APPENDIX B
Air Quality Analysis

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Chris Jacobs, Senior Planner
City of La Mesa
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Subject: **Air Quality Analysis**
Collier Park Renovations Project
City of La Mesa, San Diego County, California

Dear Mr. Jacobs:

This letter report provides an air quality impact analysis for the Collier Park Renovations Project (project) in compliance with the California Environmental Quality Act (CEQA) requirements of the City of La Mesa and the San Diego Air Pollution Control District (SDAPCD).

PROJECT DESCRIPTION

Collier Park is a 7.7-acre park located at 4401 Palm Avenue in the City of La Mesa, situated between Palm Avenue to the west and 4th Street/Upland Street to the east. On April 24, 2007, the City Council authorized the preparation of a master plan for Collier Park. The approach for the master plan was structured around an interactive "Take Part" public process to address any neighborhood concerns, assess the optimum use of the site, and identify potential funding sources for improvements. Community stakeholders were involved in the master planning process, which included written surveys, individual interviews, and public workshops. The draft Collier Park Master Plan was never finalized or adopted. However, aspects of the proposed project are largely based upon the concepts proposed within the draft Master Plan.

The project is organized into four areas: 1) Panhandle; 2) Spring House; 3) History Hill; and 4) Collier Club House. The improvements associated with the four project areas are discussed below. The improvements proposed are conceptual in nature, and detailed plans have not been finalized, except for the Panhandle area of the park. The air quality analysis evaluates a worst-case scenario with respect to the impacts associated with the construction and operation of the project.

Panhandle

The first phase of improvements to Collier Park would occur in the Panhandle area, which is situated in the southern and western portions of the park. The Panhandle area is primarily developed for recreational use with existing facilities such as a parking lot, tennis court, playground, and restrooms. Proposed improvements in the Panhandle area include relocation of a water fountain; replacement of the existing playground, restrooms, tennis court, bus stop, and parking area; and installation of walking paths, landscaping, drainage, and security features. The existing 25 space parking lot would be removed

and replaced with 21 on-site parking spaces throughout the park. Three pedestrian entrances would be constructed along Palm Avenue. At least one entrance from Upland Street would be added to encourage pedestrian use by residents in the neighborhood to the east. Another walking path would be constructed from the park's main entrance at the corner of Palm Avenue and Pasadena Avenue, extending southeast to the new playgrounds. This entrance walkway would also extend to housing adjacent to the south side of the park. To the extent possible, all walking paths within the park would be handicap accessible and appropriate for all abilities, and would create internal park connections as well as connections with surrounding streets.

Spring House

Resolution No. 15191 was adopted by the City Council on October 22, 1985, designating Collier Park and La Mesa Spring House as a local historical landmark. On February 27, 2007, the City Council requested that the Spring House be referred to the City's Historic Preservation Commission (HPC). The HPC discussed the potential options and concepts for recognizing the historic value of the Spring House that could be incorporated into future designs for Collier Park improvements. The HPC recommended that, if funds were not available for complete restoration, the stone walls around the base of the building, the cistern, and related accoutrements be maintained and preserved to serve as an interpretive center.

The existing Spring House is located within the Panhandle area of Collier Park. The City is exploring various options with regard to the Spring House, including restoration, reconstruction, and replacement. Under the proposed project, the existing Spring House would be deconstructed down to the stone rubble wall base. The wall base would then be repaired to create an outdoor interpretive center chronicling the history of the park. The creation of the interpretive center would include stabilization of the remaining concrete and stone wall structure, the addition of a new concrete floor finish, water-proofing of the cistern, and the addition of outdoor interpretive exhibits.

History Hill

The History Hill area is located in the southeastern portion of Collier Park, east of the Panhandle area. This area currently consists of mostly undeveloped parkland. The History Hill area would be converted into a grassy amphitheater built into the hillside. The natural elevation would be utilized for "stadium-style" seating composed of pavers and decomposed granite, fronted by a flat area for recreation or performances. The amphitheater would offer casual seating capacity for 50 park visitors and would be suitable for intimate performances and gatherings. A small portion of the amphitheater area would be designated as rental space for weddings and other similar events. The amphitheater would be located adjacent to the Spring House, creating an opportunity for the two features to be used together as a single venue.

The entire History Hill area would be terraced and planted with new landscaping to provide natural spaces for informal gatherings along the unpaved paths meandering through the amphitheater area. Project grading would lower the existing topography of the History Hill area. Three walkways would be constructed within the amphitheater area. These paths would be composed of decomposed granite and terraced to accommodate the topography. The decomposed granite walkways would be interspersed with grass and sandstone steps. The southern portion of the History Hill area would include a walkway that provides access to the southern portion of the Panhandle area.

Collier Club House

The Collier Club House area is located in the northern portion of Collier Park. This area currently consists of mostly undeveloped parkland. Proposed improvements in the Collier Club House area include construction of a club house building, outdoor seating areas, a plaza area, and parking, as well as the installation of walking paths, landscaping, and security features. The Collier Club House area would be developed to contain a new 2,500 square-foot club house building for public use. West of the new club house building, two separate outdoor seating areas and a ceremony stage, with a maximum capacity of 300 persons, would be constructed. East of the new club house building, a plaza area would be constructed that would contain benches, an unpaved pathway, and green space. A water feature, fire pit and outdoor cooking and dining area would be located north of the new club house building. Passive exercise areas, such as an oversized chess game and bocce ball courts or similar types of activities, would be located south of the new club house building. An asphalt parking lot with 34 spaces would be constructed within the northeastern portion of the Collier Club House area.

Two pedestrian crossings would be installed across Pasadena Avenue. One pedestrian crossing would provide access between the Collier Club House and History Hill areas near the intersection of Upland Street and Pasadena Avenue. The other pedestrian crossing would provide access between the Collier Club House area and the Spring House area in the central portion of the park.

A concrete sidewalk would be constructed along the western side of Upland Street for the length of the park boundary along this roadway. A connected sidewalk would also extend from Upland Street into the center of the park along the northern side of Pasadena Avenue, terminating at the pedestrian crossing in the Collier Club House area. The portion of the sidewalk within the park boundary would include a handicap ramp and landing system. A separate, unpaved path would be constructed between the plaza area, near the intersection of Upland Street and Pasadena Avenue, and the new club house. Benches would be interspersed throughout the Collier Club House area.

To the extent possible, all walking paths would be handicap accessible and appropriate for all abilities. Paths would be placed to encourage physical activity and facility walkability. Walking paths would create connections within the park and with surrounding streets.

REGULATORY SETTING

Clean Air Act

The Clean Air Act (CAA) of 1970 required the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) with states retaining the option to adopt more stringent standards or to include other specific pollutants. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. The EPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 1 lists the attainment status of San Diego County for the criteria pollutants. The EPA classifies the San Diego Air Basin (SDAB) as in attainment for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and fine particulates (under 2.5

microns or $PM_{2.5}$) with respect to federal air quality standards. The SDAB is currently in basic nonattainment for the federal 8-hour ozone standard. The *Eight Hour Ozone Attainment Plan for San Diego County* was prepared by the SDAPCD in 2007, which identifies control measures to reduce emissions of ozone precursors (VOCs and NO_x) and complies with federal SIP requirements.

The state of California has established standards for criteria pollutants that are generally stricter than federal standards. As shown in Table 1, the SDAB is currently in nonattainment status for the state standards for ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$).

Table 1 San Diego County Air Basin Attainment Status

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone (O_3)	1 Hour	**Nonattainment**	No Federal Standard
	8 Hour		**Basic Nonattainment**
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	**Nonattainment**	No Federal Standard
	24 Hour		Unclassified[(1)]
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	**Nonattainment**	Attainment/Unclassifiable
	24 Hour	No State Standard	
Carbon Monoxide (CO)	8 Hour	Attainment	Maintenance Area[(2)]
	1 Hour		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	No State Standard	Attainment
	1 Hour	Attainment	No Federal Standard
Lead	Calendar Quarter	No State Standard	Attainment
	30 Day Average	Attainment	No Federal Standard
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	No State Standard	Attainment
	24 Hour	Attainment	Attainment
	1 Hour	Attainment	No Federal Standard
Sulfates	24 Hour	Attainment	No Federal Standard
Hydrogen Sulfide	1 Hour	Unclassified	No Federal Standard
Visibility Reducing Particulates	8 Hour (10:00 a.m. to 6:00 p.m., PST)	Unclassified	No Federal Standard

(1) Unclassified; indicates data are not sufficient for determining attainment or nonattainment.
(2) Maintenance Area (defined by U.S. Department of Transportation) is any geographic region of the U.S. previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently re-designated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended.
Source: CARB, Area Designation Maps. Data reflects status as of January 2012.

