Appendix F. Greenhouse Gas Emissions and Energy Technical Memorandum

This page intentionally left blank.

Harris & Associates

MEMORANDUM

To: Anthony Shute, Director of Community Development, City of El Cajon
From: Sharon Toland, Project Manager, Harris & Associates
RE: Comparison of Weld Boulevard Distribution Center Project Components to Forester Creek Industrial Park Project 2009 Environmental Impact Report Components – Greenhouse Gas Emissions and Energy Impacts
Date: January 5, 2021
CC: Darin Neufeld, Diane Sandman, Ryan Binns, Harris & Associates
Susan Guerra, Lee Chesnut, Chesnut Properties
Att: 1, Model Outputs

Chesnut Properties (project applicant) is proposing the development of the proposed Weld Boulevard Distribution Center Project (project) on approximately 31.7 acres in the City of El Cajon, California (Figure 1, Regional Location). The project site is part of the Gillespie Field airport located directly east of the site and is owned by the County of San Diego (County). The City of El Cajon/City of Santee jurisdictional boundary coincides with the northern and northwestern project site property lines. The project site is bounded by industrial land use and one residence in the City of Santee to the north and northwest, respectively. The remainder of the site is bounded by land uses in the City of El Cajon, including the County Operations Facility to the southwest, Weld Boulevard to the south, Cuyamaca Street to the east, Prospect Avenue to the north, and a concrete-lined section of the Forester Creek channel to the northeast. The project site is relatively flat and was previously graded. Prior uses included a golf driving range and cement processing facility. Currently, the project site consists of disturbed open space (Figure 2, Project Site).

In compliance with the California Environmental Quality Act (CEQA), an Addendum to the Forester Creek Industrial Park Project Environmental Impact Report (2009 EIR) is being prepared for the project. The 2009 EIR evaluated an industrial park project with approximately 463,000 square feet of industrial development. The project has since changed, and the current project proposes development of an approximately 142,000-square-foot distribution warehouse, office space, parking, and designated product pick-up and drop-off areas (Figure 3, USGS Topographic Map; Figure 4, Proposed Site Plan). The warehouse square footage would include space for an approximately 17,000-square-foot office to be at the southern end of the warehouse. The remainder of the project site would be developed with surface parking, which would contain approximately 967 total parking spaces, including designated spaces for associates, support staff, managers, personal vans, and warehouse delivery vans in the northern, eastern, and western outskirts of the project site. The project would also include a van loading area consisting of approximately 72 spaces directly west of the warehouse and a van staging area for approximately 72 vans immediately next to the van loading area. There would be 15 dock-high doors (above grade) and a trailer and box truck loading area for approximately 13 vehicles north of the proposed warehouse. Access to the site would be via three driveways on Weld Boulevard—one across from Gillespie Way and two between the intersections of Gillespie Way and Cuyamaca Street. A 6-foot-high solid perimeter wall may be required along the western and northern project boundaries. This memorandum presents a conservative analysis that does not include construction of the perimeter wall and does not assume any noise barrier attenuation.

The delivery station would operate 24 hours per day, 7 days per week, to support the delivery of packages to customer locations between 11:00 a.m. and 9:00 p.m. Delivery operations would consist of approximately 230 delivery vans loading and departing from the delivery station at a rate of 75 vans every 20 minutes in the morning (between 9:50 a.m. and 11:10 a.m.) and returning to the delivery station in the evening (between 7:10 p.m. and

9:10 p.m.). Approximately 21 line-haul trucks would deliver packages to the delivery station each night primarily between the hours of 10:00 p.m. and 8:00 a.m. However, during the holiday season, peak operation may reach up to 600 vans and 48 trucks in a 24-hour period.

The purpose of this memorandum is to compare the components of the Forester Creek Industrial Park Project (2009 project) in the 2009 EIR (PBS&J 2009) to those of the proposed project to determine whether the potential greenhouse gas (GHG) impacts of the proposed project are adequately addressed in the certified 2009 EIR. For each issue addressed in Section 4.6, Global Climate Change, in the 2009 EIR, the following analysis summarizes the GHG impacts of the 2009 project and provides a comparison to the potential impacts of the proposed project.

Table 1 summarizes the changes in land use between the 2009 EIR and the proposed project.

Table 1. Comparison of 2009 Project Components with Proposed Project – Construction

2009 Project	Proposed Project
Industrial Park (463,000 gsf)	Distribution Warehouse (125,756 gsf)
Parking Spaces (490 parking spaces)	Parking Spaces (967 parking spaces)
—	Office Space (17,000 gsf)
Total: 463,000 gsf development; 490 parking spaces	**Total:** 142,756 gsf development; 967 parking spaces

Notes: 2009 project = Forester Creek Industrial Park Project; gsf = gross square feet

Issues 1 and 2: Project Contribution to Global Climate Change and Impacts of Global Climate Change on the Proposed Project

Based on Appendix G of the CEQA Guidelines, implementation of the project would have a significant impact if it would generate GHG emissions, either directly or indirectly, that would contribute significantly to global climate change. The project would not result in a significant impact to global climate change if GHG emissions from construction and operation are minimized through GHG-reducing features. In addition to contributing to global climate change, a project could be exposed to impacts from climate change. The project would result in a significant impact if it were impacted by the effects of global climate change.

Summary of 2009 EIR Impacts

GHG emissions from construction and operation of the 2009 project as identified in the 2009 EIR are summarized below, followed by a summary of the potential effects of climate change on the 2009 project.

Construction

The 2009 EIR assessed the impacts associated with the construction of four buildings totaling 463,000 square feet on the site. Construction of the 2009 project included three phases taking place between March 2010 and February 2013. Construction of the project was anticipated to use standard construction equipment, including scrapers, graders, dozers, water trucks, cranes, forklifts, welders, concrete saws, pavers, rollers, and paving equipment. Construction activities from the 2009 project were determined to result in a temporary increase in GHG emissions from the operation of heavy equipment and vehicles during construction. Carbon dioxide (CO_2) emissions were estimated for each phase of the 2009 project construction using the URBEMIS Model. The three phases of construction were calculated to result in a total of 2,960 metric tons (MT) of CO_2.

Operation

Operational sources of GHG from the 2009 project would include electricity, natural gas, and vehicular use. Mobile source GHG emissions were estimated for 2009 project operation based on the vehicle emissions predicted by the EMFAC 2007 Model. As shown in Table 2, the GHG emissions associated with operation of the 2009 project were estimated to result in a total of 14,776 additional MT CO_2e per year compared to existing conditions. Reduction measures were identified to ensure the 2009 project would not have a significant impact on climate change.

Anticipated reduction measures included use of public transit by future employees due to the project site's proximity to the Gillespie Field trolley station and bicycle paths.

Table 2. Operational GHG Emissions (metric tons/year)

Emissions Source	Annual Emissions (MT/year)		
	CO_2	N_2O	CH_4
Electricity Use	2,390	0.010	0.018
Natural Gas Use	273	0.005	0.03
Vehicular Use	12,113	—	0.68
Total	**14,776**	**0.015**	**0.68**
Global Warming Potential Factor	*1*	*310*	*21*
CO_2e Emissions	14,776	5	0.68
Total CO_2e Emissions	**14,795**		

Source: PB&J 2009.

