.0000	0.0000	0.0000		0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.000

4.0 Operational Detail - Mobile

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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	N20	CO2e
Category					lb/	day							lb/c	iay		
Mitigated	0.1547	0.4482	1.8391	4.3600e- 003		6.5300e- 003	0.2987	0.0781	6.0000e- 003	0.0841		382.9585	382.9585	0.0151		383.2756
Unmitigated	0.1547	0.4482	1.8391	4.3600e- 003	0.2921	6.5300e- 003	0.2987	0.0781	6.0000e- 003	0.0841		382.9585	382.9585	0.0151		383.2756

4.2 Trip Summary Information

	Ave	erage Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	38.28	40.32	35.08	130,242	130,242
Total	38.28	40.32	35.08	130.242	130.242

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513363	0.060352	0.180146	0.139338	0.042155	0.006672	0.015739	0.030749	0.001928	0.002503	0.004351	0.000593	0.002111

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	со	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
Category					lb/e	day				3			lb/c	iay		
NaturalGas Mitigated	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656
NaturalGas Unmitigated	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	со	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
Land Use	kBTU/yr					lb/	day							lb/o	day		
Single Family Housing	316.532	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656
Total		3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656

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5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa s Use	ROG	NOx	со	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
Land Use	kBTU/yr					lb/	day							lb/c	day		
Single Family Housing	0.316532	3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656
Total		3.4100e- 003	0.0292	0.0124	1.9000e- 004		2.3600e- 003	2.3600e- 003		2.3600e- 003	2.3600e- 003		37.2390	37.2390	7.1000e- 004	6.8000e- 004	37.4656

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive 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/d	day		
Mitigated	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1123	2.5400e- 003	113.2094
Unmitigated	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1123	2.5400e- 003	113.2094

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6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	со	SO2	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/d	day		
Consumer Products	0.7789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0266	2.0106	3.2000e- 003		0.3056	0.3056		0.3055	0.3055	37.4677	72.0000	109.4677	0.1117	2.5400e- 003	112.6025
Landscaping	0.0105	3.9100e- 003	0.3346	2.0000e- 005		1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		0.5942	0.5942	6.1000e- 004		0.6069
Architectural Coating	0.0843					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1124	2.5400e- 003	113.2094

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



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6.2 Area by SubCategory Mitigated

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/c	lay		
Consumer Products	0.7789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0266	2.0106	3,2000e- 003		0.3056	0.3056		0.3055	0.3055	37.4677	72.0000	109.4677	0.1117	2.5400e- 003	112.6025
Landscaping	0.0105	3.9100e- 003	0.3346	2.0000e- 005	187 198	1.8100e- 003	1.8100e- 003		1.8100e- 003	1.8100e- 003		0.5942	0.5942	6.1000e- 004		0.6069
Architectural Coating	0.0843					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9219	0.0305	2.3452	3.2200e- 003		0.3074	0.3074		0.3073	0.3073	37.4677	72.5942	110.0619	0.1124	2.5400e- 003	113.2094

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

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



INTRODUCTION TO UTILITY SCREENING TABLES

The following worksheets are used to evaluated the potential impacts of a project.

Table 1 Definition of Project

This Table is used to establish the proposed development parameters that are used the calculation of utilities use. The independent variable to be entered is identified by shading. For residentia development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

Tables 2 Summary of Project Impacts

consumption/generation rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this area of the worksheet.

Tables 3 through 7 Calculation of Project Impacts

Table 3 through 7 indicate the results of the analysis.

Table 3 Electrical Consumption - This table calculates the projected electrical consumption for new development. Default generation rates provided in the shaded areas may be changed. Table 4 Natural Gas Consumption - This table calculates the projected natural gas useage for new development. Default generation rates provided in the shaded areas may be changed. Table 5 Water Consumption - This table calculates the projected water consumption rates for new development. <u>Default generation rates provided in the shaded areas may be changed.</u>
Table 6 Sewage Generation - This table calculates the projected effluent generation rates for new development. <u>Default generation rates provided in the shaded areas may be changed.</u>

Table 7 Solid Waste Generation - This table calculates the projected waste generation for new development. Default generation rates provided in the shaded areas may be changed.