California Clean Air Act

The California Clean Air Act (CCAA) allows states to adopt AAQS and other regulations provided that they are at least as stringent as federal standards. The CARB, a part of the California EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the California ambient air quality standards (CAAQS). The CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various

types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. The CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

In addition to standards set for the six criteria pollutants, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, in addition to primary and secondary AAQS, the state has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Table 1 lists the state attainment status of the SDAB for the criteria pollutants.

California State Implementation Plan

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA. The most recent version of the SIP for San Diego County is the Eight-Hour Ozone Attainment Plan, adopted in May 2007, which provides plans for attaining and maintaining the 8-hour NAAQS for ozone. This plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the EPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. The SIP does not address impacts from sources of PM_{10} or $PM_{2.5}$, although it does include control measures (rules) to regulate stationary source emissions of those pollutants. Additionally, the 2004 Revisions to the California SIP for carbon monoxide were adopted on July 22, 2004. The original SIP for carbon monoxide was adopted in 1996. The SIP for carbon monoxide demonstrates how the SDAB would continue to maintain compliance with federal carbon monoxide standards.

San Diego County Regional Air Quality Strategy

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County. The SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by the CARB or the EPA. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the SDAPCD. Additionally, the SDAPCD, along with the CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County, including one in Escondido. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the AAQS in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, and most recently in April 2009. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for ozone. The SDAPCD has also developed the SDAB's input to the SIP, which is required under the Federal CAA for pollutants that are designated as being in non-attainment of NAAQS for the basin.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth, to project future emissions and then establish the strategies necessary for the reduction of emissions through regulatory controls. The RAQS and SIP utilized the 2030 Regional Transportation Plan (RTP) prepared by SANDAG to project future growth in the SDAB. As such, projects that propose development that is consistent with the growth anticipated by the RTP would be consistent with the RAQS. In the event that a project would propose development which is less intensive than anticipated within the RAQS, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the growth projections, the project could be in conflict with the RAQS and SIP, and could have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

Measures to Reduce Particulate Matter in San Diego County

In December 2005 the SDAPCD adopted the Measures to Reduce Particulate Matter in San Diego County. This document identifies fugitive dust as the major source of directly emitted particulate matter in the County, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributors to $PM_{2.5}$ in the County are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM_{10} include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by the CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period; and
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-

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out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include: track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations.

City of La Mesa General Plan

The Conservation & Open Space Element of the La Mesa General Plan includes objectives policies related to air quality. The policies are intended to support efforts to improve overall air quality and are divided into three areas: land use actions, regional trip reduction programs and transportation system policies. The General Plan policies and objectives related to air quality are listed below.

Policies

1. The City will maintain programs and procedures which prevent the introduction of commercial or industrial activities which could have a significant negative impact on air quality.
2. The City will support and encourage economical transportation alternatives which reduce auto emissions by reducing vehicle trip lengths and frequencies.
3. The City will encourage the use of transportation modes other than the automobile by implementing land use policies which result in a pattern of residential uses and employment opportunities in close proximity to commercial services, community facilities, employment centers and transit routes.
4. The City will support programs to reduce auto emissions by improving the flow of traffic and other transportation system management programs.
5. The City values trees for their role in processing carbon dioxide in the atmosphere, and win continue efforts to save existing trees and to require planting of new trees in conjunction with public and private developments.

Objectives

1. The Community Development Department will review the Zoning Ordinance to incorporate regional air quality standards and objectives where necessary for commercial and industrial uses.
2. The Community Development Department will review the Zoning Ordinance to consider what standards can be added to preserve and protect stands of mature trees within the City.
3. The Community Development Department and the Public Works Department will review the current standards for street trees and landscaping in the public right-of-way to insure that the plant varieties and quantities specified are adequate.

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BACKGROUND INFORMATION

Climate and Meteorology

Regional climate and local meteorological conditions influence ambient air quality. The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. In La Mesa, the normal daily maximum temperature is 85 degrees Fahrenheit (°F) in August, and the normal daily minimum temperature is 44° F in January, according to the Western Regional Climate Center (WRCC 2012). The normal precipitation in La Mesa is about 13 inches annually, occurring primarily from November through March.

The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools through radiation and the air aloft remain warm. The shallow inversion layer formed between these two air masses can also trap pollutants.

Air Quality Monitoring Data

The criteria air pollutants pertinent to the project analysis are carbon monoxide, nitrogen oxides, ozone, particulate matter, and sulfur oxide (SO_x). The following describes the health effects for each criteria air pollutant based on information published by the EPA (2011) and CARB (2010).

Carbon monoxide (CO) is a colorless, odorless, poisonous gas, produced by incomplete burning of carbon-based fuels, including gasoline, oil, and wood. Carbon monoxide is also produced from incomplete combustion of many natural and synthetic products. For instance, cigarette smoke contains carbon monoxide. When carbon monoxide gets into the body, it combines with chemicals in the blood and prevents the blood from providing oxygen to cells, tissues, and organs. Because the body requires oxygen for energy, high-level exposures to carbon monoxide can cause serious health effects.

Nitrogen oxide (NO_x) is a general term pertaining to compounds, including nitric oxide, nitrogen dioxide, and other oxides of nitrogen. NO_x are produced from burning fuels, including gasoline, diesel, and coal. NO_x react with volatile organic compounds (VOCs) to form smog. NO_x are also major components of acid rain.

Ozone is a corrosive gas composed of three oxygen atoms linked together. Ozone exists in two layers of the atmosphere. It occurs naturally in the stratosphere (upper atmosphere) where it absorbs and provides a protective shield against the sun's damaging ultraviolet radiation. Ozone also exists in the troposphere (lower atmosphere), and even near ground level, where it can cause health effects in humans including respiratory and eye irritation and decreases in lung function and capacity. Ozone is not emitted directly in the air, but at ground level is formed by chemical reactions of "precursor" pollutants – NO_x and VOCs – in the presence of sunlight. Ozone levels are higher during the spring and summer months.

Particulate matter (PM) includes dust, soot, and other tiny bits of solid materials that are released into and move around in the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing and application of fertilizers and pesticides, road construction, industrial processes such as steel making, mining operations, agricultural burning (field and slash burning), and operation of fireplaces and woodstoves. Particulate pollution can cause eye, nose, and throat irritation and other health problems. Particulate matter is measured in microns, which are one millionth of a meter in length (or one-thousandth of a millimeter). PM_{10} is small (respirable) particulate matter measuring 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter no more than 2.5 microns in diameter.

Sulfur dioxide (SO_2) is a pungent, colorless gas formed primarily by the combustion of sulfur-containing fossil fuels, especially coal and oil. Some industrial processes, such as production of paper and smelting of metals, produce sulfur dioxide. Sulfur dioxide emissions have not been a problem in the SDAB because of the low sulfur fuels used in the region (SDAPCD 2007).

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of air pollutants and determine whether the ambient air quality meets the NAAQS and the CAAQS. The closest ambient air quality monitoring station to the project site is in the City of El Cajon on Redwood Avenue. Table 2 includes a summary of the ambient pollutant concentrations monitored at the El Cajon and San Diego stations during the last three years (2009 through 2011). The corresponding NAAQS and CAAQS are also presented in Table 2.

As shown below in Table 2, the 1-hour ozone concentration exceeded the state standard two times in 2009, one time in 2010, and one time in 2011. The 8-hour ozone concentration exceeded both the state and federal standard in 2009, 2010, and 2011. The daily PM_{10} concentration exceeded the state standard in 2009, but not in 2010 or 2011. The federal standard was not exceeded during this period. The federal 24-hour $PM_{2.5}$ standard was violated one time in 2009 and 2011 but was not exceeded in 2010.

Neither the state nor federal standards for carbon monoxide, NO_2, or SO_2 were exceeded at any time during years 2008 through 2010. The federal annual average NO_2 standard has not been exceeded since 1978 and the state 1-hour standard has not been exceeded since 1988 (SDAPCD 2007). With one exception during October 2003, the SDAB has not violated the state or federal standards for carbon monoxide since 1990 (SDAPCD 2007).