Notes: CH_4 = methane; CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent; MT = metric ton; N_2O = nitrous oxide

Impacts of Global Climate Change on the 2009 Project

Impacts of global climate change, including biological resources, sea-level rise, natural disasters, and potable water supply, that could affect the 2009 project are summarized below.

Biological Resources

Changes in climate alter habitats and their biological dynamics, making them uninhabitable for some species and allowing other species to move in. However, the area surrounding the project site is highly developed, and impacts to biological resources on the site would be mitigated to less than significant. Additionally, construction of the proposed project would not block any existing wildlife corridors that would negatively impact the ability for wildlife to adapt to global climate change. Therefore, the 2009 EIR concluded that biological resources on the project site would not be negatively affected as temperatures continue to rise.

Sea-Level Rise

Under the higher warming scenario, the Intergovernmental Panel on Climate Change anticipates sea levels to rise 4 to 30 inches in the San Diego region by the year 2100. The project site is inland and, after construction of the 2009 project, would be elevated to a minimum of 350 feet above mean sea level. Based on the 2009 project's geographic location, the 2009 EIR determined that rising sea levels would have less than significant impacts on the project site.

Natural Disasters

Climate change could result in increased flooding and weather-related disasters. The channelized portion of Forester Creek is lined with concrete, which could collect more water with increased precipitation events. The northeastern portion of the project site is in Flood Hazard Zone X, and the remainder of the site is in Zone X. Both zones are above the base flood elevation, and neither is in the 100-year floodplain. Because the grading elevation of the project site was determined to be at least 2 feet above the base flood elevation, the 2009 EIR concluded that the 2009 project would avoid impacts from flooding and weather-related disasters as a result of global climate change.

Potable Water Supply

Changes in precipitation would have the potential to alter the sources of water that currently serve the City of El Cajon and the rest of Southern California. The 2009 project was anticipated to generate a small demand for water due to operational uses. The 2009 EIR also determined that the 2009 project would not directly induce population growth, which could result in a significant increase for water. Therefore, the 2009 EIR concluded that the magnitude of the impact that a water shortage would have on the 2009 project would be minimal.

Summary

Although implementation of the 2009 project would result in a new source of GHG emissions from project construction and operation, the 2009 project would include design features to reduce GHG emissions, including its proximity to transit and the use of impervious surfaces. Additionally, operation of the 2009 project would ultimately be required to meet the regulatory requirements of Assembly Bill 32 for reductions in GHG emissions. Therefore, it was determined that implementation of the 2009 project would not generate enough GHG emissions to individually influence global climate change.

Due to the location and elevation of the project site and the cumulative effect of global climate change, including sea-level rise, natural disasters and flooding, and water supply, it was determined that the 2009 project would have a less than significant impact related to climate change.

Weld Boulevard Distribution Center Project Consistency Evaluation

Construction and operational GHG emissions associated with the proposed project are addressed separately below, followed by a summary of the potential effects of climate change on the proposed project. GHG emissions from construction and operation of the proposed project were estimated using CalEEMod, Version 2016.3.2, based on project assumptions provided by the project applicant (Attachment 1, Model Outputs). This model replaces the previously used URBEMIS Model and includes an estimate of CO_2e and GHG emissions from water and wastewater use, solid waste, and area sources. The updated GHG analysis for the proposed project includes these additional sources and emissions of methane (CH_4) and nitrous oxide (N_2O) for construction, reported as CO_2e. These sources and gases were not reported in the 2009 EIR due to modeling limitations. The inclusion of these sources and gases in the proposed project does not represent new sources of GHG emissions compared to the 2009 project.

Construction

Similar to the 2009 project, construction of the proposed project would include grading, paving, building construction, and architectural coating activities. The start of construction is assumed to begin in April 2021 and last approximately 50 weeks.

It is assumed that the architectural coating would overlap with the building construction phases. The total disturbance area would be approximately 27 acres, and the import of 20,000 cubic yards of excavated material is assumed. Construction of the proposed project is estimated to result in total GHG emissions of 763 MT CO_2e compared to 2,960 MT CO_2 under the 2009 project. See Attachment 1 for model output. Total GHG emissions from construction would be reduced compared to the emissions identified for the 2009 project.

Operation

The proposed project is calculated to result in fewer operational trips, the largest source of project GHG emissions, compared to the number of trips identified for the 2009 project. The 2009 EIR estimated that the 2009 project would generate 3,704 average daily trips. In comparison, the proposed project would result in 1,994 average daily trips.[1] CalEEMod default assumptions were used to estimate the remaining emissions sources. Table 3 shows a comparison of operational GHG emissions associated with electricity use, natural gas use, and vehicular emissions between the 2009 project and the proposed project.

[1] During typical operation, approximately 9 months per year, average daily trips are estimated to be 1,476 trips per day. During the approximately 3-month holiday season, trips would increase to 3,548 per day. The average over a 12 month (annual) period is 1,994.

Table 3. Proposed Project Operational Greenhouse Gas Emissions

Emissions Source	Annual Emissions (MT/year)
Area	0.017
Energy	340.27
Mobile	3,362.70
Waste	67.04
Water	186.54
Proposed Project Total CO_2e Emissions	**3,956.58**
2009 Project Total CO_2e Emissions	**14,795**

Source: See Attachment 1 for model output.

Notes: CO_2e = carbon dioxide equivalent; MT = metric ton

As shown in Table 3, GHG emissions from the proposed project would not result in an increase in operational GHG emissions compared to those accounted for in the 2009 EIR. The net change in calculated annual GHG emissions is a reduction of 10,838 MT CO_2 compared to the number of GHG emissions identified in the 2009 EIR. Additionally, the modeling is conservative and does not take into account the site user's corporate sustainability policy, which sets a goal to reach zero net carbon by 2040 by setting an interim target to use 100 percent renewable energy by 2025 ([User]. n.d.). The user intends to meet these goals by installing on-site solar panels, pursuing green building certifications, using carbon neutral packaging (50 percent of shipments net zero carbon by 2030), and electrifying their company-wide transportation fleet (10,000 electric vehicle fleet by 2022 and 100,000 by 2030). Therefore, the operational GHG emissions associated with the proposed project would be reduced compared to the GHG emissions identified in the 2009 EIR.

Impacts of Global Climate Change on the Proposed Project

Impacts of global climate change, including biological resources, sea-level rise, natural disasters, and potable water supply, that could affect the proposed project are summarized below.

Biological Resources

The area surrounding the project site remains highly developed and does not support regional wildlife corridors or habitat linkages. As was found in the 2009 EIR, construction of the proposed project would not block any existing wildlife corridors that would negatively impact the ability for wildlife to adapt to global climate change. Therefore, the impact of climate change on biological resources is the same as the impact identified in the 2009 EIR.