Table 1:

ion of Project Parameters - Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Variable	Factor
Residential Uses	Variable	Total Units
Single-Family Residential	No. of Units	4
Medium Density Residential	No. of Units	0
Multiple-Family Residential	No. of Units	0
Mobile Home Park	No. of Units	0
Office Uses	Variable	Total Floor Area
Office	Square Feet	0
Medical Office Building	Square Feet	0
Office Park	Square Feet	0
Bank/Financial Services	Square Feet	0
Commercial Uses	Variable	Total Floor Area
Specialty Retail Commercial	Square Feet	0
Convenience Store	Square Feet	0
Movie Theater	Square Feet	0
Shopping Center	Square Feet	0
Sit-Down Restaurant	Square Feet	0
Fast-Food Restaurant	Square Feet	0
Manufacturing Uses	Variable	Total Floor Area
Industrial Park	Square Feet	0
Manufacturing	Square Feet	0
General Light Industry	Square Feet	0
Warehouse	Square Feet	0
Public/Institutional	Variable	Total Floor Area
Public/Institutional	Square Feet	0
Open Space	Square Feet	0

Table 2.: Projected Utility Consumption/Generation
Summary of Project Impacts - Results of analysis identified below. No modifications should be

Utilities Consumption and Generation	Factor	Rates
Electrical Consumption	kWh/day	83
Natural Gas Consumption	cubic feet/day	73
Water Consumption	gallons/day	1,000
Sewage Generation	gallons/day	720
Solid Waste Generation	pounds/day	16

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



Project Component	Units of Measure	Consumption Factors	Projected Consumption
Residential Uses	No. of Units	kWh/Unit/Year	kWh/Unit/Day
Single-Family Residential	4	7,554.00	82.8
Medium Density Residential	0	4,644.00	0.0
Multiple-Family Residential	0	4,644.00	0.0
Mobile Home Park	0	4,644.00	0.0
Office Uses	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Office	0	20.80	0.0
Medical Office Building	0	14.20	0.0
Office Park	0	20.80	0.0
Bank/Financial Services	0	20.80	0.0
Commercial Uses	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Specialty Retail Commercial	0	16.00	0.0
Convenience Store	0	16.00	0.0
Movie Theater	0	16.00	0.0
Shopping Center	0	35.90	0.0
Sit-Down Restaurant	0	49.10	0.0
Fast-Food Restaurant	0	49.10	0.0
Manufacturing Uses	Square Feet	kWh/Sq. Ft./Year	kWh/Sg. Ft./Day
ndustrial Park	0	4.80	0.0
Manufacturing	0	4.80	0.0
General Light Industry	0	4.80	0.0
Warehouse	0	4.80	0.0
Public/Institutional	Square Feet	kWh/Sq. Ft./Year	kWh/Sg. Ft./Day
Public/Institutional	0	4,80	0.0
Open Space	0	0.00	0.0
Source: Common Forecasting Metho	odology VII Demand Fo	rms, 1989	82.8
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project	odology VII Demand For	Consumption	Projected
Source: Common Forecasting Metho Table 4: Natural Gas Consun Project Component	odology VII Demand For nption Units of Measure	Consumption Factors	Projected Consumption
Source: Common Forecasting Methoration Table 4: Natural Gas Consun Project Component Residential Uses	odology VII Demand For nption Units of Measure No. of Units	Consumption Factors Cu. Ft./Mo./Unit	Projected Consumption Cu. Ft,/Day
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential	odology VII Demand For Inption Units of Measure No. of Units	Consumption Factors Cu. Ft./Mo./Unit 6,665.00	Projected Consumption Cu. Ft,/Day 73.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential	nption Units of Measure No. of Units 4	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50	Projected Consumption Cu. Ft,/Day 73.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential	nption Units of Measure No. of Units 4 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50	Projected Consumption Cu. Ft,/Day 73.0 0.0
Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park	nption Units of Measure No. of Units 4 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses	nption Units of Measure No. of Units 4 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft.	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses	nption Units of Measure No. of Units 4 0 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft.	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building	nption Units of Measure No. of Units 4 0 0 Square Feet 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park	nption Units of Measure No. of Units 4 0 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services	Department of the second of th	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Diffice Wedical Office Building Diffice Park Bank/Financial Services Commercial Uses	Department of the second of th	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft.	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 Cu. Ft,/Day
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial	Department of the second of th	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store	Department of the state of the	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater	Department of the second of th	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center	odology VII Demand Formption Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant	Department of the second of th	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Common Forecasting Methor Table 4: Natural Gas Consum Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant	Deposition Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 2.90 2.90 2.9	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses	odology VII Demand Formation Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 Cu. Ft./Mo./Sq. Ft.	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park	Deposition Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 Cu. Ft./Mo./Sq. Ft. 4.70	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing	Dedology VII Demand Formation Units of Measure No. of Units 4 0 0 Square Feet 0 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 2.90 2.90 2.9	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Wedical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park	Units of Measure No. of Units of Measure No. of Units 4	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 Cu. Ft./Mo./Sq. Ft. 4.70	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing General Light Industry Warehouse	odology VII Demand Formption Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 2.90 4.470 4.70 4.70	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing General Light Industry Warehouse Public/Institutional Use	odology VII Demand Formption Units of Measure No. of Units 4 0 0 Square Feet	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 2.90 Cu. Ft./Mo./Sq. Ft. 4.70 4.70 4.70 Cu. Ft./Mo./Sq. Ft.	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 Cu. Ft,/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Common Forecasting Methor Table 4: Natural Gas Consun Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Uses Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing General Light Industry Warehouse	odology VII Demand Formption Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Cu. Ft./Mo./Unit 6,665.00 4,011.50 4,011.50 4,011.50 Cu. Ft./Mo./Sq. Ft. 2.00 2.00 2.00 2.00 Cu. Ft./Mo./Sq. Ft. 2.90 2.90 2.90 2.90 2.90 2.90 4.470 4.70 4.70	Projected Consumption Cu. Ft,/Day 73.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