Table 2 Air Quality Monitoring

Pollutant	Monitoring Station	2009	2010	2011
Ozone (O_3)				
Maximum 1-hour concentration (ppm)	El Cajon- Redwood Avenue	0.098	0.102	0.105
Days above 1-hour state standard (>0.09 ppm)		2	1	1
Maximum 8-hour concentration (ppm)		0.083	0.078	0.087
Days above 8-hour state standard (>0.07 ppm)		5	6	1
Days above 8-hour federal standard (>0.075 ppm)		2	3	1
Carbon Monoxide (CO)				
Maximum 8-hour concentration (ppm)	El Cajon- Redwood Avenue	--(1)	--(1)	1.46
Days above state or federal standard (>9.0 ppm)		--(1)	--(1)	0
Respirable Particulate Matter (PM_{10})				
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon- Redwood Avenue	57.0	42.0	41.9
Days above state standard (>50 $\mu g/m^3$)		1	0	0
Days above federal standard (>150 $\mu g/m^3$)		0	0	0
Fine Particulate Matter ($PM_{2.5}$)				
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon- Redwood Avenue	56.5	41.0	38.7
Days above federal standard (>35 $\mu g/m^3$)		1	0	1
Nitrogen Dioxide (NO_2)				
Peak 1-hour concentration (ppm)	El Cajon- Redwood Avenue	0.054	0.058	0.049
Days above state 1-hour standard (0.18 ppm)		0	0	0
Sulfur Dioxide (SO_2)				
Maximum 24-hour concentration (ppm)	El Cajon- Redwood Avenue	--(1)	--(1)	0.001
Days above 24-hour state standard (>0.04 ppm)		--(1)	--(1)	0
Days above 24-hour federal standard (>0.14 ppm)		--(1)	--(1)	0

(1)Insufficient data available to determine value
ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter
Source: CARB 2012

STANDARDS OF SIGNIFICANCE

San Diego Air Pollution Control District

The SDAPCD does not provide quantitative thresholds for determining the significance of construction or mobile source-related projects. However, the District does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3) If these incremental levels are exceeded, an AQIA must be performed. Although these trigger levels do not generally apply to general land development projects, for comparative purposes these levels may be used to evaluate the increased emissions from these projects. The screening level thresholds can be used to demonstrate that a project's total emissions would not result in a significant impact to regional air quality. Because the AQIA screening thresholds do not include VOCs, the screening level for VOCs used in this analysis are from the South Coast Air Quality Management District (SCAQMD), which generally has stricter emissions thresholds than SDAPCD. For $PM_{2.5}$, the EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published in 2005, which quantifies significant emissions as 10 tons per year, will be used as the screening level threshold. The trigger thresholds listed in Table 3 below are

used in this analysis to determine whether the project has the potential to violate regional air quality standards.

Table 3 SDAPCD Air Pollutant Thresholds

Pollutant	Pounds Per Day
Carbon monoxide (CO)	550
Nitrogen Oxides (NO_x)	250
Respirable Particulate Matter (PM_{10})	100
Fine Particulate Matter ($PM_{2.5}$)	55[(1)]
Oxides of Sulfur (SO_x)	250
Lead (Pb)	3.2
Volatile Organic Compounds (VOCs)	75[(2)]

(1) EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 2005.
(2) Based on VOC threshold from SCAQMD.
Source: SDAPCD Rule 1501, 20.2 (d)(2), Table 20.2-1.

CONSTRUCTION IMPACTS

Construction activities would result in temporary increases in air pollutant emissions. These emissions would be generated primarily from construction equipment exhaust, earth disturbance, construction worker vehicle trips, and heavy duty truck trips. Air pollutant emissions were estimated using the worst-case activity data and the emission factors included in the CalEEMod model (Version 2011.1.1), which takes into account the hours of operation, load factor, and the emission factors for each piece of equipment. For detailed model assumptions and output, please see Attachment A.

The project would be completed in phases, generally corresponding to the four areas described above, with each phase of construction anticipated to occur over a six to 14 month period. The Panhandle area would be constructed first and would be completed prior to the construction of the other three phases. The remaining areas may be constructed in any order and may be constructed concurrently. Dates of construction are currently unknown. It is assumed that construction of the Panhandle area would begin as early as January 2013, and construction of the other phases would begin as early as January 2014.

Grading of the entire site would require approximately 34,100 cubic yards (CY) of cut and approximately 14,800 CY of fill. Two options for site grading are being considered. The first grading option would balance the cut/fill on-site. Under this option, the History Hill and Collier Club House areas would be graded to reduce the steepness of the slopes within each area, and the cut materials from these areas would be used to fill the natural bowl in the Panhandle area. The second grading option would not balance the cut/fill on-site. This option would result in the import of material to the Panhandle area, and the export of a greater amount of material from the History Hill area and Collier Club House area, and would allow grading of the park site to occur in phases. This analysis assumes the second grading option because it would require more truck trips for hauling and is the worst-case scenario in terms of air pollutant emissions.

Construction equipment required for the project would include a front end loader, backhoe, graders, and dozers. Construction assumptions specific to each of the four projects are described below.

Panhandle. The Panhandle area phase of construction would include 2.6 acres of the park. Construction of this phase would take 12 months and would require demolition of 23,360 square feet (SF) of existing park features and grading of the entire Panhandle area (3 months) and installation of utilities and foundations (3 months). Construction of the new restroom building and installation of landscaping, irrigation, hardscape, and the playgrounds would take approximately 6 months. Grading would require 626 CY of cut material and 8,522 CY of fill. Demolition and grading would require a total of 7,982 truck trips to export soil and material and 8 daily worker commute trips. Installation of utilities and foundations would require a total of 25 material import trips and 12 daily worker commute trips. Restroom construction, hardscaping, and landscaping would require a total of 70 material import trips and 16 daily worker commute trips.

Spring House. The Spring House phase would redevelop approximately 1,300 SF of the existing park. As described in the Project Description, several options for the Spring House are being considered. For the purposes of this air quality analysis, demolition and replacement of the Spring House with an interpretive center is assumed, which is considered the worst-case scenario. Construction of this phase would last approximately 9 months and would require demolition of the existing 1,300 SF Spring House (2 months), construction of the new interpretive center (3 months), and installation of hardscaping and landscaping (4 months). Demolition would require a total of 10 truck trips to dispose of demolished material, and 8 daily worker commute trips. Interpretive center construction would require a total of 11 material import trips and 12 daily worker commute trips.

History Hill. The History Hill phase would develop approximately 2.5 acres of the park. Construction of this phase would take approximately 9 months and would require grading of the area (6 months), installation of hardscaping and walkway areas (1 month), and installation of park features and landscaping (2 months). This phase would require 7,182 CY of cut material and 765 CY of fill. Grading would require a total of 672 truck haul trips to export soil and trees and 6 daily worker commute trips. Hardscaping would require a total of 55 material import trips and 8 daily worker commute trips. Finishing park features and landscaping would require 5 material import trips and 12 daily worker commute trips.

Collier Club House. The Collier Club House phase would develop approximately 2.5 acres of the park. Construction of this phase would take approximately 14 months and would require grading of the area (4 months); installation of utilities and a retaining wall (4 months); construction of the club house, irrigation, and hardscaping (4 months); and installation of final park features and landscaping (2 months). This phase would require 26,273 CY of cut material and 5,487 CY of fill. Grading would require a total of 2,119 truck haul trips to export soil and trees and 8 daily worker commute trips. Retaining wall construction and utilities installation would require a total of 1 material import trip and 12 daily worker commute trips. Hardscaping and club house construction would require 100 material import trips and 16 daily worker commute trips. Finishing park features and landscaping would require 10 material import trips and 8 daily worker commute trips.

The maximum daily emissions from construction of the Panhandle area are included in Table 3. Maximum daily emissions from construction of the Spring House phase are shown in Table 4. Maximum

daily emissions from construction of the History Hill phase are shown in Table 5. Maximum daily emissions from construction of the Collier Club House phase are shown in Table 6. As shown in Table 3 through Table 6, all emissions from individual project phases are below the recommended regional significance thresholds. However, simultaneous construction activities may occur. The worst-case construction scenario assumes that the most intense construction activities associated with the Spring Hill, History Hill, and Collier Club House Phases would occur concurrently. The worst-case construction scenario emissions are shown in Table 7. As shown in Table 7, all emissions from the worst-case construction scenario are below the recommended regional significance thresholds. Therefore, impacts related to criteria air pollutant emissions would be less than significant during construction.