Sea-Level Rise

The City of San Diego's Vulnerability Assessment report estimated that the City of San Diego may experience between 1.6 to 2.5 feet of sea-level rise by the year 2050 and between 3.3 and 6.5 feet by the year 2100 (City of San Diego 2020). Although the projections show greater levels of sea-level rise since the 2009 EIR was prepared (estimated between 4 and 30 inches), the project location has not changed. The project site is inland and, after construction, would be elevated to a minimum of 346 feet above mean sea level (SanGIS 2020). Based on the site's geographic location, potential rising sea levels would have a less than significant impact on the proposed project. This is the same impact same as the impact identified in the 2009 EIR.

Natural Disasters

As assessed in the 2009 EIR, climate change could result in increased flooding and weather-related disasters. No changes in the flood zone designations intersecting the project site have occurred since certification of the 2009 EIR. The project site would be designed to handle the flows of a 100-year storm event to avoid flooding on site. The impact of climate change related to natural disasters on the proposed project would be less than significant. This is the same impact as same as the impact identified in the 2009 EIR.

Potable Water Supply

The proposed project is anticipated to generate a small demand for water due to operational uses. However, due to the decrease in the project size, water demand would decrease compared to demand identified for the 2009 project. Moreover, the proposed project would not directly induce population growth, which is a greater determinant for water demand. As required by state mandates and consistent with the 2009 project, the proposed project would install drought-tolerant native plant material for landscaping, which would require less water than non-native landscape materials. These efforts would reduce the magnitude of the impact that a climate-induced water shortage would have on the proposed project. The impact would be less than significant, consistent with the 2009 EIR.

Summary

Combined construction and operation of the proposed project would not exceed the GHG emissions assumed for buildout in the 2009 EIR. The proposed project would be consistent with the site user's corporate sustainability policy, which includes design and operational measures to reduce GHG emissions ([User]. n.d.). Therefore, the proposed project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding GHG emissions. Due to the location and elevation of the project site, the cumulative effect of global climate change, including biological disruptions, sea-level rise, natural disasters and flooding, and water supply, would not be greater than the cumulative effect identified in the 2009 EIR. The proposed project would result in the same less than significant impact as the impact identified in the 2009 EIR.

Issue 3: Energy Consumption

The implementation of the project would have a significant impact if it was identified to result in wasteful, inefficient, and unnecessary consumption of energy.

Summary of 2009 EIR Impacts

Energy consumption from construction and operation of the 2009 project as identified in the 2009 EIR is summarized below.

Construction

Construction of the 2009 project would result in the consumption of fuel associated with the operation of construction equipment. Due to a number of unknown factors, including the specific site conditions, the horsepower of the engine, the load factor of each machine, and the number of days each piece of equipment would be used, it was not possible to determine in the 2009 EIR the precise total fuel consumption that would occur during construction. However, because no unusual project site characteristics were included in the 2009 project, it was assumed that project construction would not necessitate the use of construction equipment that would be less energy efficient than comparable construction sites in the region or state. Therefore, the 2009 EIR determined that construction fuel consumption associated with the project site would not result in wasteful, inefficient, or unnecessary use of energy during project construction.

Operation

Transportation Energy Demand

Based on the Traffic Impact Analysis conducted as part of the 2009 EIR, the 2009 project would generate 3,704 average daily trips from passenger vehicles and 470 average daily trips from large trucks. The passenger vehicles were represented as a mix of light-duty automobiles and light-duty trucks (78 percent automobiles and 22 percent trucks). The large truck trips were represented by heavy-duty trucks. The average vehicle miles traveled was assumed to be 20 miles per trip.

The Traffic Impact Analysis was used to determine the 2009 project's fuel consumption from project operation. Based on the Traffic Impact Analysis's estimation of average daily trips, vehicle miles traveled, and average fuel

economy of vehicles (Bureau of Transportation Statistics 2008), total daily fuel consumption was estimated to be approximately 2,782 gallons per day. However, similar to Issue 1, fuel consumption would be reduced due to the 2009 project's proximity to the Gillespie Field trolley station and Forester Creek bicycle path, which would allow future employees to use alternative modes of transportation and to reduce the 2009 project's consumption of fuel. Therefore, it was determined that the 2009 project's transportation energy demand would not result in the wasteful, inefficient, or unnecessary consumption of energy.

Building Demand

Electricity demand was estimated based on the square footage of total building space and consumption rates for interior electricity demand derived from similar projects featuring manufacturing facilities provided by MPE Consulting, Inc. Exterior lighting energy demand was calculated based on the proposed Site Lighting Design Plan. Operation of the 2009 project was estimated to result in a total electric demand of 8,642 kilowatts. San Diego Gas & Electric verified that the 2009 project was within the parameters of projected energy load growth in the area. Furthermore, energy-efficient measures in the 2009 project buildings and Outdoor Lighting Plan would comply with the California Energy Code and, in some cases, exceed the requirements of the code. Therefore, it was determined that the 2009 project would not result in wasteful, inefficient, or unnecessary consumption of energy.

Natural Gas Energy Demand

Natural gas consumption of the 2009 project would ultimately depend on the specific manufacturing processes that take place on the project site, and the average natural gas consumption rates from the South Coast Air Quality Management District CEQA Air Quality Handbook were used (SCAQMD 1993) to prepare the 2009 EIR. Assuming a consumption rate of 2 cubic feet per month per square foot for a manufacturing facility, the 2009 project would use approximately 925,000 cubic feet of natural gas per month. San Diego Gas & Electric verified that the proposed natural gas loads of the 2009 project were within the parameters of projected load growth in the region; therefore, it was determined that the 2009 project would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Summary

The 2009 EIR concluded the 2009 project would not result in a significant impact associated with energy consumption.

Weld Boulevard Distribution Center Project Consistency Evaluation

Construction and operational energy consumption associated with the proposed project are addressed separately below.

Construction

As described in the project description above, the proposed project is smaller than the 2009 project, and the total construction effort to build the project would be reduced. Construction would not result in GHG emissions beyond those accounted for in buildout of the 2009 project. Therefore, it can be assumed that fuel use would be reduced as well. Project construction would also not necessitate the use of construction equipment that would be less energy efficient than comparable construction sites in the region or state. As such, the proposed project would result in reduced energy use compared to the energy use identified for the 2009 project during construction. Energy consumption for construction would not be wasteful, inefficient, or unnecessary and the impact would be less than significant.

Operation

Transportation Energy Demand

As discussed under Issue 1, the proposed project is calculated to result in fewer operational trips compared to the number of trips identified for the 2009 project. Therefore, it can be assumed that less fuel would be consumed than what was identified for the 2009 project.

Building Demand

Because the proposed project is significantly smaller than the 2009 project, it can also be assumed that building energy demand associated with the operation of the warehouse and office space would be less than what was identified for the 2009 project. The site user's corporate sustainability policy would further minimize energy use by expanding building control system technology and real-time data analytics to optimize heating and cooling systems ([User]. n.d.). As such, the proposed project would result in reduced energy use compared to the energy use identified for 2009 project during operation.

Natural Gas Energy Demand

As is the case for building energy demand, because the proposed project is significantly smaller than the 2009 project, it can be assumed that the natural gas energy demand associated with the operation of the warehouse and office space would be less than what was identified for the 2009 project.