Project	Units of	Consumption	Projected
Component	Measure	Factors	Consumption
Residential Uses	No. of Units	Gals./Day/Unit	Gals./Day
Single-Family Residential	4	250.00	1,000.0
Medium Density Residential	0	250.00	0.0
Multiple-Family Residential	0	250.00	0.0
Mobile Home Park	0	250.00	0.0
Office Uses	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Office	0	0.14	0.0
Medical Office Building	0	0.14	0.0
Office Park	0	0.14	0.0
Bank/Financial Services	0	0.14	0.0
Commercial Uses	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Specialty Retail Commercial	0	0.10	0.0
Convenience Store	0	0.10	0.0
Movie Theater	0	0.10	0.0
Shopping Center	0	0.10	0.0
Sit-Down Restaurant	0	0.11	0.0
Fast-Food Restaurant	0	0.11	0.0
Manufacturing Uses	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Industrial Park	0	0.14	0.0
Manufacturing	0	0.14	0.0
General Light Industry	0	0.14	0.0
Warehouse	0	0.14	0.0
Public/Institutional Use	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Public/Institutional	0	0.10	0.0
Open Space	0	0.10	0.0
Source: Derived from Orange Count Table 6: Sewage Generation	y Sanitation District rate		1,000.0
Total Daily Water Consumption (gall Source: Derived from Orange Count Table 6: Sewage Generation Project Component		es. Consumption Factors	1,000.0 Projected Consumption
Source: Derived from Orange Count Table 6: Sewage Generation Project	y Sanitation District rate	Consumption	Projected
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses	Units of Measure	Consumption Factors	Projected Consumption
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential	y Sanitation District rate Units of Measure No. of Units	Consumption Factors Gals./Day/Unit	Projected Consumption Gals./Day
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential	Units of Measure No. of Units 4	Consumption Factors Gals./Day/Unit 180.00	Projected Consumption Gals./Day 720.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential	Units of Measure No. of Units 4	Consumption Factors Gals./Day/Unit 180.00	Projected Consumption Gals./Day 720.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential	Units of Measure No. of Units 4 0 0	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00	Projected Consumption Gals./Day 720.0 0.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses	Units of Measure No. of Units 4 0 0 0	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft.	Projected Consumption Gals./Day 720.0 0.0 0.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses	Units of Measure No. of Units 4 0 0 Square Feet	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building	Units of Measure No. of Units 4 0 0 Square Feet	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 0	Consumption	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses	y Sanitation District rate Units of Measure No. of Units 4 0 0 0 Square Feet 0 0 0	Consumption	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet	Consumption Factors Gals:/Day/Unit 180.00 180.00 180.00 180.00 Gals:/Day/Sq. Ft. 0.11 0.11 0.11 Gals:/Day/Sq. Ft.	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 Gals./Day 0.0 Gals./Day