Table 3 Construction Daily Maximum Air Pollutant Emissions—Panhandle

Phase	Maximum Daily Emissions (pounds/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Demolition and Grading	9	76	44	0	31	7
Utilities and Foundation Installation	4	25	17	0	2	2
Construction of restroom and Installation of Park Features, Hardscape, and Landscape	13	58	36	0	3	4
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

Table 4 Construction Daily Maximum Air Pollutant Emissions—Spring House

Phase	Maximum Daily Emissions (pounds/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Demolition	2	11	8	0	1	1
Interpretive Center Construction	3	15	11	0	1	1
Installation of Hardscaping and Landscaping	2	13	9	0	1	1
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

Table 5 Construction Daily Maximum Air Pollutant Emissions—History Hill

Phase	Maximum Daily Emissions (pounds/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Grading	5	38	23	0	24	5
Hardscape and Walkway Construction	5	33	22	0	3	2
Park Feature and Landscape Installation	4	25	18	0	2	2
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

Table 6 Estimated Construction Maximum Air Pollutant Emissions—Collier Club House

Phase	Maximum Daily Emissions (pounds/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Grading	6	48	28	0	58	6
Utilities and Retaining Wall Installation	7	56	33	0	3	3
Club House Construction and Irrigation and Hardscaping Installation	10	62	40	0	5	4
Park Feature and Landscape Installation	3	20	15	0	2	2
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

Table 7 Estimated Construction Maximum Air Pollutant Emissions—Concurrent Construction

Phase	Maximum Daily Emissions (pounds/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Spring House Interpretive Center Construction	3	15	11	0	1	1
History Hill Grading	5	38	23	0	24	5
Collier Club House Grading	6	48	28	0	58	6
Total Emissions	***14***	***101***	***62***	***0***	***83***	***12***
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

OPERATION EMISSIONS

Operation of the proposed project would result in criteria air pollutant emissions from vehicle trips associated with visitors to the park, and area sources such as operation of landscape equipment, application of architectural coatings, and use of other consumer products during maintenance of park facilities. Vehicular emissions are based on the traffic impact analysis prepared for the project (Chen Ryan 2012). The proposed project would generate approximately 851 daily vehicle trips. Maximum daily emissions at buildout of Collier Park are shown in Table 6. As shown in Table 8, all emissions from operation of all phases of the proposed project are below the recommended regional significance thresholds. Therefore, impacts related to criteria air pollutant emissions would be less than significant during operation.

Table 8 Operational Daily Maximum Air Pollutant Emissions

Phase	Maximum Daily Emissions (pounds/day)[1]					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Vehicular Emissions	5	10	48	0	6	<1
Area Source Emissions	<1	0	<1	0	0	0
Total Operational Emissions	***6***	***10***	***49***	***0***	***6***	***<1***
SDAPCD Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Impact?	No	No	No	No	No	No

[1]Maximum daily emissions for buildout of Collier Park. Includes Panhandle, Spring House, History Hill, and Collier Club House components.
Source: CalEEMod Version 2011.1.1. See Attachment A for model output.

CUMULATIVE IMPACTS

The geographic context for the analysis of cumulative impacts relative to criteria air pollutants is the SDAB. The SDAB is currently in basic non-attainment status for the federal (NAAQS) ozone standard. The SDAB is also a non-attainment area for the state (CAAQS) standards for ozone, $PM_{10,}$ and $PM_{2.5}$. Therefore, a significant cumulative impact to air quality for ozone precursors (VOCs and NOx), PM_{10}, and $PM_{2.5}$ currently exists. Consequently, the greatest concern involving criteria pollutants is whether a project would result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or exceed screening-level criteria thresholds of ozone precursors (NO_X and VOCs).

A localized pollutant concentration analysis is applicable to the analysis of the cumulative impacts of construction emissions because construction emissions would be temporary. Pollutant emissions would disperse or settle out following construction and would not contribute to long-term concentrations of emissions in the SDAB. Short-term emissions from construction would present a localized health concern if multiple construction projects would take place at the same time and would exceed the significance thresholds. Therefore, construction projects that do not take place at the same time do not contribute to the same short-term cumulative impact.

Neither the City nor SDAPCD has adopted specific emission thresholds by which to evaluate the significance of cumulative air quality impacts of projects within its jurisdiction. Additionally, the SDAPCD has not established screening thresholds for localized impacts. In lieu of any set quantitative air quality significance thresholds for localized impacts, the Localized Significance Thresholds established by the SCAQMD (SCAQMD 2009) are used to determine potential cumulative impacts. Based on the thresholds, NO_x emissions decrease approximately 95 percent beyond approximately 2,600 feet. Therefore, cumulative projects 2,600 feet from project site are excluded from the cumulative NO_x analysis. According to the Localized Significance Thresholds, PM_{10} decreases approximately 95 percent by 1,200 feet, and $PM_{2.5}$ by 1,300 feet. SCAQMD has not established a threshold for VOCs. However, VOCs disperse relatively quickly (California Indoor Air Quality 2011); therefore, it is assumed that VOC pollutant concentrations would disperse by 95 percent beyond 2,600 feet, similar to NO_x. Therefore, cumulative projects 1,200 feet from the project site are excluded from the cumulative PM_{10} analysis, projects 1,300 feet from the site are excluded from the $PM_{2.5}$ analysis, and projects 2,600 feet from the site are excluded from the cumulative VOC analysis. The cumulative projects located within these screening distances are listed in Table 9.

Table 9 Cumulative Projects Relevant to Air Quality Analysis

Cumulative Project No.	Project Location	Description	Approximate Distance to Project Site (Feet)	Applicable Pollutants
1	4301 Palm Avenue	Palm Spring Liquor Project (4,000 SF addition to existing 2,400 SF Palm Spring Liquor store)	1,300	NO_x, $PM_{2.5}$, VOC
2	Downtown Village	Downtown Village Streetscape Improvement Project	2,400	NO_x, VOC

Source: City of La Mesa 2012

As shown in Table 9, the closest cumulative project to Collier Park is the construction of a 4,000 SF retail structure approximately 1,300 SF from the project site (Cumulative Project #1). This project is outside of the screening distance for PM_{10}, but is within the screening distance for $PM_{2.5}$, NO_x, and VOCs. Worst-case construction emissions for the proposed project would occur if the Spring House, History Hill, and Collier Club House phases would be constructed concurrently, as shown in Table 7. Based on the Localized Significance Thresholds, emissions of NO_x and VOCs from the project site would be reduced by approximately 33 percent halfway between the project site and the Palm Spring Liquor project, to a maximum of 68 pounds per day for NO_x, and 9 pounds per day for VOCs. $PM_{2.5}$ emissions would be reduced by approximately 79 percent, to a maximum of 3 pounds per day. At this distance, emissions from the project site would be less than 30 percent of the maximum daily emissions threshold for any pollutant. Construction of the Palm Liquor Store project would be expected to result in substantially fewer construction emissions compared to the proposed project because it would not require grading and hauling, but would likely have similar emissions associated with building construction. Emissions would also reduced by similar proportions away from the construction site. Therefore, combined emissions from the proposed project and the Palm Spring Liquor project would not exceed the significance thresholds and result in a cumulative impact.

The remaining cumulative project that could be developed concurrently with construction of the proposed project is located further away than the Palm Liquor Store and consists of streetscape improvements that would require minor construction. This project would require only minor grading, if any, and limited construction. Therefore, this project would be expected to result in substantially fewer construction emissions compared to the proposed project. Therefore, a cumulative impact would not result from construction of this project. The proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact during construction.

Similar to cumulative construction impacts, neither the City nor SDAPCD has adopted specific emission thresholds by which to evaluate the significance of cumulative operational air quality impacts of projects within its jurisdiction. Additionally, the SDAPCD has not established screening thresholds for localized impacts. Therefore, the County of San Diego's Guidelines for Determining Significance – Air Quality (2007) are used to determine potential operational cumulative impacts. According to the County of San Diego guidelines for determining significance, a project would result in a significant cumulatively considerable contribution to air quality impacts during operation if the project does not conform to the RAQS, has a significant direct impact to air quality, or would cause a road intersection to operate at or below LOS E. The project would make improvements to the existing Collier Park and would not result in a new land use that would generate growth that would exceed the projections in the RAQS. As shown in

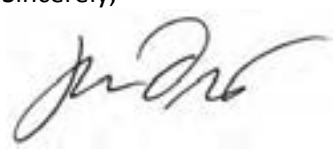
Table 8, operation of the project would result in minimal emissions of NO_X, VOCs, carbon monoxide, PM_{10}, and $PM_{2.5}$, and would not result in a significant direct air quality impact. The project includes new sidewalks and walkways that would encourage residents to a walk to the park rather than drive. Events at the park would occur at various times throughout the day and most events would occur during the weekend. Events would not occur every day; an average of 17 events per month is anticipated. Therefore, operation of the park would not result in substantial new trips during peak traffic hours. Increases in traffic as a result of the project would be sporadic and would not result in a permanent increase in traffic on one particular roadway that would cause an intersection to operate at or below LOS E. The project would not result in a cumulatively considerable contribution to a significant air quality impact during operation.

SUMMARY

Construction and operation of the proposed project would result in less than significant direct and cumulative criteria air pollutant emissions. No mitigation measures are required.

If you have any questions regarding this analysis, please do not hesitate to call at (858) 514-1023 or email at joanne.dramko@atkinsglobal.com.