Summary

The construction and operation of the proposed project would result in less energy demand than what was identified for the 2009 project, and energy consumption would not be wasteful, inefficient, or unnecessary. Therefore, this less than significant impact would be the same as the impact identified in the 2009 EIR.

Summary of GHG Emissions and Energy Impacts

Impacts related to GHG emissions and energy consumption from construction and operation of the proposed project would be the same as those identified in the 2009 EIR (i.e. less than significant). The proposed project would result in a net decrease in GHG emissions or energy demand compared to those calculated for the 2009 project and would achieve GHG reductions through implementation of the site user's corporate sustainability policy. The proposed project would not include any new sources of GHG emissions or energy demand that were not previously addressed, and no new significant impacts would occur compared to those in the 2009 EIR. Therefore, the proposed project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to GHG emissions or energy consumption.

References

Bureau of Transportation Statistics. 2008. National Transportation Statistics (Updated April 2008). November 6. Accessed January 2021. https://www.bts.gov/product/national-transportation-statistics.

City of San Diego. 2020. Climate Change Vulnerability Assessment. February.

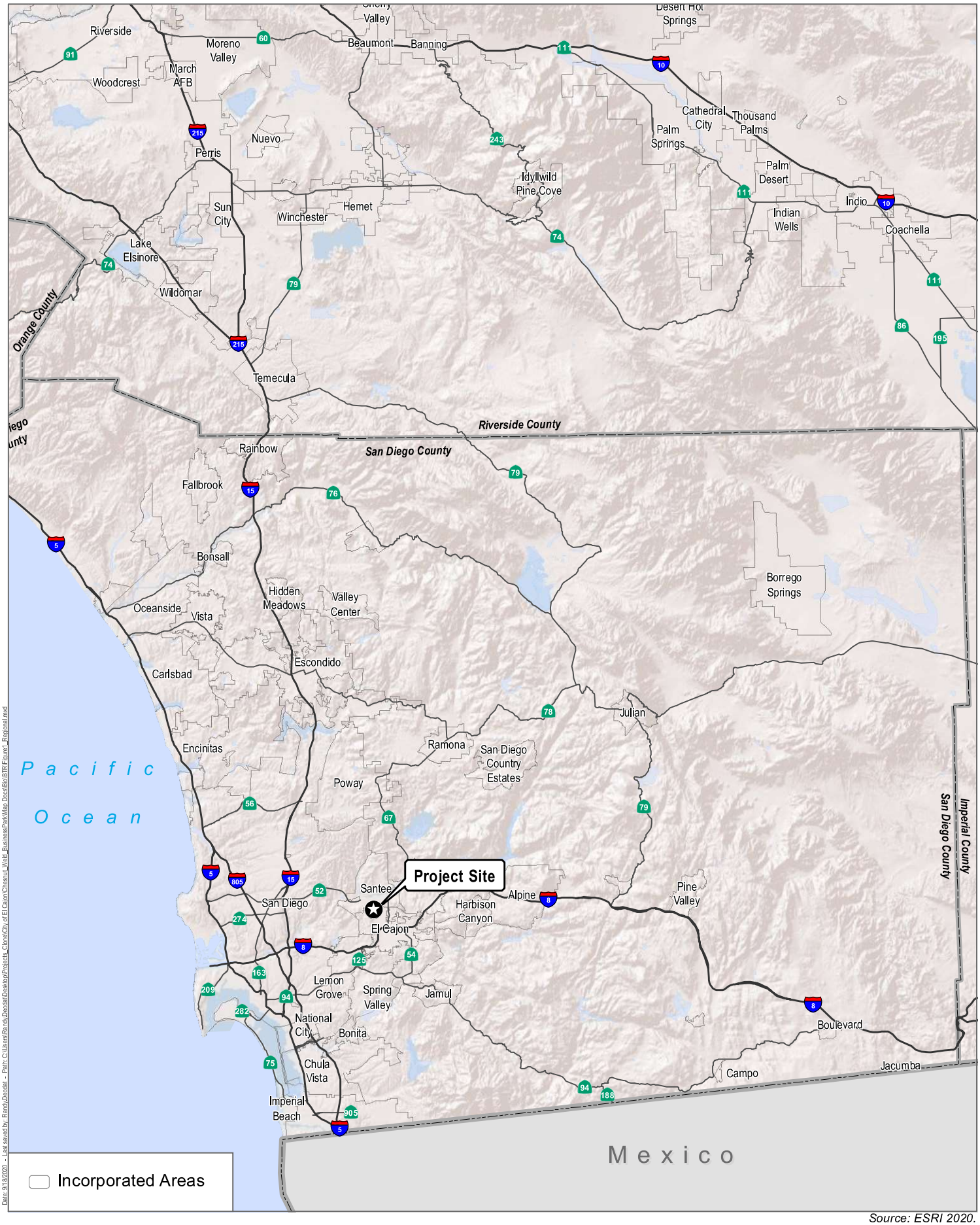
Harris (Harris & Associates). 2021. Biological Technical Report Update for the Weld Boulevard Distribution Center Project. January.

PBS&J. 2009. Forester Creek Industrial Park Project Environmental Impact Report. March 13.

SanGIS (San Diego Geographic Information Source). 2020. Elevation data.

SCAQMD (South Coast Air Quality Management District). 1993. CEQA Air Quality Handbook.

[User]. n.d. Sustainable Operations. Unpublished. Source withheld for reasons of confidentiality.



Source: ESRI 2020.