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center	y Sanitation District rate Units of Measure No. of Units 4 0 0 0 Square Feet 0 0 Square Feet 0 0 0 O O O O O O O O O O	Consumption	Projected Consumption Gals/Day 720.0 0.0 0.0 0.0 Gals/Day 0.0 0.0 Gals/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services	y Sanitation District rate Units of Measure No. of Units 4 0 0 0 Square Feet 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption	Projected Consumption Gals/Day 720.0 0.0 0.0 0.0 Gals/Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.08 0.08 0.08 0.08	Projected Consumption Gals./Day 720.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 Square Feet 0 Square Feet	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.08 0.08 0.08 0.08 Gals./Day/Sq. Ft.	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet 0 0 Square Feet 0 Square Feet 0 Square Feet 0 0 Square Feet 0 0 Square Feet	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.08 0.08 0.08 0.08 Gals./Day/Sq. Ft. 0.11 0.11 Gals./Day/Sq. Ft. 0.11	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 Gals./Day 0.0 0.0 Gals./Day 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet 0 0 Square Feet 0 0 Square Feet 0 0 0 Square Feet 0 0 0 0 0 0 0 0 0 0 0 0 0	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.08 0.08 0.08 0.08 Gals./Day/Sq. Ft. 0.11 0.11 O.11 O.11 O.11 O.11 O.11 O.11 O.11	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
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Source: Derived from Orange Count Table 6: Sewage Generation Project Component Residential Uses Single-Family Residential Medium Density Residential Multiple-Family Residential Multiple-Family Residential Mobile Home Park Office Uses Office Medical Office Building Office Park Bank/Financial Services Commercial Uses Specialty Retail Commercial Convenience Store Movie Theater Shopping Center Sit-Down Restaurant Fast-Food Restaurant Manufacturing Uses Industrial Park Manufacturing General Light Industry Warehouse Public/Institutional Use	y Sanitation District rate Units of Measure No. of Units 4 0 0 Square Feet 0 Square Feet	Consumption Factors Gals./Day/Unit 180.00 180.00 180.00 180.00 Gals./Day/Sq. Ft. 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.08 0.08 0.08 0.08 Gals./Day/Sq. Ft. 0.11 0.11 0.11 Gals./Day/Sq. Ft. 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11	Projected Consumption Gals./Day 720.0 0.0 0.0 0.0 Gals./Day 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
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SINGLE FAMILY (FOUR UNIT) DEVELOPMENT 12381 NELSON STREET GARDEN GROVE, CALIFORNIA



Project Component	Units of Measure	Generation Factors	Projected Generation
Residential Uses	No. of Units	Lbs./Day/Unit	Lbs./Day
Single-Family Residential	4	4.00	16.0
Medium Density Residential	0	4.00	0.0
Multiple-Family Residential	0	4.00	0.0
Mobile Home Park	0	4.00	0.0
Office Uses	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Office	0	6.00	0.0
Medical Office Building	0	6.00	0.0
Office Park	0	6.00	0.0
Bank/Financial Services	0	6.00	0.0
Commercial Uses	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Specialty Retail Commercial	0	42.00	0.0
Convenience Store	0	42.00	0.0
Movie Theater	0	6.00	0.0
Shopping Center	0	6.00	0.0
Sit-Down Restaurant	0	6.00	0.0
Fast-Food Restaurant	0	42.00	0.0
Manufacturing Uses	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
ndustrial Park	0	6.00	0.0
Manufacturing	0	6.00	0.0
General Light Industry	0	6.00	0.0
Warehouse	0	6.00	0.0
Public/Institutional Use	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Public/Institutional	0	4.00	0.0
Open Space	0	3.00	0.0
Fotal Daily Solid Waste Generation Source: City of Los Angeles Average	Solid Waste Generati	on Rates	16