Sincerely,



Joanne M. Dramko, AICP, GISP
Senior Environmental Manager

Attachment A: CalEEMod air quality model output

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Phase 1 - Panhandle

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Unrefrigerated Warehouse-No Rail	0.36	1000sqft
City Park	2.59	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Based on schedule from City

Off-road Equipment -

Off-road Equipment - small site, small areas worked on at a time. only one roller needed

Off-road Equipment - small site, one of each piece of equipment

Off-road Equipment - Concurrent with grading so just one additional backhoe/loader

Off-road Equipment -

Off-road Equipment - small site, only need one of each

Trips and VMT - based on truck trips from client

Demolition -

Grading - site acreage, no offsite disturbance

Vehicle Trips - change warehouse to match City Park rate

Landscape Equipment - Maintained everyday

Energy Use - park would use some electricity for lighting and events. assume same as warehouse because warehouse would also use minimal lighting for security and inside restroom area

Water And Wastewater - changed water use to match City Park rate

Solid Waste - changed to match city park rate

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	9.37	76.15	44.40	0.08	26.98	3.91	30.90	3.33	3.89	7.22	0.00	8,179.92	0.00	0.82	0.00	8,197.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2013	9.37	76.15	44.40	0.08	6.50	3.91	10.41	3.33	3.89	7.22	0.00	8,179.92	0.00	0.82	0.00	8,197.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.29	0.61	2.94	0.00	0.37	0.02	0.39	0.01	0.02	0.02		358.97		0.02		359.42
Total	**0.30**	**0.61**	**2.94**	**0.00**	**0.37**	**0.02**	**0.39**	**0.01**	**0.02**	**0.02**		**358.97**		**0.02**	**0.00**	**359.42**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.29	0.60	2.91	0.00	0.36	0.02	0.38	0.01	0.02	0.02		355.51		0.02		355.95
Total	**0.30**	**0.60**	**2.91**	**0.00**	**0.36**	**0.02**	**0.38**	**0.01**	**0.02**	**0.02**		**355.51**		**0.02**	**0.00**	**355.95**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.37	0.00	0.37	0.00	0.00	0.00						0.00
Off-Road	3.96	31.16	18.04	0.03		1.68	1.68		1.68	1.68		3,120.33		0.36		3,127.81
Total	**3.96**	**31.16**	**18.04**	**0.03**	**0.37**	**1.68**	**2.05**	**0.00**	**1.68**	**1.68**		**3,120.33**		**0.36**		**3,127.81**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.77	0.36	0.00	2.00	0.03	2.03	0.00	0.03	0.03		112.73		0.00		112.80
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00		41.84		0.00		41.90
Total	**0.08**	**0.80**	**0.63**	**0.00**	**2.05**	**0.03**	**2.08**	**0.00**	**0.03**	**0.03**		**154.57**		**0.00**		**154.70**

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.37	0.00	0.37	0.00	0.00	0.00						0.00
Off-Road	3.96	31.16	18.04	0.03		1.68	1.68		1.68	1.68	0.00	3,120.33		0.36		3,127.81
Total	**3.96**	**31.16**	**18.04**	**0.03**	**0.37**	**1.68**	**2.05**	**0.00**	**1.68**	**1.68**	**0.00**	**3,120.33**		**0.36**		**3,127.81**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.06	0.77	0.36	0.00	0.00	0.03	0.03	0.00	0.03	0.03		112.73		0.00		112.80
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		41.84		0.00		41.90
Total	**0.08**	**0.80**	**0.63**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**		**154.57**		**0.00**		**154.70**

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.09	0.00	6.09	3.31	0.00	3.31						0.00
Off-Road	4.70	37.12	22.15	0.04		1.94	1.94		1.94	1.94		3,827.58		0.42		3,836.44
Total	**4.70**	**37.12**	**22.15**	**0.04**	**6.09**	**1.94**	**8.03**	**3.31**	**1.94**	**5.25**		**3,827.58**		**0.42**		**3,836.44**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.60	7.05	3.30	0.01	18.42	0.26	18.68	0.01	0.24	0.25		1,035.59		0.03		1,036.20
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00		41.84		0.00		41.90
Total	**0.62**	**7.08**	**3.57**	**0.01**	**18.47**	**0.26**	**18.73**	**0.01**	**0.24**	**0.25**		**1,077.43**		**0.03**		**1,078.10**

3.3 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.09	0.00	6.09	3.31	0.00	3.31						0.00
Off-Road	4.70	37.12	22.15	0.04		1.94	1.94		1.94	1.94	0.00	3,827.58		0.42		3,836.44
Total	**4.70**	**37.12**	**22.15**	**0.04**	**6.09**	**1.94**	**8.03**	**3.31**	**1.94**	**5.25**	**0.00**	**3,827.58**		**0.42**		**3,836.44**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.60	7.05	3.30	0.01	0.04	0.26	0.30	0.01	0.24	0.25		1,035.59		0.03		1,036.20
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00		41.84		0.00		41.90
Total	**0.62**	**7.08**	**3.57**	**0.01**	**0.04**	**0.26**	**0.30**	**0.01**	**0.24**	**0.25**		**1,077.43**		**0.03**		**1,078.10**

3.4 Base/Utilities/Foundations - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.38	20.93	13.57	0.02		1.79	1.79		1.79	1.79		1,922.37		0.30		1,928.72
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.38**	**20.93**	**13.57**	**0.02**		**1.79**	**1.79**		**1.79**	**1.79**		**1,922.37**		**0.30**		**1,928.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.36	4.27	2.44	0.01	0.23	0.14	0.37	0.01	0.13	0.14		681.50		0.02		681.88
Worker	0.07	0.08	0.82	0.00	0.16	0.01	0.16	0.00	0.01	0.01		125.53		0.01		125.70
Total	**0.43**	**4.35**	**3.26**	**0.01**	**0.39**	**0.15**	**0.53**	**0.01**	**0.14**	**0.15**		**807.03**		**0.03**		**807.58**

3.4 Base/Utilities/Foundations - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.38	20.93	13.57	0.02		1.79	1.79		1.79	1.79	0.00	1,922.37		0.30		1,928.72
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.38**	**20.93**	**13.57**	**0.02**		**1.79**	**1.79**		**1.79**	**1.79**	**0.00**	**1,922.37**		**0.30**		**1,928.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.36	4.27	2.44	0.01	0.02	0.14	0.16	0.01	0.13	0.14		681.50		0.02		681.88
Worker	0.07	0.08	0.82	0.00	0.01	0.01	0.01	0.00	0.01	0.01		125.53		0.01		125.70
Total	**0.43**	**4.35**	**3.26**	**0.01**	**0.03**	**0.15**	**0.17**	**0.01**	**0.14**	**0.15**		**807.03**		**0.03**		**807.58**

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.28	21.65	12.86	0.03		1.33	1.33		1.33	1.33		2,426.87		0.29		2,433.02
Total	**3.28**	**21.65**	**12.86**	**0.03**		**1.33**	**1.33**		**1.33**	**1.33**		**2,426.87**		**0.29**		**2,433.02**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.06	0.68	0.39	0.00	0.04	0.02	0.06	0.00	0.02	0.02		109.04		0.00		109.10
Worker	0.05	0.05	0.54	0.00	0.10	0.00	0.11	0.00	0.00	0.00		83.69		0.01		83.80
Total	**0.11**	**0.73**	**0.93**	**0.00**	**0.14**	**0.02**	**0.17**	**0.00**	**0.02**	**0.02**		**192.73**		**0.01**		**192.90**

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.28	21.65	12.86	0.03		1.33	1.33		1.33	1.33	0.00	2,426.87		0.29		2,433.02
Total	**3.28**	**21.65**	**12.86**	**0.03**		**1.33**	**1.33**		**1.33**	**1.33**	**0.00**	**2,426.87**		**0.29**		**2,433.02**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.06	0.68	0.39	0.00	0.00	0.02	0.03	0.00	0.02	0.02		109.04		0.00		109.10
Worker	0.05	0.05	0.54	0.00	0.00	0.00	0.01	0.00	0.00	0.00		83.69		0.01		83.80
Total	**0.11**	**0.73**	**0.93**	**0.00**	**0.00**	**0.02**	**0.04**	**0.00**	**0.02**	**0.02**		**192.73**		**0.01**		**192.90**

3.6 Landscape/Irrigation/Hardscape/Playground - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.38	20.93	13.57	0.02		1.79	1.79		1.79	1.79		1,922.37		0.30		1,928.72
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.38**	**20.93**	**13.57**	**0.02**		**1.79**	**1.79**		**1.79**	**1.79**		**1,922.37**		**0.30**		**1,928.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.96	11.26	6.45	0.02	0.61	0.37	0.98	0.02	0.34	0.36		1,799.16		0.05		1,800.15
Worker	0.05	0.05	0.54	0.00	0.10	0.00	0.11	0.00	0.00	0.00		83.69		0.01		83.80
Total	**1.01**	**11.31**	**6.99**	**0.02**	**0.71**	**0.37**	**1.09**	**0.02**	**0.34**	**0.36**		**1,882.85**		**0.06**		**1,883.95**