Harris & Associates

N

0 5 10
Miles

Figure 1
Regional Location
Weld Boulevard Distribution Center Project

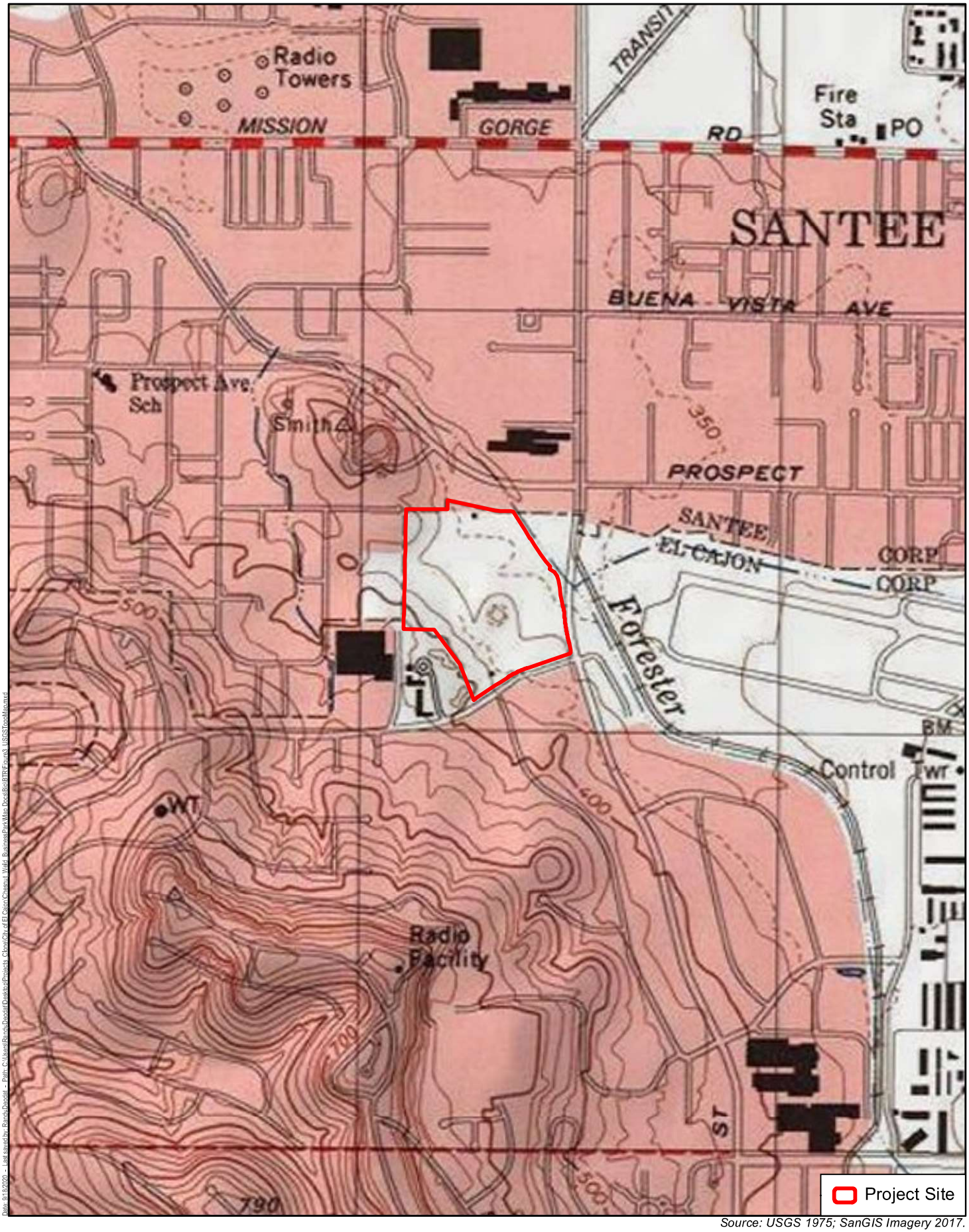
Source: SanGIS Imagery 2017.

Harris & Associates

N

0 200 400
Feet

Figure 2
Project Site
Weld Boulevard Distribution Center Project



Source: USGS 1975; SanGIS Imagery 2017.

Harris & Associates

N

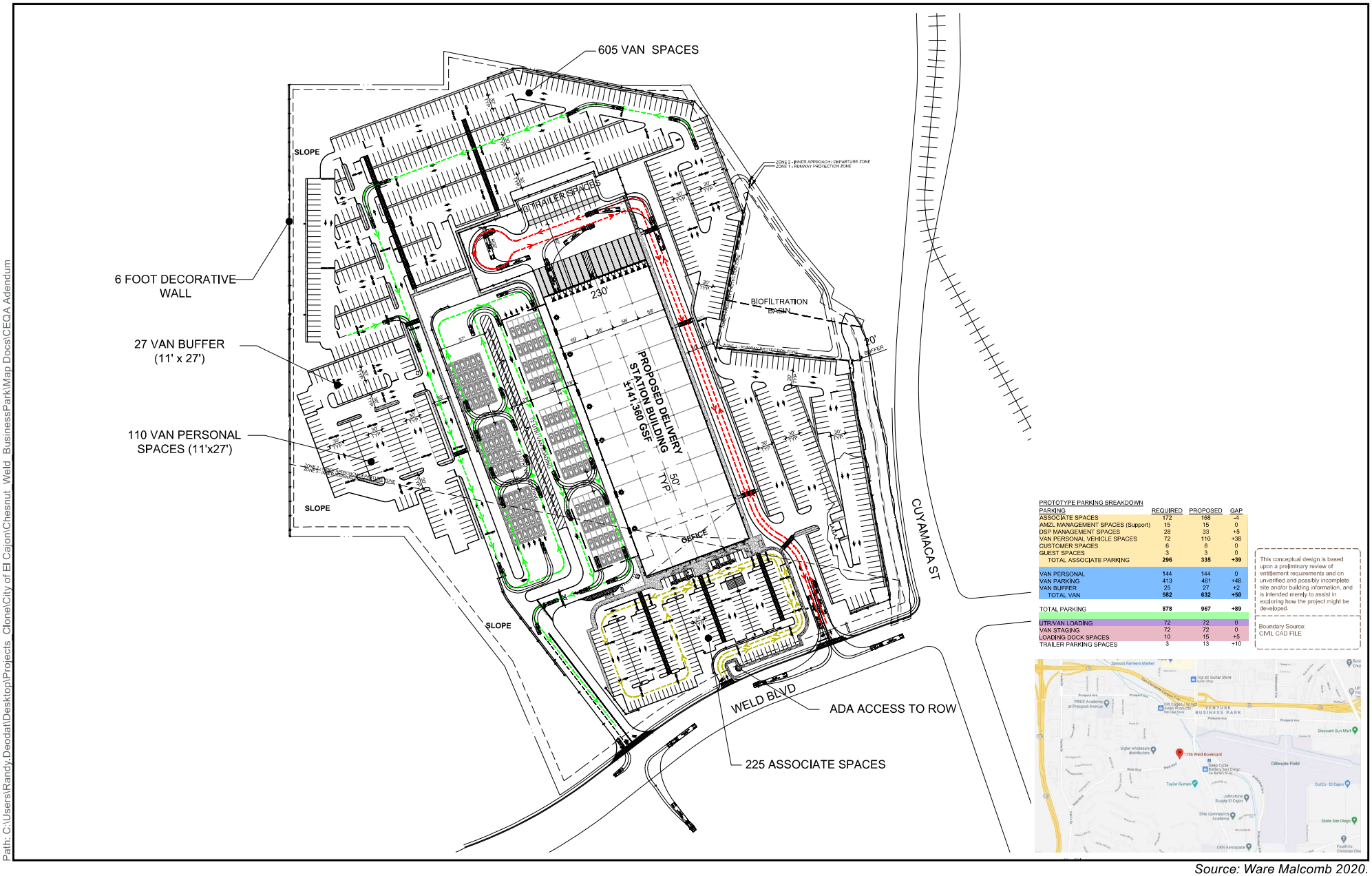
0 500 1,000

Feet

Figure 3

USGS Topographic Map

Weld Boulevard Distribution Center Project



PROTOTYPE PARKING BREAKDOWN

PARKING	REQUIRED	PROPOSED	GAP
ASSOCIATE SPACES	172	168	-4
AMZL MANAGEMENT SPACES (Support)	15	15	0
DSP MANAGEMENT SPACES	28	33	+5
VAN PERSONAL VEHICLE SPACES	72	110	+38
CUSTOMER SPACES	6	6	0
GUEST SPACES	3	3	0
TOTAL ASSOCIATE PARKING	**296**	**335**	**+39**
VAN PERSONAL	144	144	0
VAN PARKING	413	461	+48
VAN BUFFER	25	27	+2
TOTAL VAN	**582**	**632**	**+50**
TOTAL PARKING	**878**	**967**	**+89**
UTR/VAN LOADING	72	72	0
VAN STAGING	72	72	0
LOADING DOCK SPACES	10	15	+5
TRAILER PARKING SPACES	3	13	+10

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Boundary Source:
CIVIL CAD FILE

Source: Ware Malcomb 2020.