3.6 Landscape/Irrigation/Hardscape/Playground - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.38	20.93	13.57	0.02		1.79	1.79		1.79	1.79	0.00	1,922.37		0.30		1,928.72
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.38**	**20.93**	**13.57**	**0.02**		**1.79**	**1.79**		**1.79**	**1.79**	**0.00**	**1,922.37**		**0.30**		**1,928.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.96	11.26	6.45	0.02	0.05	0.37	0.42	0.02	0.34	0.36		1,799.16		0.05		1,800.15
Worker	0.05	0.05	0.54	0.00	0.00	0.00	0.01	0.00	0.00	0.00		83.69		0.01		83.80
Total	**1.01**	**11.31**	**6.99**	**0.02**	**0.05**	**0.37**	**0.43**	**0.02**	**0.34**	**0.36**		**1,882.85**		**0.06**		**1,883.95**

3.7 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	**0.55**	**2.96**	**1.94**	**0.00**		**0.27**	**0.27**		**0.27**	**0.27**		**281.19**		**0.04**		**282.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
Total	**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**

3.7 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	**0.55**	**2.96**	**1.94**	**0.00**		**0.27**	**0.27**		**0.27**	**0.27**	**0.00**	**281.19**		**0.04**		**282.10**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
Total	**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**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Spring House

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Unrefrigerated Warehouse-No Rail	1.3	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Assume hardscaping around Spring House

Construction Phase - Based on construction assumptions from City

Off-road Equipment -

Off-road Equipment - small site, one of each piece of equipment

Off-road Equipment - Small site, only need one tractor

Off-road Equipment - small site, one of each piece of equipment

Trips and VMT - Based on information from the City

Demolition -

Vehicle Trips - Changed trip rate to match City Park rate

Landscape Equipment - Maintenance every day

Water And Wastewater - change to match City park rate

Solid Waste - change to match City Park rate

Mobile Land Use Mitigation -

Grading -

Energy Use - no natural gas use

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	2.68	14.89	10.61	0.02	0.37	1.07	1.18	0.00	1.07	1.07	0.00	2,004.70	0.00	0.19	0.00	2,008.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2014	2.68	14.89	10.61	0.02	0.04	1.07	1.07	0.00	1.07	1.07	0.00	2,004.70	0.00	0.19	0.00	2,008.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.04	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00		3.89		0.00		3.89
Total	**0.04**	**0.01**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**3.89**		**0.00**	**0.00**	**3.89**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.04	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00		3.85		0.00		3.85
Total	**0.04**	**0.01**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**3.85**		**0.00**	**0.00**	**3.85**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00						0.00
Off-Road	1.47	10.48	7.25	0.01		0.74	0.74		0.74	0.74		1,166.32		0.13		1,169.07
Total	**1.47**	**10.48**	**7.25**	**0.01**	**0.03**	**0.74**	**0.77**	**0.00**	**0.74**	**0.74**		**1,166.32**		**0.13**		**1,169.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.12	0.06	0.00	0.23	0.00	0.24	0.00	0.00	0.00		19.71		0.00		19.72
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.11	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.05**	**0.17**	**0.56**	**0.00**	**0.33**	**0.00**	**0.35**	**0.00**	**0.00**	**0.00**		**101.65**		**0.00**		**101.76**

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00						0.00
Off-Road	1.47	10.48	7.25	0.01		0.74	0.74		0.74	0.74	0.00	1,166.32		0.13		1,169.07
Total	**1.47**	**10.48**	**7.25**	**0.01**	**0.03**	**0.74**	**0.77**	**0.00**	**0.74**	**0.74**	**0.00**	**1,166.32**		**0.13**		**1,169.07**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.01	0.12	0.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00		19.71		0.00		19.72
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.05**	**0.17**	**0.56**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**		**101.65**		**0.00**		**101.76**

3.3 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.55	10.30	6.95	0.01		0.61	0.61		0.61	0.61		1,300.25		0.14		1,303.17
Total	**1.55**	**10.30**	**6.95**	**0.01**		**0.61**	**0.61**		**0.61**	**0.61**		**1,300.25**		**0.14**		**1,303.17**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.74	0.99	0.00	0.10	0.06	0.16	0.00	0.05	0.06		300.35		0.01		300.50
Worker	0.07	0.07	0.75	0.00	0.16	0.01	0.16	0.00	0.01	0.01		122.91		0.01		123.06
Total	**0.22**	**1.81**	**1.74**	**0.00**	**0.26**	**0.07**	**0.32**	**0.00**	**0.06**	**0.07**		**423.26**		**0.02**		**423.56**

3.3 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.55	10.30	6.95	0.01		0.61	0.61		0.61	0.61	0.00	1,300.25		0.14		1,303.17
Total	**1.55**	**10.30**	**6.95**	**0.01**		**0.61**	**0.61**		**0.61**	**0.61**	**0.00**	**1,300.25**		**0.14**		**1,303.17**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.74	0.99	0.00	0.01	0.06	0.06	0.00	0.05	0.06		300.35		0.01		300.50
Worker	0.07	0.07	0.75	0.00	0.01	0.01	0.01	0.00	0.01	0.01		122.91		0.01		123.06
Total	**0.22**	**1.81**	**1.74**	**0.00**	**0.02**	**0.07**	**0.07**	**0.00**	**0.06**	**0.07**		**423.26**		**0.02**		**423.56**

3.4 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.46					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	**0.91**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**		**281.19**		**0.04**		**282.03**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
Total	**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**

3.4 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.46					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**0.91**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	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
Total	**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**

3.5 Finishing, Hardscaping - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.05	12.93	8.99	0.01		1.07	1.07		1.07	1.07		1,294.96		0.18		1,298.82
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.05**	**12.93**	**8.99**	**0.01**		**1.07**	**1.07**		**1.07**	**1.07**		**1,294.96**		**0.18**		**1,298.82**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.11	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.04**	**0.05**	**0.50**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**81.94**		**0.00**		**82.04**

3.5 Finishing, Hardscaping - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.05	12.93	8.99	0.01		1.07	1.07		1.07	1.07	0.00	1,294.96		0.18		1,298.82
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.05**	**12.93**	**8.99**	**0.01**		**1.07**	**1.07**		**1.07**	**1.07**	**0.00**	**1,294.96**		**0.18**		**1,298.82**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.04**	**0.05**	**0.50**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**		**81.94**		**0.00**		**82.04**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

History Hill Area

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
City Park	2.5	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Based on construction schedule from City

Trips and VMT - Information from City

Grading - only site disturbed

Vehicle Trips - Consistent with SANDAG ADT estimate for regional park

Landscape Equipment - landscape every working day

Energy Use - no natural gas use, but some electricity for lighting and ampitheatre use

Water And Wastewater -

Solid Waste -

Mobile Land Use Mitigation -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	4.70	37.51	23.01	0.04	21.78	2.33	23.66	3.32	2.31	5.19	0.00	4,323.70	0.00	0.41	0.00	4,332.36
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2014	4.70	37.51	23.01	0.04	6.07	2.33	7.95	3.32	2.31	5.19	0.00	4,323.70	0.00	0.41	0.00	4,332.36
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.24	0.48	2.24	0.00	0.35	0.02	0.37	0.00	0.02	0.02		325.04		0.02		325.39
Total	**0.24**	**0.48**	**2.24**	**0.00**	**0.35**	**0.02**	**0.37**	**0.00**	**0.02**	**0.02**		**325.04**		**0.02**	**0.00**	**325.39**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.23	0.47	2.23	0.00	0.35	0.02	0.37	0.00	0.02	0.02		321.90		0.02		322.25
Total	**0.23**	**0.47**	**2.23**	**0.00**	**0.35**	**0.02**	**0.37**	**0.00**	**0.02**	**0.02**		**321.90**		**0.02**	**0.00**	**322.25**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.05	0.00	6.05	3.31	0.00	3.31						0.00
Off-Road	4.44	34.77	21.37	0.04		1.77	1.77		1.77	1.77		3,827.58		0.40		3,835.93
Total	**4.44**	**34.77**	**21.37**	**0.04**	**6.05**	**1.77**	**7.82**	**3.31**	**1.77**	**5.08**		**3,827.58**		**0.40**		**3,835.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.23	2.71	1.26	0.00	15.65	0.10	15.75	0.00	0.09	0.10		434.67		0.01		434.90
Vendor	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
Worker	0.03	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.00		61.45		0.00		61.53
Total	**0.26**	**2.75**	**1.63**	**0.00**	**15.73**	**0.10**	**15.83**	**0.00**	**0.09**	**0.10**		**496.12**		**0.01**		**496.43**