Harris & Associates

N

0 175 350
Feet

Figure 4

Proposed Site Plan

Weld Bouldevard Distribution Center Project

Attachment 1. Model Outputs

This page intentionally left blank.

Weld Distribution Center Project

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	125.00	1000sqft	2.87	125,000.00	0
General Office Building	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	750.00	1000sqft	17.22	750,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Weld Distribution Center Project - San Diego Air Basin, Annual

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Client indicated use of off highway truck for this phase.

Off-road Equipment - Off-hwy truck needed to move cement.

Off-road Equipment -

Grading - Acres from grading plan.

Trips and VMT - Coating overlaps with paving.

Vehicle Trips - Trips reflect average of peak and average season.

Fleet Mix - Trucks estimated conservatively at 3% of trips.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	370.00	70.00
tblConstructionPhase	NumDays	35.00	80.00
tblConstructionPhase	NumDays	20.00	100.00
tblConstructionPhase	PhaseEndDate	2/10/2023	5/20/2022
tblConstructionPhase	PhaseEndDate	12/16/2022	11/12/2021
tblConstructionPhase	PhaseEndDate	7/16/2021	8/6/2021
tblConstructionPhase	PhaseEndDate	1/13/2023	4/1/2022
tblConstructionPhase	PhaseStartDate	1/14/2023	4/2/2022
tblConstructionPhase	PhaseStartDate	7/17/2021	8/7/2021
tblConstructionPhase	PhaseStartDate	5/29/2021	4/19/2021
tblConstructionPhase	PhaseStartDate	12/17/2022	11/13/2021
tblFleetMix	HHD	0.02	0.03
tblFleetMix	HHD	0.02	0.03
tblFleetMix	HHD	0.02	0.03

tblFleetMix	LDA	0.60	0.59
tblFleetMix	LDA	0.60	0.59
tblFleetMix	LDA	0.60	0.59
tblGrading	AcresOfGrading	200.00	26.90
tblGrading	MaterialExported	0.00	20,000.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblTripsAndVMT	WorkerTripNumber	20.00	60.00
tblTripsAndVMT	WorkerTripNumber	373.00	60.00
tblTripsAndVMT	WorkerTripNumber	18.00	60.00
tblTripsAndVMT	WorkerTripNumber	75.00	0.00
tblVehicleTrips	CC_TL	7.30	11.70
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CW_TL	9.50	11.70
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	15.95
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	15.95
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	15.95

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3324	3.7652	2.5731	7.1000e-003	0.3564	0.1349	0.4912	0.1617	0.1248	0.2865	0.0000	647.5170	647.5170	0.1358	0.0000	650.9123
2022	1.9796	0.4889	0.6331	1.2600e-003	0.0156	0.0236	0.0392	4.1600e-003	0.0218	0.0260	0.0000	111.1403	111.1403	0.0309	0.0000	111.9127
Maximum	**1.9796**	**3.7652**	**2.5731**	**7.1000e-003**	**0.3564**	**0.1349**	**0.4912**	**0.1617**	**0.1248**	**0.2865**	**0.0000**	**647.5170**	**647.5170**	**0.1358**	**0.0000**	**650.9123**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3324	3.7652	2.5731	7.1000e-003	0.3564	0.1349	0.4912	0.1617	0.1248	0.2865	0.0000	647.5166	647.5166	0.1358	0.0000	650.9118
2022	1.9796	0.4889	0.6331	1.2600e-003	0.0156	0.0236	0.0392	4.1600e-003	0.0218	0.0260	0.0000	111.1402	111.1402	0.0309	0.0000	111.9126
Maximum	**1.9796**	**3.7652**	**2.5731**	**7.1000e-003**	**0.3564**	**0.1349**	**0.4912**	**0.1617**	**0.1248**	**0.2865**	**0.0000**	**647.5166**	**647.5166**	**0.1358**	**0.0000**	**650.9118**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-19-2021**	**7-18-2021**	1.9232	1.9232
2	**7-19-2021**	**10-18-2021**	1.4286	1.4286
3	**10-19-2021**	**1-18-2022**	0.7979	0.7979
4	**1-19-2022**	**4-18-2022**	1.1003	1.1003
5	**4-19-2022**	**7-18-2022**	1.2633	1.2633
		Highest	1.9232	1.9232

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7944	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170
Energy	2.9800e-003	0.0271	0.0227	1.6000e-004		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	339.0188	339.0188	0.0130	3.1200e-003	340.2736
Mobile	0.6969	3.6528	9.5330	0.0363	3.2027	0.0299	3.2326	0.8578	0.0279	0.8858	0.0000	3,358.4133	3,358.4133	0.1716	0.0000	3,362.7021
Waste						0.0000	0.0000		0.0000	0.0000	27.0607	0.0000	27.0607	1.5992	0.0000	67.0418
Water						0.0000	0.0000		0.0000	0.0000	10.1292	142.5884	152.7176	1.0461	0.0258	186.5445
Total	**1.4943**	**3.6800**	**9.5640**	**0.0365**	**3.2027**	**0.0320**	**3.2347**	**0.8578**	**0.0300**	**0.8879**	**37.1899**	**3,840.0364**	**3,877.2263**	**2.8300**	**0.0289**	**3,956.5790**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7944	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170
Energy	2.9800e-003	0.0271	0.0227	1.6000e-004		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	339.0188	339.0188	0.0130	3.1200e-003	340.2736
Mobile	0.6969	3.6528	9.5330	0.0363	3.2027	0.0299	3.2326	0.8578	0.0279	0.8858	0.0000	3,358.4133	3,358.4133	0.1716	0.0000	3,362.7021
Waste						0.0000	0.0000		0.0000	0.0000	27.0607	0.0000	27.0607	1.5992	0.0000	67.0418
Water						0.0000	0.0000		0.0000	0.0000	10.1292	142.5884	152.7176	1.0461	0.0258	186.5445
Total	**1.4943**	**3.6800**	**9.5640**	**0.0365**	**3.2027**	**0.0320**	**3.2347**	**0.8578**	**0.0300**	**0.8879**	**37.1899**	**3,840.0364**	**3,877.2263**	**2.8300**	**0.0289**	**3,956.5790**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/19/2021	8/6/2021	5	80	
2	Building Construction	Building Construction	8/7/2021	11/12/2021	5	70	
3	Paving	Paving	11/13/2021	4/1/2022	5	100	
4	Architectural Coating	Architectural Coating	4/2/2022	5/20/2022	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 26.896

Acres of Paving: 17.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 213,000; Non-Residential Outdoor: 71,000; Striped Parking Area: 45,000 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Off-Highway Trucks	1	6.00	402	0.38
Paving	Off-Highway Trucks	1	6.00	402	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	60.00	0.00	2,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	60.00	146.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	60.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2566	0.0000	0.2566	0.1342	0.0000	0.1342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1677	1.8560	1.2351	2.4800e-003		0.0794	0.0794		0.0731	0.0731	0.0000	217.9799	217.9799	0.0705	0.0000	219.7424
Total	**0.1677**	**1.8560**	**1.2351**	**2.4800e-003**	**0.2566**	**0.0794**	**0.3360**	**0.1342**	**0.0731**	**0.2072**	**0.0000**	**217.9799**	**217.9799**	**0.0705**	**0.0000**	**219.7424**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3900e-003	0.3265	0.0805	9.6000e-004	0.0214	9.9000e-004	0.0224	5.8700e-003	9.4000e-004	6.8200e-003	0.0000	95.2027	95.2027	8.5900e-003	0.0000	95.4175
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3400e-003	5.9500e-003	0.0600	1.9000e-004	0.0193	1.4000e-004	0.0194	5.1100e-003	1.3000e-004	5.2400e-003	0.0000	16.8125	16.8125	4.8000e-004	0.0000	16.8246
Total	**0.0177**	**0.3324**	**0.1405**	**1.1500e-003**	**0.0406**	**1.1300e-003**	**0.0418**	**0.0110**	**1.0700e-003**	**0.0121**	**0.0000**	**112.0152**	**112.0152**	**9.0700e-003**	**0.0000**	**112.2420**

3.2 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2566	0.0000	0.2566	0.1342	0.0000	0.1342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1677	1.8560	1.2351	2.4800e-003		0.0794	0.0794		0.0731	0.0731	0.0000	217.9797	217.9797	0.0705	0.0000	219.7421
Total	**0.1677**	**1.8560**	**1.2351**	**2.4800e-003**	**0.2566**	**0.0794**	**0.3360**	**0.1342**	**0.0731**	**0.2072**	**0.0000**	**217.9797**	**217.9797**	**0.0705**	**0.0000**	**219.7421**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3900e-003	0.3265	0.0805	9.6000e-004	0.0214	9.9000e-004	0.0224	5.8700e-003	9.4000e-004	6.8200e-003	0.0000	95.2027	95.2027	8.5900e-003	0.0000	95.4175
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3400e-003	5.9500e-003	0.0600	1.9000e-004	0.0193	1.4000e-004	0.0194	5.1100e-003	1.3000e-004	5.2400e-003	0.0000	16.8125	16.8125	4.8000e-004	0.0000	16.8246
Total	**0.0177**	**0.3324**	**0.1405**	**1.1500e-003**	**0.0406**	**1.1300e-003**	**0.0418**	**0.0110**	**1.0700e-003**	**0.0121**	**0.0000**	**112.0152**	**112.0152**	**9.0700e-003**	**0.0000**	**112.2420**

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.7483	0.6748	1.2900e-003		0.0386	0.0386		0.0362	0.0362	0.0000	111.5193	111.5193	0.0294	0.0000	112.2544
Total	**0.0824**	**0.7483**	**0.6748**	**1.2900e-003**		**0.0386**	**0.0386**		**0.0362**	**0.0362**	**0.0000**	**111.5193**	**111.5193**	**0.0294**	**0.0000**	**112.2544**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0158	0.5251	0.1400	1.3700e-003	0.0339	1.1100e-003	0.0350	9.7900e-003	1.0600e-003	0.0109	0.0000	133.5959	133.5959	9.9200e-003	0.0000	133.8437
Worker	7.3000e-003	5.2100e-003	0.0525	1.6000e-004	0.0168	1.2000e-004	0.0170	4.4700e-003	1.1000e-004	4.5800e-003	0.0000	14.7110	14.7110	4.2000e-004	0.0000	14.7215
Total	**0.0231**	**0.5304**	**0.1925**	**1.5300e-003**	**0.0508**	**1.2300e-003**	**0.0520**	**0.0143**	**1.1700e-003**	**0.0154**	**0.0000**	**148.3068**	**148.3068**	**0.0103**	**0.0000**	**148.5653**

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.7483	0.6748	1.2900e-003		0.0386	0.0386		0.0362	0.0362	0.0000	111.5192	111.5192	0.0294	0.0000	112.2543
Total	**0.0824**	**0.7483**	**0.6748**	**1.2900e-003**		**0.0386**	**0.0386**		**0.0362**	**0.0362**	**0.0000**	**111.5192**	**111.5192**	**0.0294**	**0.0000**	**112.2543**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0158	0.5251	0.1400	1.3700e-003	0.0339	1.1100e-003	0.0350	9.7900e-003	1.0600e-003	0.0109	0.0000	133.5959	133.5959	9.9200e-003	0.0000	133.8437
Worker	7.3000e-003	5.2100e-003	0.0525	1.6000e-004	0.0168	1.2000e-004	0.0170	4.4700e-003	1.1000e-004	4.5800e-003	0.0000	14.7110	14.7110	4.2000e-004	0.0000	14.7215
Total	**0.0231**	**0.5304**	**0.1925**	**1.5300e-003**	**0.0508**	**1.2300e-003**	**0.0520**	**0.0143**	**1.1700e-003**	**0.0154**	**0.0000**	**148.3068**	**148.3068**	**0.0103**	**0.0000**	**148.5653**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.2955	0.3040	5.7000e-004		0.0144	0.0144		0.0133	0.0133	0.0000	50.3403	50.3403	0.0163	0.0000	50.7474
Paving	7.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0379**	**0.2955**	**0.3040**	**5.7000e-004**		**0.0144**	**0.0144**		**0.0133**	**0.0133**	**0.0000**	**50.3403**	**50.3403**	**0.0163**	**0.0000**	**50.7474**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.6000e-003	0.0262	8.0000e-005	8.4200e-003	6.0000e-005	8.4800e-003	2.2400e-003	5.0000e-005	2.2900e-003	0.0000	7.3555	7.3555	2.1000e-004	0.0000	7.3608
Total	**3.6500e-003**	**2.6000e-003**	**0.0262**	**8.0000e-005**	**8.4200e-003**	**6.0000e-005**	**8.4800e-003**	**2.2400e-003**	**5.0000e-005**	**2.2900e-003**	**0.0000**	**7.3555**	**7.3555**	**2.1000e-004**	**0.0000**	**7.3608**

3.4 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.2955	0.3040	5.7000e-004		0.0144	0.0144		0.0133	0.0133	0.0000	50.3403	50.3403	0.0163	0.0000	50.7473
Paving	7.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0379**	**0.2955**	**0.3040**	**5.7000e-004**		**0.0144**	**0.0144**		**0.0133**	**0.0133**	**0.0000**	**50.3403**	**50.3403**	**0.0163**	**0.0000**	**50.7473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.6000e-003	0.0262	8.0000e-005	8.4200e-003	6.0000e-005	8.4800e-003	2.2400e-003	5.0000e-005	2.2900e-003	0.0000	7.3555	7.3555	2.1000e-004	0.0000	7.3608
Total	**3.6500e-003**	**2.6000e-003**	**0.0262**	**8.0000e-005**	**8.4200e-003**	**6.0000e-005**	**8.4800e-003**	**2.2400e-003**	**5.0000e-005**	**2.2900e-003**	**0.0000**	**7.3555**	**7.3555**	**2.1000e-004**	**0.0000**	**7.3608**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0488	0.4599	0.5561	1.0600e-003		0.0220	0.0220		0.0203	0.0203	0.0000	93.5127	93.5127	0.0302	0.0000	94.2688
Paving	0.0147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0635**	**0.4599**	**0.5561**	**1.0600e-003**		**0.0220**	**0.0220**		**0.0203**	**0.0203**	**0.0000**	**93.5127**	**93.5127**	**0.0302**	**0.0000**	**94.2688**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4100e-003	4.4100e-003	0.0452	1.5000e-004	0.0156	1.1000e-004	0.0158	4.1600e-003	1.0000e-004	4.2600e-003	0.0000	13.1594	13.1594	3.6000e-004	0.0000	13.1684
Total	**6.4100e-003**	**4.4100e-003**	**0.0452**	**1.5000e-004**	**0.0156**	**1.1000e-004**	**0.0158**	**4.1600e-003**	**1.0000e-004**	**4.2600e-003**	**0.0000**	**13.1594**	**13.1594**	**3.6000e-004**	**0.0000**	**13.1684**

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0488	0.4599	0.5561	1.0600e-003		0.0220	0.0220		0.0203	0.0203	0.0000	93.5126	93.5126	0.0302	0.0000	94.2687
Paving	0.0147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0635**	**0.4599**	**0.5561**	**1.0600e-003**		**0.0220**	**0.0220**		**0.0203**	**0.0203**	**0.0000**	**93.5126**	**93.5126**	**0.0302**	**0.0000**	**94.2687**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4100e-003	4.4100e-003	0.0452	1.5000e-004	0.0156	1.1000e-004	0.0158	4.1600e-003	1.0000e-004	4.2600e-003	0.0000	13.1594	13.1594	3.6000e-004	0.0000	13.1684
Total	**6.4100e-003**	**4.4100e-003**	**0.0452**	**1.5000e-004**	**0.0156**	**1.1000e-004**	**0.0158**	**4.1600e-003**	**1.0000e-004**	**4.2600e-003**	**0.0000**	**13.1594**	**13.1594**	**3.6000e-004**	**0.0000**	**13.1684**

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9061					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**1.9097**	**0.0247**	**0.0317**	**5.0000e-005**		**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9061					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**1.9097**	**0.0247**	**0.0317**	**5.0000e-005**		**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6969	3.6528	9.5330	0.0363	3.2027	0.0299	3.2326	0.8578	0.0279	0.8858	0.0000	3,358.4133	3,358.4133	0.1716	0.0000	3,362.7021
Unmitigated	0.6969	3.6528	9.5330	0.0363	3.2027	0.0299	3.2326	0.8578	0.0279	0.8858	0.0000	3,358.4133	3,358.4133	0.1716	0.0000	3,362.7021

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,993.75	1,993.75	1993.75	8,490,983	8,490,983
Total	1,993.75	1,993.75	1,993.75	8,490,983	8,490,983

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	11.70	11.70	11.70	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.592621	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.030000	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.592621	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.030000	0.001926	0.001932	0.006016	0.000753	0.001122
Unrefrigerated Warehouse-No Rail	0.592621	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.030000	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	309.5631	309.5631	0.0125	2.5800e-003	310.6428
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	309.5631	309.5631	0.0125	2.5800e-003	310.6428
NaturalGas Mitigated	2.9800e-003	0.0271	0.0227	1.6000e-004		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	29.4558	29.4558	5.6000e-004	5.4000e-004	29.6308
NaturalGas Unmitigated	2.9800e-003	0.0271	0.0227	1.6000e-004		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	29.4558	29.4558	5.6000e-004	5.4000e-004	29.6308

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	343230	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3161	18.3161	3.5000e-004	3.4000e-004	18.4249
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	208750	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	11.1397	11.1397	2.1000e-004	2.0000e-004	11.2059
Total		**2.9800e-003**	**0.0271**	**0.0227**	**1.6000e-004**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**	**0.0000**	**29.4558**	**29.4558**	**5.6000e-004**	**5.4000e-004**	**29.6308**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	343230	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3161	18.3161	3.5000e-004	3.4000e-004	18.4249
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	208750	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	11.1397	11.1397	2.1000e-004	2.0000e-004	11.2059
Total		**2.9800e-003**	**0.0271**	**0.0227**	**1.6000e-004**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**	**0.0000**	**29.4558**	**29.4558**	**5.6000e-004**	**5.4000e-004**	**29.6308**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	228480	74.6693	3.0100e-003	6.2000e-004	74.9297
Parking Lot	262500	85.7873	3.4500e-003	7.1000e-004	86.0865
Unrefrigerated Warehouse-No Rail	456250	149.1065	6.0000e-003	1.2400e-003	149.6266
Total		**309.5631**	**0.0125**	**2.5700e-003**	**310.6428**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	228480	74.6693	3.0100e-003	6.2000e-004	74.9297
Parking Lot	262500	85.7873	3.4500e-003	7.1000e-004	86.0865
Unrefrigerated Warehouse-No Rail	456250	149.1065	6.0000e-003	1.2400e-003	149.6266
Total		**309.5631**	**0.0125**	**2.5700e-003**	**310.6428**

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	tons/yr										MT/yr					
Mitigated	0.7944	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170
Unmitigated	0.7944	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170
Total	**0.7944**	**7.0000e-005**	**8.2100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0159**	**0.0159**	**4.0000e-005**	**0.0000**	**0.0170**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0159	0.0159	4.0000e-005	0.0000	0.0170
Total	**0.7944**	**7.0000e-005**	**8.2100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0159**	**0.0159**	**4.0000e-005**	**0.0000**	**0.0170**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	152.7176	1.0461	0.0258	186.5445
Unmitigated	152.7176	1.0461	0.0258	186.5445

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.02147 / 1.85187	20.5399	0.0992	2.4900e-003	23.7624
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	28.9063 / 0	132.1776	0.9469	0.0233	162.7821
Total		**152.7176**	**1.0461**	**0.0258**	**186.5445**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.02147 / 1.85187	20.5399	0.0992	2.4900e-003	23.7624
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	28.9063 / 0	132.1776	0.9469	0.0233	162.7821
Total		**152.7176**	**1.0461**	**0.0258**	**186.5445**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.0607	1.5992	0.0000	67.0418
Unmitigated	27.0607	1.5992	0.0000	67.0418

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	15.81	3.2093	0.1897	0.0000	7.9509
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	117.5	23.8514	1.4096	0.0000	59.0909
Total		**27.0607**	**1.5992**	**0.0000**	**67.0418**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	15.81	3.2093	0.1897	0.0000	7.9509
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	117.5	23.8514	1.4096	0.0000	59.0909
Total		**27.0607**	**1.5992**	**0.0000**	**67.0418**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

This page intentionally left blank.