3.2 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.05	0.00	6.05	3.31	0.00	3.31						0.00
Off-Road	4.44	34.77	21.37	0.04		1.77	1.77		1.77	1.77	0.00	3,827.58		0.40		3,835.93
Total	**4.44**	**34.77**	**21.37**	**0.04**	**6.05**	**1.77**	**7.82**	**3.31**	**1.77**	**5.08**	**0.00**	**3,827.58**		**0.40**		**3,835.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.23	2.71	1.26	0.00	0.01	0.10	0.11	0.00	0.09	0.10		434.67		0.01		434.90
Vendor	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
Worker	0.03	0.04	0.37	0.00	0.00	0.00	0.01	0.00	0.00	0.00		61.45		0.00		61.53
Total	**0.26**	**2.75**	**1.63**	**0.00**	**0.01**	**0.10**	**0.12**	**0.00**	**0.09**	**0.10**		**496.12**		**0.01**		**496.43**

3.3 DG Prep and Concrete - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.90**	**24.53**	**16.67**	**0.03**		**2.05**	**2.05**		**2.05**	**2.05**		**2,393.42**		**0.35**		**2,400.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.74	8.70	4.95	0.01	0.51	0.29	0.79	0.01	0.26	0.28		1,501.75		0.04		1,502.51
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.11	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.78**	**8.75**	**5.45**	**0.01**	**0.61**	**0.29**	**0.90**	**0.01**	**0.26**	**0.28**		**1,583.69**		**0.04**		**1,584.55**

3.3 DG Prep and Concrete - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.90**	**24.53**	**16.67**	**0.03**		**2.05**	**2.05**		**2.05**	**2.05**	**0.00**	**2,393.42**		**0.35**		**2,400.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.74	8.70	4.95	0.01	0.04	0.29	0.32	0.01	0.26	0.28		1,501.75		0.04		1,502.51
Worker	0.04	0.05	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.78**	**8.75**	**5.45**	**0.01**	**0.04**	**0.29**	**0.33**	**0.01**	**0.26**	**0.28**		**1,583.69**		**0.04**		**1,584.55**

3.4 Finish/Landscaping - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.90**	**24.53**	**16.67**	**0.03**		**2.05**	**2.05**		**2.05**	**2.05**		**2,393.42**		**0.35**		**2,400.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.79	0.45	0.00	0.05	0.03	0.07	0.00	0.02	0.03		136.52		0.00		136.59
Worker	0.07	0.07	0.75	0.00	0.16	0.01	0.16	0.00	0.01	0.01		122.91		0.01		123.06
Total	**0.14**	**0.86**	**1.20**	**0.00**	**0.21**	**0.04**	**0.23**	**0.00**	**0.03**	**0.04**		**259.43**		**0.01**		**259.65**

3.4 Finish/Landscaping - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.90**	**24.53**	**16.67**	**0.03**		**2.05**	**2.05**		**2.05**	**2.05**	**0.00**	**2,393.42**		**0.35**		**2,400.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.79	0.45	0.00	0.00	0.03	0.03	0.00	0.02	0.03		136.52		0.00		136.59
Worker	0.07	0.07	0.75	0.00	0.01	0.01	0.01	0.00	0.01	0.01		122.91		0.01		123.06
Total	**0.14**	**0.86**	**1.20**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**		**259.43**		**0.01**		**259.65**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Collier Club House

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Other Non-Asphalt Surfaces	4.9	1000sqft
City Park	2.44	Acre
Racquet Club	2.5	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on project description and City information

Construction Phase - Based on construction schedule from City

Off-road Equipment - small structure, need one of each

Off-road Equipment -

Off-road Equipment - small site, need one of each

Off-road Equipment - small site, need one of each

Off-road Equipment - small site, need one of each

Off-road Equipment - for utilities trenching

Trips and VMT - Information from City

Grading - only site disturbed

Vehicle Trips - raquet club too high for this use. changed to match city park

Landscape Equipment - landscape every working day

Energy Use - no natural gas use, but some electricity for lighting for park area

Water And Wastewater - deleted outdoor use for racquet club, divided water use by half because events only expected 15 days/month

Solid Waste - divided racquet club by half because events only expected 15 days/month

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	10.27	61.74	39.87	0.08	55.61	3.72	57.86	3.34	3.67	5.56	0.00	8,081.08	0.00	0.68	0.00	8,095.44
2015	3.15	20.06	14.93	0.02	0.26	1.57	1.84	0.00	1.57	1.57	0.00	2,325.94	0.00	0.28	0.00	2,331.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2014	10.27	61.74	39.87	0.08	6.18	3.72	8.43	3.34	3.67	5.56	0.00	8,081.08	0.00	0.68	0.00	8,095.44
2015	3.15	20.06	14.93	0.02	0.01	1.57	1.59	0.00	1.57	1.57	0.00	2,325.94	0.00	0.28	0.00	2,331.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.21	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Mobile	0.23	0.48	2.24	0.00	0.35	0.02	0.37	0.00	0.02	0.02		324.71		0.02		325.07
Total	**0.44**	**0.49**	**2.25**	**0.00**	**0.35**	**0.02**	**0.37**	**0.00**	**0.02**	**0.02**		**334.21**		**0.02**	**0.00**	**334.63**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.21	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Mobile	0.23	0.47	2.22	0.00	0.35	0.02	0.37	0.00	0.02	0.02		321.58		0.02		321.93
Total	**0.44**	**0.48**	**2.23**	**0.00**	**0.35**	**0.02**	**0.37**	**0.00**	**0.02**	**0.02**		**331.08**		**0.02**	**0.00**	**331.49**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.11	0.00	6.11	3.32	0.00	3.32						0.00
Off-Road	4.44	34.77	21.37	0.04		1.77	1.77		1.77	1.77		3,827.58		0.40		3,835.93
Total	**4.44**	**34.77**	**21.37**	**0.04**	**6.11**	**1.77**	**7.88**	**3.32**	**1.77**	**5.09**		**3,827.58**		**0.40**		**3,835.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.09	12.86	6.00	0.02	49.37	0.47	49.85	0.02	0.44	0.46		2,064.00		0.05		2,065.10
Vendor	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
Worker	0.06	0.06	0.62	0.00	0.13	0.00	0.14	0.00	0.00	0.01		102.42		0.01		102.55
Total	**1.15**	**12.92**	**6.62**	**0.02**	**49.50**	**0.47**	**49.99**	**0.02**	**0.44**	**0.47**		**2,166.42**		**0.06**		**2,167.65**

3.2 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.11	0.00	6.11	3.32	0.00	3.32						0.00
Off-Road	4.44	34.77	21.37	0.04		1.77	1.77		1.77	1.77	0.00	3,827.58		0.40		3,835.93
Total	**4.44**	**34.77**	**21.37**	**0.04**	**6.11**	**1.77**	**7.88**	**3.32**	**1.77**	**5.09**	**0.00**	**3,827.58**		**0.40**		**3,835.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.09	12.86	6.00	0.02	0.07	0.47	0.54	0.02	0.44	0.46		2,064.00		0.05		2,065.10
Vendor	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
Worker	0.06	0.06	0.62	0.00	0.00	0.00	0.01	0.00	0.00	0.01		102.42		0.01		102.55
Total	**1.15**	**12.92**	**6.62**	**0.02**	**0.07**	**0.47**	**0.55**	**0.02**	**0.44**	**0.47**		**2,166.42**		**0.06**		**2,167.65**

3.3 Fine Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00						0.00
Off-Road	3.97	32.23	17.37	0.04		1.50	1.50		1.50	1.50		3,917.77		0.36		3,925.23
Total	**3.97**	**32.23**	**17.37**	**0.04**	**0.03**	**1.50**	**1.53**	**0.00**	**1.50**	**1.50**		**3,917.77**		**0.36**		**3,925.23**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.10	0.00	0.11	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.04**	**0.05**	**0.50**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**81.94**		**0.00**		**82.04**

3.3 Fine Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00						0.00
Off-Road	3.97	32.23	17.37	0.04		1.50	1.50		1.50	1.50	0.00	3,917.77		0.36		3,925.23
Total	**3.97**	**32.23**	**17.37**	**0.04**	**0.03**	**1.50**	**1.53**	**0.00**	**1.50**	**1.50**	**0.00**	**3,917.77**		**0.36**		**3,925.23**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.04	0.05	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00		81.94		0.00		82.04
Total	**0.04**	**0.05**	**0.50**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**		**81.94**		**0.00**		**82.04**

3.4 Utilities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.68	4.98	3.99	0.01		0.27	0.27		0.27	0.27		672.11		0.06		673.37
Total	**0.68**	**4.98**	**3.99**	**0.01**		**0.27**	**0.27**		**0.27**	**0.27**		**672.11**		**0.06**		**673.37**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**		**30.73**		**0.00**		**30.77**

3.4 Utilities - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.68	4.98	3.99	0.01		0.27	0.27		0.27	0.27	0.00	672.11		0.06		673.37
Total	**0.68**	**4.98**	**3.99**	**0.01**		**0.27**	**0.27**		**0.27**	**0.27**	**0.00**	**672.11**		**0.06**		**673.37**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**30.73**		**0.00**		**30.77**

3.5 Retaining Wall - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.13	10.53	0.02		1.02	1.02		1.02	1.02		2,219.58		0.21		2,223.92
Total	**2.31**	**18.13**	**10.53**	**0.02**		**1.02**	**1.02**		**1.02**	**1.02**		**2,219.58**		**0.21**		**2,223.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.01	0.16	0.09	0.00	0.01	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.03**	**0.18**	**0.28**	**0.00**	**0.05**	**0.01**	**0.05**	**0.00**	**0.00**	**0.01**		**58.03**		**0.00**		**58.09**

3.5 Retaining Wall - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.31	18.13	10.53	0.02		1.02	1.02		1.02	1.02	0.00	2,219.58		0.21		2,223.92
Total	**2.31**	**18.13**	**10.53**	**0.02**		**1.02**	**1.02**		**1.02**	**1.02**	**0.00**	**2,219.58**		**0.21**		**2,223.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.01	0.16	0.09	0.00	0.00	0.01	0.01	0.00	0.00	0.01		27.30		0.00		27.32
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.03**	**0.18**	**0.28**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**		**58.03**		**0.00**		**58.09**

3.6 Club House - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.01	20.07	12.62	0.03		1.20	1.20		1.20	1.20		2,426.86		0.27		2,432.52
Total	**3.01**	**20.07**	**12.62**	**0.03**		**1.20**	**1.20**		**1.20**	**1.20**		**2,426.86**		**0.27**		**2,432.52**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	3.16	1.80	0.01	0.18	0.10	0.29	0.00	0.10	0.10		546.09		0.01		546.37
Worker	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.29**	**3.18**	**1.99**	**0.01**	**0.22**	**0.10**	**0.33**	**0.00**	**0.10**	**0.10**		**576.82**		**0.01**		**577.14**

3.6 Club House - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.01	20.07	12.62	0.03		1.20	1.20		1.20	1.20	0.00	2,426.86		0.27		2,432.52
Total	**3.01**	**20.07**	**12.62**	**0.03**		**1.20**	**1.20**		**1.20**	**1.20**	**0.00**	**2,426.86**		**0.27**		**2,432.52**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	3.16	1.80	0.01	0.01	0.10	0.12	0.00	0.10	0.10		546.09		0.01		546.37
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		30.73		0.00		30.77
Total	**0.29**	**3.18**	**1.99**	**0.01**	**0.01**	**0.10**	**0.12**	**0.00**	**0.10**	**0.10**		**576.82**		**0.01**		**577.14**

3.7 Hardscape - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.17	19.81	13.46	0.02		1.65	1.65		1.65	1.65		1,922.37		0.28		1,928.34
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.17**	**19.81**	**13.46**	**0.02**		**1.65**	**1.65**		**1.65**	**1.65**		**1,922.37**		**0.28**		**1,928.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.34	15.82	9.00	0.03	0.92	0.52	1.44	0.02	0.48	0.50		2,730.45		0.07		2,731.84
Worker	0.07	0.08	0.81	0.00	0.17	0.01	0.18	0.00	0.01	0.01		133.15		0.01		133.32
Total	**1.41**	**15.90**	**9.81**	**0.03**	**1.09**	**0.53**	**1.62**	**0.02**	**0.49**	**0.51**		**2,863.60**		**0.08**		**2,865.16**

3.7 Hardscape - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.17	19.81	13.46	0.02		1.65	1.65		1.65	1.65	0.00	1,922.37		0.28		1,928.34
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**3.17**	**19.81**	**13.46**	**0.02**		**1.65**	**1.65**		**1.65**	**1.65**	**0.00**	**1,922.37**		**0.28**		**1,928.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.34	15.82	9.00	0.03	0.07	0.52	0.59	0.02	0.48	0.50		2,730.45		0.07		2,731.84
Worker	0.07	0.08	0.81	0.00	0.01	0.01	0.01	0.00	0.01	0.01		133.15		0.01		133.32
Total	**1.41**	**15.90**	**9.81**	**0.03**	**0.08**	**0.53**	**0.60**	**0.02**	**0.49**	**0.51**		**2,863.60**		**0.08**		**2,865.16**

3.8 Club House Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.95					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	**2.40**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**		**281.19**		**0.04**		**282.03**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00		10.24		0.00		10.26
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**		**10.24**		**0.00**		**10.26**

3.8 Club House Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.95					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**2.40**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		10.24		0.00		10.26
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**10.24**		**0.00**		**10.26**

3.9 Finish/Landscaping - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.96	18.51	13.35	0.02		1.52	1.52		1.52	1.52		1,922.37		0.27		1,927.96
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.96**	**18.51**	**13.35**	**0.02**		**1.52**	**1.52**		**1.52**	**1.52**		**1,922.37**		**0.27**		**1,927.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.12	1.47	0.83	0.00	0.09	0.05	0.14	0.00	0.04	0.05		273.44		0.01		273.57
Worker	0.07	0.07	0.75	0.00	0.17	0.01	0.18	0.00	0.01	0.01		130.13		0.01		130.29
Total	**0.19**	**1.54**	**1.58**	**0.00**	**0.26**	**0.06**	**0.32**	**0.00**	**0.05**	**0.06**		**403.57**		**0.02**		**403.86**

3.9 Finish/Landscaping - 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	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.96	18.51	13.35	0.02		1.52	1.52		1.52	1.52	0.00	1,922.37		0.27		1,927.96
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.96**	**18.51**	**13.35**	**0.02**		**1.52**	**1.52**		**1.52**	**1.52**	**0.00**	**1,922.37**		**0.27**		**1,927.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.12	1.47	0.83	0.00	0.01	0.05	0.06	0.00	0.04	0.05		273.44		0.01		273.57
Worker	0.07	0.07	0.75	0.00	0.01	0.01	0.01	0.00	0.01	0.01		130.13		0.01		130.29
Total	**0.19**	**1.54**	**1.58**	**0.00**	**0.02**	**0.06**	**0.07**	**0.00**	**0.05**	**0.06**		**403.57**		**0.02**		**403.86**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Collier Park Operation

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
City Park	7.53	Acre
Unrefrigerated Warehouse-No Rail	1.66	1000sqft
Racquet Club	2.5	1000sqft
Other Non-Asphalt Surfaces	4.9	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Acreages based on site plan

Construction Phase -

Vehicle Trips - Based on TIA

Landscape Equipment - Assume landscape operations on all business days

Energy Use - Assume clubhouse use for rest of park b/c most conservative. Only club house has potential to use natural gas

Water And Wastewater - Changed other uses based on City park default usage. Divided default raquet club use in half b/c club house only anticipated to be used 15 days/month

Solid Waste - Divided default raquet club use in half b/c club house only anticipated to be used 15 days/month. Adjusted other uses based on city park rate

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Mobile	4.83	10.01	48.28	0.06	6.03	0.35	6.39	0.08	0.31	0.40		5,900.59		0.35		5,907.91
Total	**5.08**	**10.02**	**48.29**	**0.06**	**6.03**	**0.35**	**6.39**	**0.08**	**0.31**	**0.40**		**5,910.09**		**0.35**	**0.00**	**5,917.47**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Mobile	4.80	9.93	47.90	0.06	5.97	0.35	6.32	0.08	0.31	0.39		5,843.58		0.35		5,850.84
Total	**5.05**	**9.94**	**47.91**	**0.06**	**5.97**	**0.35**	**6.32**	**0.08**	**0.31**	**0.39**		**5,853.08**		**0.35**	**0.00**	**5,860.40**

3.0 Construction Detail

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.80	9.93	47.90	0.06	5.97	0.35	6.32	0.08	0.31	0.39		5,843.58		0.35		5,850.84
Unmitigated	4.83	10.01	48.28	0.06	6.03	0.35	6.39	0.08	0.31	0.40		5,900.59		0.35		5,907.91
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	843.36	843.36	843.36	1,800,449	1,782,445
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Racquet Club	6.50	6.50	6.50	13,877	13,738
Unrefrigerated Warehouse-No Rail	4.32	4.32	4.32	9,214	9,122
Total	854.18	854.18	854.18	1,823,540	1,805,305

4.3 Trip Type Information

	Miles			Trip %		
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
City Park	9.50	7.30	7.30	33.00	48.00	19.00

	Miles			Trip %		
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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
Racquet Club	9.50	7.30	7.30	33.00	48.00	19.00
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
NaturalGas Unmitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Racquet Club	80.7534	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Unrefrigerated Warehouse-No Rail	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**9.50**		**0.00**	**0.00**	**9.56**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Racquet Club	0.0807534	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.50		0.00	0.00	9.56
Unrefrigerated Warehouse-No Rail	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**9.50**		**0.00**	**0.00**	**9.56**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.06					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.19					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.25**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.06					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.19					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.25**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation