Appendix A

Calculation of GHGs from Vehicles

GHG Emissions from Vehicles

This Appendix presents the methodology utilized to calculate GHG emission factors for and GHG emissions from vehicles.

Emission Factors Calculation

The GHG emission factors were calculated based on the emission factors from EMFAC2014 within the CalEEMod Model. For the purpose of this analysis, an emission factor for the fleet was calculated based on the CalEEMod Model factors as described below:

The CalEEMod Model's unmitigated defaults indicate that the total VMT for the Project is 67,656,320 miles per year. Based on the EMFAC2014 emission factors utilized by the CalEEMod Model, the Project's total annual CO_2 emissions were 21,401.9282 MT/year, and total annual CH_4 emissions were 1.0467 MT/year. To obtain GHG emission factors for the San Diego County fleet, these emissions were divided by the total VMT derived from the unmitigated defaults as shown below:

CO_2 emission factor, tons/VMT: 21,401.9282 MT/yr / 67,656,320 miles/yr
= 3.16×10^{-4} MT/VMT

CH_4 emission factors, tons/VMT: 1.0467 MT/yr / 67,656,320 miles/yr
= 1.55×10^{-8} MT/VMT

Total Project VMT and Related GHG Emissions

As documented in the Chen Ryan analysis (included as Attachment A), SANDAG's traffic model estimates that the Project's VMT is 212,097 miles/day for weekday miles. Based on the CalEEMod Model, weekend miles are 3.6% lower than weekday miles. Therefore, the Project's total VMT was calculated as follows:

Weekday miles: 212,097 VMT x 261 days/year
= 55,357,317 miles/year

Weekend miles: (1-.036) x 212,097 VMT x 104 days/year
= 21,263,997 miles/year

Total annual VMT: 76,621,314

The Project's traffic-related GHG emissions, therefore, are calculated as follows:

76,621,314 miles/yr x 3.16×10^{-4} MT CO_2/VMT = 24,212 MT CO_2/yr

76,621,314 miles/yr x 1.55×10^{-8} MT CH_4/VMT = 1.1876 MT CH_4/yr

TDM strategies that would be implemented per recommended mitigation parameters would reduce VMT by approximately 4.969% as shown below:

24,212 MT CO_2/yr x (1-.04969) = 23,010 MT CO_2/yr

1.1876 MT CH_4/yr x (1-.04969) = 1.1286 MT CH_4/yr

CHEN RYAN

TO: Baldwin & Sons, Inc.
Otay Village (San Diego) ASLI V, L.L.L.P

FROM: Stephen Cook, PE; Chen Ryan Associates
Phuong Nguyen, PE; Chen Ryan Associates

DATE: January 14, 2019

RE: **Transportation Demand Management Program Evaluation – Otay Ranch Resort Village Alternative H**

This memorandum documents the Vehicle Miles Traveled (VMT) reduction associated with the Transportation Demand Management (TDM) program for the proposed Otay Ranch Resort Village – Alternative H development (Alternative H).

This memo is organized as follows:

1. **Project Description** – Provides a brief description of the land uses proposed as part of the Otay Ranch Resort Village - Alternative H Project.
2. **Alternative H Generated VMT without TDM Program** – Calculates the total VMT associated with the Alternative H using the Year 2035 Series 13 Transportation Forecast model.
3. **Transportation Demand Management (TDM)**
   3.1 **Proposed TDM Program** – Outlines the Alternative H's TDM Program.
   3.2 **TDM Program Evaluation** – Evaluates the VMT reduction strategies associated with the Alternative H, and quantifies the anticipated VMT reductions.
4. **Alternative H VMT with TDM Reductions** – Provides an estimation of the Alternative H VMT with the implementation of the TDM program.

1. Project Description

The proposed Otay Ranch Resort Village Specific Plan ("Otay Ranch Resort Village / Village 13") is located at the northeast corner of Lower Otay Lake in unincorporated San Diego County. The project study area is bordered by State Route 94 to the east, the Jamul Community to the north, Otay Lake to the south, and the City of Chula Vista to the west.

Previously, the Otay Ranch Resort Village proposed to construct 1,881 single-family detached homes, 57 attached homes, up to 20,000 square feet of mixed-use commercial, 28.6 acres of public parks, 2.1 acres of public safety-related land uses, a 10-acre elementary school, and a 200-room resort, including up to 20,000 square feet of ancillary uses such as meeting rooms, a conference center, offices, shops, and restaurants. Most recently, the project proposed to revise the land use plan slightly in order to fit into a more compact project footprint and this alternative is referred to as "Alternative H" in this memorandum. Under Alternative H, the 1,869-acre project site would be developed in accordance with the approved

Preserve and development boundaries shown in the MSCP County Subarea Plan. Development of the project site would consist of 1,881 single-family homes and 57 multi-family homes for a total of 1,938 homes. Resort uses would encompass 16.6 acres in the southeast portion of the project site and includes up to 200 rooms and 20,000 square feet of ancillary retail/commercial uses. A total of 25.1 gross acres of parkland would be provided, which includes a central park in the village core and five neighborhood parks within convenient walking distance from all homes. A 10.1-acre elementary school is proposed adjacent to the central park. While no public safety site was included within Village 13 in the Otay SRP, which located a fire station in Village 15, as with the Proposed Project the Alternative H development plan would include a 2.3-acre Public Safety Site. This alternative also proposes a community homeowner facility (6.1 acres), located in close proximity to the village core, which includes meeting space and fitness center, recreation courts, a swimming pool and picnic areas. Otay Lakes Road would remain in its existing location and would undergo improvements including a widening from two to four lanes between the City/County Boundary and Driveway #2. Alternative H would convey 1,107 acres to the Otay Ranch RMP Preserve and designate 69.3 acres of additional habitat land as Conservation Open Space. Additionally, 76.5 acres would be used for manufactured open space, which consists of homeowner association maintained manufactured slopes, water basin lots, and fuel management zones. Other land uses include 32.3 acres for internal circulation. **Figure 1** displays the Alternative H Alternative H site plan.

As described in the Introduction section, the proposed land uses are largely identical between Alternative H and the previously prepared traffic impact study (dated March 2015) with three minor variations: a 3.5 acres reduction in public parks, a 0.2 acre increase in public safety-related uses, and a 6.1 acres community homeowner association facility (HOA facility). It is important to note that while the acreage for public safety-related uses slightly increased, the actual proposed uses in terms of building size or number of staff on-site would remain the same as previously analyzed. The HOA facility will be internally serving and only open to home owners within the development, thus the HOA facility would not generate any external trips. Therefore, it can be concluded that the total project trip generation for Alternative H will be equal or less than what was studied in the previous traffic impact study. Please refer to the traffic impact study for the total daily trip generation.

2. Alternative H Generated VMT without TDM Program

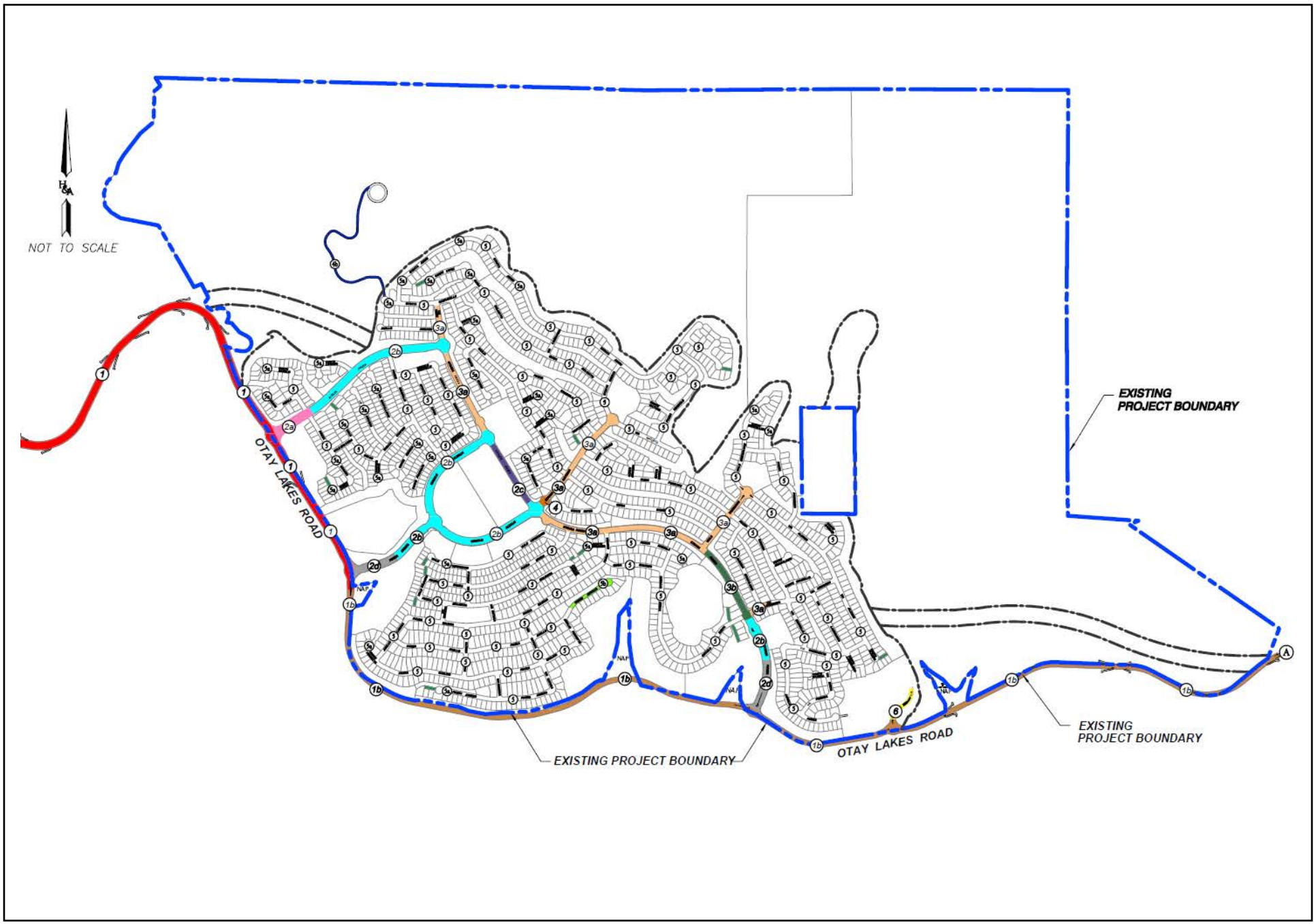
The Alternative H total VMT (without TDM Program) was obtained using the Year 2035 SANDAG Series 13 Transportation Forecast, and derived from the select zone assignment conducted for the Project traffic analysis zones (TAZ), updated to reflect the Alternative H land uses. The VMT calculation for the Alternative H was conducted using the following steps:

- *Select zone assignment* – Select zone assignments are a tool within the transportation forecast model that can track the paths of the vehicle trips produced by one or multiple TAZs, on a daily basis. Select zone assignments allow users to determine the number of trips, generated within a specific group of TAZ(s), that will use a specific roadway segment over a daily period. The Alternative H VMT calculation used a select zone assignment based on the TAZs in the SANDAG Series 13 model which house the Alternative H land uses.

- *Calculate the VMT per roadway segment* – The Alternative H VMT for each roadway segment within the San Diego Region was calculated by multiplying the number of average daily vehicles trips generated by the Alternative H (as determined by the select zone assignment) by the length (in miles) of the specific roadway segments that they were utilizing.

- *Total VMT associated with the Alternative H* – The total project generated VMT was determined by summing the Alternative H segment VMTs along all of the roadways within the San Diego region.

The results of the select zone assignment are provided in **Attachment 1.** Based upon the results of the select zone assignment, the Alternative H would generate approximately 212,097 VMT per day.



Otay Ranch Resort Village - Alternative H Transportation Demand Management Program Evaluation

CHEN RYAN

Figure 1
Project Site Plan

3. Transportation Demand Management (TDM)

3.1 Proposed TDM Program

With the goal reducing vehicle trips in favor of alternative modes of transportation, the project applicant proposes to implement the TDM measures and strategies listed below. The TDM program will facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means and incentives for ridesharing and carpooling opportunities. The following measures are included in the TDM program:

1. A comprehensive trails network designed to provide safe bicycle and pedestrian access between the various Alternative H phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Alternative H site, including the multi-purpose trail along Otay Lakes Road.

2. The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Alternative H site.

3. Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Alternative H.

4. Promotion of available websites providing transportation options for residents and businesses.

5. Creation and distribution of a "new resident" information packet addressing alternative modes of transportation.

6. Provision of a "School Pool" program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area.

7. Implementation of a "Walking School Bus" program, whereby neighborhood students are accompanied by a "chaperone" (e.g., parental supervision) to safely walk to and from the on-site elementary school. Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.

8. Implementation of traffic calming features throughout the project site, as well as along Otay Lakes Road. The measures will be designed to reduce motor vehicle speeds and encourage walking and biking within the project site. Traffic calming features may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.

In addition to the TDM measures stated above, which were utilized to determine the total VMT reduction associated with the Alternative H TDM Program, a series of smaller TDM measures (outlined below) will also be incorporated into the program. However these TDM measures were not utilized to quantify VMT reductions:

1. The HOA will coordinate with the on-site elementary school located in the Village Core Area to provide a Walking School Bus Program. A walking school bus program is an adult-supervised walk-to-school program where one or more adults lead a group of students to-and-from the school.

2. The Resort operator will provide a bike-sharing program at the Resort for guests to use throughout the duration of their stay in order to link the resort to the rest of Alternative H.

3.2 TDM Program Evaluation

The methods and strategies contained in the CAPCOA Report were used to quantify the reductions in Alternative H generated VMT. The CAPCOA Report provides a series of strategies to reduce Greenhouse Gas (GHG) emissions at both the project and regional levels. The GHG reduction strategies outlined in the CAPCOA Report are divided into energy, transportation, water resources, landscaping, solid waste, vegetation construction, and other miscellaneous categories. The transportation strategies contained in the CAPCOA Report primarily target VMT reductions to reduce GHG emissions.
Chapter 7 of the CAPCOA report provides a series of fact sheets that outline the relevant literature used to develop each strategy, how and where the strategy is applicable, the method to apply the strategy, and sample calculations. The CAPCOA Report provides caps limiting the total VMT reductions that are allowed for each individual strategy, or category of strategies, or as a total project site. To quantify the potential reduction in project generated VMT, the VMT based reduction strategies were applied to the relevant features contained in the Alternative H's design and TDM Program.

Chen Ryan Associates correlated the proposed TDM measures, outlined in Section 3, with the appropriate mitigation measures contained in the *CAPCOA Report*. The CAPCOA fact sheets for each applicable TDM measure are provided in **Attachment 2**.

Table 1 provides a summary of the Project's TDM Program strategies, the corresponding CAPCOA transportation strategies, analysis of the VMT reduction associated with each, and the resulting VMT reduction.

To ensure the TDM Program strategies outlined below are implemented, a Transportation Coordinator (such as board member of the home owner's association, a consultant, or a property management company) shall be established to monitor the TDM Program. Coordinators are responsible for developing, marketing, implementing, and evaluating TDM Programs; dedicated personnel makes the TDM Program more robust, consistent and reliable. Additionally, residents and employees would have a designated point of contact for questions regarding the various TDM measures, which would allow them to easily stay informed of various TDM functions and eligibility. The Transportation Coordinator's duties would include, but not be limited to, the following:

- Provide information and resources regarding transit options and SANDAG's iCommute program on a quarterly basis.
- Act as source of information regarding the TDM Program, including compliance with regulatory requirements and new potential TDM benefits.
- Coordinate TDM Program monitoring (administer surveys and coordinate data collection).

To ensure that the Project is implementing the TDM Program consistent with the analysis presented in this memorandum, monitoring would start once the community is 85% occupied and occur every 3-5 years. The Transportation Coordinator would submit a monitoring report to the County of San Diego to document the implementation of the TDM Program. The details of the monitoring/reporting would be determined in collaboration with the County, but potentially would include administering and summarizing community surveys and documenting TDM measures in operation/level of participation. Table 2 sets forth the applicable performance metrics and targets for each strategy identified for implementation in this memorandum. The purpose of the performance metrics is to ensure implementation of the VMT reduction strategies are consistent with the analysis presented in this evaluation.

Table 1 – Resort Village TDM Evaluation and Corresponding VMT reductions

TDM Program Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
VMT Reductions Associated with the Resort Village TDM Program			
TDM #1: Provide a comprehensive trails network designed to provide safe bicycle (and pedestrian) access between the various Alternative H phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Alternative H site. TDM #2: The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Alternative H site.	SDT-9: Dedicate Land for Bike Trails - Larger projects may be required to provide for, contribute to, or dedicate land for the provision of off-site bicycle trails linking the project to designated bicycle commuting routes in accordance with an adopted citywide or countywide bikeway plan. Refer to Improve Design of Development (LUT-9) strategy for ranges of effectiveness in this category. The benefits of Land Dedication for Bike Trails have not been quantified and should be grouped with the Improve Design of Development strategy to strengthen street network characteristics and improve connectivity to off-site bicycle networks.	Note: No specific methodology is provided in the CAPCOA Report for this strategy. The Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S., NITC-RR-583, June 2014 found that when protected bike facilities are implemented 11% of the riders on those facilities would have made the trip using another mode (10%) or would not have made the trip at all (1%). Based on WHERE WE RIDE Analysis of bicycle commuting in American cities, the San Diego Region has a bicycle commute mode share of 0.82%. http://bikeleague.org/sites/default/files/ACS_report_2014_forweb_edit.pdf Calculation: If the 11% growth is new ridership with protected bike facilities is applied to the 0.82% bike mode share, we would see the bicycle mode share increase to 0.92%, resulting in a 0.1% decrease in project vehicular trips. This 0.1% decrease can also be applied to the project generated VMT. 0.82% bike mode share + (.82% bike mode share x 11% increase) = 0.92%, an increase of 0.1% in bike mode share.	0.1%
	LUT-8: Locate Project Near Bike Path/Bike Lane - A Project that is designed around an existing or planned bicycle facility encourages alternative mode use. The project will be located adjacent to a within 1/2 mile of an existing Class I path or Class II bike lane. The project design should include a comparable network that connects the project uses to the existing offsite facilities. This measure is most effective when applied in combination of multiple design elements that encourage this use. Refer to Increase Destination Accessibility (LUT-4) strategy. The benefits of Proximity to Bike Path/Bike Lane are small as a standalone strategy. The strategy should be grouped with the Increase Destination Accessibility strategy to increase the opportunities for multi-modal travel.	As per page 181 of the CAPCOA Report: As a rule of thumb, *the Center for Clean Air Policy (CCAP) Guidebook* attributes a 1% to 5% reduction associated with comprehensive bicycle programs. Based on the CCAP guidebook, the TIAX report allots 2.5% reduction for all bicycle-related measures and a 1/4 of that for this measure alone. (This information is based on a TIAX review for (SMAQMD). Calculation: Therefore, the CAPCOA Report recommend a 0.625% reduction for this measure (2.5% reduction for bike improvements X 0.25 for the measure) = 0.625%	0.625%

Table 1 – Resort Village TDM Evaluation and Corresponding VMT reductions

TDM Program Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
TDM #1 & TDM #2 (Continue)	SDT-1: Provide Pedestrian Network Improvements - Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The project will provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The project will minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation will be eliminated.	The reduction factor for this measure was derived from the Mitigation Method table provided on page 187 of the CAPCOA Report. A 2% factor was selected since the Alternative H will be located in a suburban context and will provide a multi-use path along Otay Lakes Road, connecting the Project to the City of Chula Vista.	2%
TDM #3: Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Alternative H.	TRT-3: Provide Ride-Sharing Programs - Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project will include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. The project will promote ride-sharing programs through a multi-faceted approach such as: • Designating a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles Providing a web site or message board for coordinating rides	As per page 228 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % VMT Reduction = Commute * Employee Commute = % reduction in commute VMT • 5% (low density suburb) • 10% (suburban center) • 15% (urban) annual reduction in commute VMT Employee = % employees eligible Calculation: 5% Low density suburb * 100% of working residents * 15% Home-Work Trips (Based on SANDAG Trip Generation for Smart Growth, SANDAG Smart Growth Trip Generation Spreadsheet Tool, and associated NCHRP researches - https://www.sandag.org/index.asp?projectid=378&fuseaction=projects.detail) = 0.75% The VMT reduction above applied to the residential commute trips only. For a conservative analysis, this reduction was not applied to the mixed used commercial and hotel trips.	0.75%
TDM #4: Promotion of available websites providing transportation options for residents and businesses. TDM #5: Creation and distribution of a "new resident" information packet addressing alternative modes of transportation.	TRT-7: Implement Commute Trip Reduction Marketing - The project will implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include: New employee orientation of trip reduction and alternative mode options, Event promotions, or Publications.	As per page 241 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % Commute VMT Reduction = 4% * Employees Eligible * 1 Calculation: % Commute VMT Reduction = 4% * 100% of working residents * 15% Home-Work Trips (Based on SANDAG Trip Generation for Smart Growth, SANDAG Smart Growth Trip Generation	0.6%

Table 1 – Resort Village TDM Evaluation and Corresponding VMT reductions

TDM Program Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
	CTR marketing is often part of a CTR program, voluntary or mandatory. CTR marketing is discussed separately here to emphasis the importance of not only providing employees with the options and monetary incentives to use alternative forms of transportation, but to clearly and deliberately promote and educate employees of the various options. This will greatly improve the impact of the implemented trip reduction strategies.	Spreadsheet Tool, and associated NCHRP researches - https://www.sandag.org/index.asp?projectid=378&fuseaction=projects.detail) = 0.6% The VMT reduction above applied to the residential commute trips only. For a conservative analysis, this reduction was not applied to the mixed used commercial and hotel trips.	
TDM #6: Provision of a "School Pool" program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area. TDM #7: Implementation of a "Walking School Bus" program, whereby neighborhood students are accompanied by a "chaperone" (e.g., parental supervision) to safely walk to and from the on-site elementary school. Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.	TRT-10: Implement a School Pool Program - This project will create a ridesharing program for school children. Most school districts provide bussing services to public schools only. School Pool helps match parents to transport students to private schools, or to schools where students cannot walk or bike but do not meet the requirements for bussing.	As per page 250 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % VMT Reduction = Families * 45% Families: 16% (moderate implementation), 35% (aggressive implementation). Calculation: 16% (moderate implementation) *45% * 3.3% home to school trips (based on outputs from the SANDAG Regional Model – a copy of the output is provided in Attachment 1) = 0.24%	0.24%
TDM #8: Implement traffic calming features throughout the project sites as well as along Otay Lakes Road to reduce motor vehicles speed and encourage walking and biking. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.	SDT-2: Provide Traffic Calming Measures - Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways will be designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.	The reduction factor for this measure was derived from the Mitigation Method table provided on page 191 of the CAPCOA Report. A 0.750% factor was developed based on an interpolation of the data included in the table. The Alternative H will control 3 of its 4-project driveways along Otay Lakes Road via roundabouts (75.0%).	0.750%

Source: CAPCOA 2010, Chen Ryan Associates; November 2018

Table 2 – Resort Village TDM Program Performance Metrics, Target, and Monitoring

TDM Program Strategies	Metric/Performance Measure	Target	Collection Method	Collection Frequency	When Target Should be Met
TDM #1: Provide a comprehensive trails network designed to provide safe bicycle (and pedestrian) access between the various Alternative H phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Alternative H site.	Pedestrian and bike network build-out that provides internal pedestrian and bike facilities that connect land uses within the project site as well as construction of the multi-purpose trail along Otay Lakes Road, connecting Alternative H to the regional network.	Full build-out of the planned pedestrian and bike trails network proposed within Alternative H	Field Verification	One time	After full build-out of Alternative H
TDM #2: The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Alternative H site.	Provide bicycle racks along major travel corridors, adjacent to the commercial core, public parks, and open spaces within the Alternative H. The total number of bicycle parking spaces should be at least 5% of the total vehicle parking capacity, with a minimum of one two-bike capacity rack (per the City of Chula Vista Bikeway Master plan provision 5.106.4.1)	Bicycle racks along main travel corridor within 100 feet of visitor entrance of each commercial building, public parks, and open spaces. Total number of bicycle parking spaces and types of bicycle parking spaces should be in conformance with City of Chula Vista Bikeway Master Plan.	Field Verification	One time	After full build-out of Alternative H
TDM #3: Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Alternative H.	Provide information regarding transit options and promote information regarding SANDAG's iCommute program on a quarterly basis in the HOA newsletters.	Materials created and maintained.	To be included in the Transportation Coordinator Annual Report & Resident Surveys	Annually	After full build-out of Alternative H
TDM #4: Promotion of available websites providing transportation options for residents and businesses.	Provide information regarding transit options and promote information regarding SANDAG's iCommute program on a quarterly basis in the HOA newsletters and employee newsletter.	Materials created and maintained.	To be included in the Transportation Coordinator Annual Report	Annually	After full build-out of Alternative H

Table 2 – Resort Village TDM Program Performance Metrics, Target, and Monitoring

TDM Program Strategies	Metric/Performance Measure	Target	Collection Method	Collection Frequency	When Target Should be Met
TDM #5: Creation and distribution of a "new resident" information packet addressing alternative modes of transportation.	Provide information regarding transit options and promote information regarding SANDAG's iCommute program on a quarterly basis in the HOA newsletters.	Materials created and maintained.	To be included in the Transportation Coordinator Annual Report	Annually	After full build-out of Alternative H
TDM #6: Provision of a "School Pool" program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area. TDM #7: Implementation of a "Walking School Bus" program, whereby neighborhood students are accompanied by a "chaperone" (e.g., parental supervision) to safely walk to and from the on-site elementary school. Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.	Program implemented and utilized.	Program implemented and 16% of students traveling to off-site schools utilizing program.	To be included in the Transportation Coordinator Annual Report & Resident Surveys	Annually	After full build-out of Alternative H
TDM #8: Implement traffic calming features throughout the project sites as well as along Otay Lakes Road to reduce motor vehicles speed and encourage walking and biking. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.	Presence of traffic calming features.	At least 25% of roadways and 75% of intersections have traffic calming features.	Field Verification	One time	After full build-out of Alternative H

The CAPCOA Report notes that when determining the overall VMT reduction associated with a project, the VMT reduction for each individual strategy should be dampened, that is adjusted to reflect the fact that some of the strategies may be redundant or applicable to the same populations. The CAPCOA report provides the following dampening formula:

Overall % VMT Reduction = 1-(1-First Strategy)*(1-Second Strategy)*(1-Third Strategy)…

Based on the VMT reduction results provided in Table 1, the Alternative H would have the following overall VMT reduction:

1-(1-0.00625)*(1-0.02)*(1-0.0075)*(1-0.001)*(1-0.0075) *(1-0.006) *(1-0.0024)
LUT-8 SDT-1 SDT-2 SDT-9 TRT-3 TRT-7 TRT-10

Overall VMT Reduction = 4.97%

Based on the VMT reduction results, the TDM Program for the Resort Village – Alternative H would have 4.97% VMT reduction.

4 Alternative H VMT with TDM Reductions

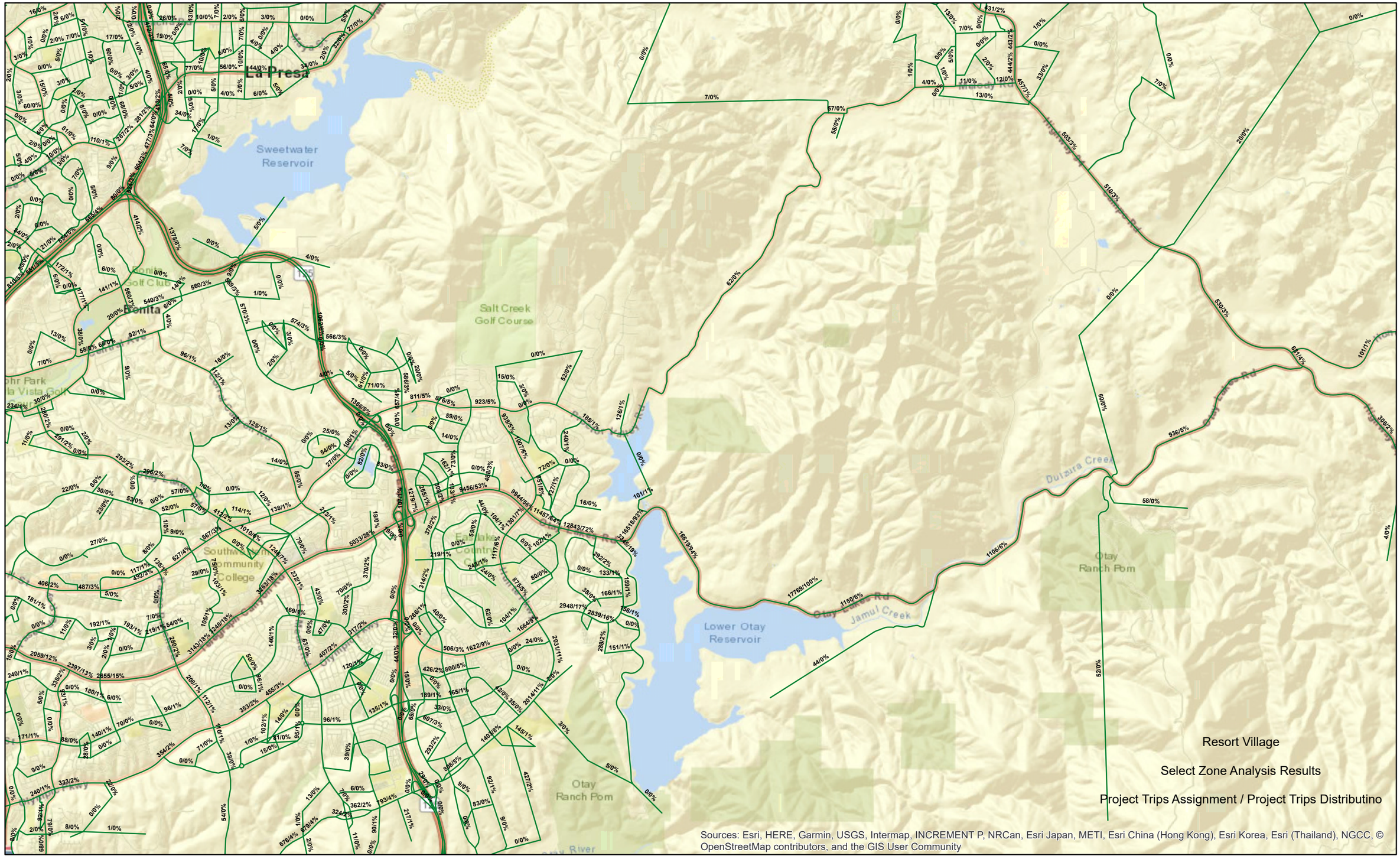
To derive the VMT generated by the Alternative H, the VMT reductions calculated in Table 1 and then dampened (i.e., 4.97% for Resort Village – Alternative H) were applied to the VMT outputs from the SANDAG Model provided in Section 2, Alternative H VMT – Without TDM Program. The calculations below show the Alternative H generated VMT after the reductions associated with the TDM Program are applied:

- Resort Village Raw VMT = 212,097 VMT
- Resort Village RAW VMT without Commercial VMT and Resort associated VMT: 162,179 (based on trips generation ratio of Commercial and Resort daily trips vs. total trips generated). Assuming a conservative analysis, where TDM measures are only applied to non-commercial and non-resort trips.
- Resort Village VMT Reduction = 162,179 * 4.97% = 8,056

Total project VMT = 212,097 – 8,056 = 204,041

ATTACHMENT 1

Select Zone Results & Home-School trips calculation



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

SUMMARY OF TRIPS BY							
	HOME	HOME	HOME	HOME	NON	SERVE	
MODE	WORK	COLL	SCHL	OTHER	HOME	PASS	TOTAL
Off-Peak Period							
Total Auto	752305	139377	283331	3703203	5926573	771992	11576780
>Drive Alone	659969	102206	71674	1916961	3367673	229203	6347687
>>Non-Toll	653820	102009	71674	1915561	3366866	229203	6339132
>>Toll	6149	197	0	1401	807	1	8555
>Carpool-2 Person	73826	31292	75086	1179550	1525046	276455	3161255
>>Non-Toll/Non-HOV	65062	30239	75038	1157817	1507530	272644	3108330
>>Non-Toll/HOV	7978	1028	43	20895	17389	3810	51143
>>Toll/HOV	786	25	0	839	122	1	1773
>Carpool-3+ Person	18510	5879	136575	606690	1033858	266334	2067847
>>Non-Toll/Non-HOV	16395	5656	136504	595068	1021832	262706	2038160
>>Non-Toll/HOV	1947	217	71	11132	11937	3627	28931
>>Toll/HOV	168	6	0	490	90	1	755
Total Transit	41486	8948	4612	55449	16675	0	127171
>Commuter Rail	287	86	19	130	12	0	534
>Light Rail	18521	3809	650	18797	5885	0	47662
>BRT	0	0	0	0	0	0	0
>Express Bus	2414	267	36	1104	275	0	4096
>Local Bus	20264	4786	3907	35419	10503	0	74879
>Walk	35428	8363	4496	51863	16675	0	116825
>Drive	4567	316	13	2339	0	0	7235
>Driven	1491	269	103	1248	0	0	3110
School Bus	0	0	54525	3813	5763	0	64100
Walk	15692	1247	90205	126780	70710	0	304634
Bicycle	9187	2196	5471	16585	3128	0	36567
Total	818671	151768	438143	3905830	6022849	771992	12109253
Peak Period							
Total Auto	993039	55493	257732	1003295	1720841	851511	4881912
>Drive Alone	870298	40736	65206	519042	975746	252318	2723346
>>Non-Toll	848659	40350	65206	517990	974551	252317	2699073
>>Toll	21639	386	0	1052	1195	1	24273
>Carpool-2 Person	98227	12419	68281	319798	443908	305175	1247808
>>Non-Toll/Non-HOV	82385	11924	68206	312473	431205	298956	1205149
>>Non-Toll/HOV	14303	486	71	7047	12624	6217	40747
>>Toll/HOV	1539	9	0	279	78	2	1907
>Carpool-3+ Person	24515	2338	124249	164455	301189	294018	910763
>>Non-Toll/Non-HOV	20724	2231	124133	160516	292425	288113	888143
>>Non-Toll/HOV	3462	104	115	3775	8706	5904	22067
>>Toll/HOV	328	2	0	163	57	2	553
Total Transit	63274	3909	4518	16232	4619	0	92552
>Commuter Rail	2987	148	144	240	150	0	3670
>Light Rail	32149	1878	719	5977	1859	0	42583
>BRT	0	0	0	0	0	0	0
>Express Bus	5476	113	64	399	150	0	6203
>Local Bus	22662	1770	3591	9615	2460	0	40097
>Walk	51821	3643	4391	15060	4619	0	79534
>Drive	9776	165	18	871	0	0	10831
>Driven	1677	101	109	300	0	0	2188
School Bus	0	0	49766	957	2338	0	53061
Walk	16156	211	82778	34169	11766	0	145080
Bicycle	10534	893	4906	4622	726	0	21680
Total	1083004	60506	399700	1059275	1740291	851511	5194286

SUMMARY OF TRIPS BY							
	HOME	HOME	HOME	HOME	NON	SERVE	
MODE	WORK	COLL	SCHL	OTHER	HOME	PASS	TOTAL
Daily Summary							
Total Auto	1745344	194870	**541063**	4706498	7647414	1623503	**16458692**
>Drive Alone	1530267	142942	136881	2436003	4343418	481521	9071033
>>Non-Toll	1502479	142359	136881	2433550	4341417	481519	9038205
>>Toll	27788	583	0	2453	2002	2	32828
>Carpool-2 Person	172053	43712	143367	1499349	1968953	581630	4409063
>>Non-Toll/Non-HOV	147447	42163	143245	1470290	1938735	571600	4313480
>>Non-Toll/HOV	22281	1514	115	27941	30013	10027	91891
>>Toll/HOV	2324	34	0	1118	200	3	3680
>Carpool-3+ Person	43025	8217	260823	771145	1335047	560352	2978609
>>Non-Toll/Non-HOV	37119	7887	260637	755584	1314257	550818	2926303
>>Non-Toll/HOV	5410	321	186	14907	20643	9531	50998
>>Toll/HOV	496	9	0	654	147	3	1308
Total Transit	104760	12858	9130	71681	21295	0	219723
>Commuter Rail	3274	235	163	370	162	0	4204
>Light Rail	50671	5687	1369	24774	7745	0	90245
>BRT	0	0	0	0	0	0	0
>Express Bus	7890	380	100	1503	425	0	10298
>Local Bus	42925	6556	7498	45034	12963	0	114976
>Walk	87249	12006	8886	66923	21295	0	196359
>Drive	14342	482	32	3210	0	0	18066
>Driven	3169	370	212	1548	0	0	5299
School Bus	0	0	104291	4770	8101	0	117161
Walk	31849	1457	172983	160949	82477	0	449715
Bicycle	19722	3088	10377	21207	3854	0	58248
Total	1901674	212273	837844	4965105	7763140	1623503	17303539
Total	1901674	212273	837844	4965105	7763140	1623503	17303539
Home school trips percentage = School trips / total Trips (bold text above)						3.3%	

ATTACHMENT 2

CAPCOA Fact Sheets

3.1.8 Locate Project near Bike Path/Bike Lane

Range of Effectiveness: Grouped strategy. [See LUT-4]

Measure Description:

A Project that is designed around an existing or planned bicycle facility encourages alternative mode use. The project will be located within 1/2 mile of an existing Class I path or Class II bike lane. The project design should include a comparable network that connects the project uses to the existing offsite facilities.

This measure is most effective when applied in combination of multiple design elements that encourage this use. Refer to Increase Destination Accessibility (LUT-4) strategy. The benefits of Proximity to Bike Path/Bike Lane are small as a standalone strategy. The strategy should be grouped with the Increase Destination Accessibility strategy to increase the opportunities for multi-modal travel.

Measure Applicability:

- Urban or suburban context; may be applicable in a rural master planned community
- Appropriate for residential, retail, office, industrial, and mixed-use projects

Alternative Literature:

Alternate:

- 0.625% reduction in vehicle miles traveled (VMT)

As a rule of thumb, the *Center for Clean Air Policy (CCAP) Guidebook* [1] attributes a 1% to 5% reduction associated with comprehensive bicycle programs. Based on the CCAP guidebook, the TIAX report allots 2.5% reduction for all bicycle-related measures and a 1/4 of that for this measure alone. (This information is based on a TIAX review for SMAQMD).

Alternative Literature References:

[1] Center for Clean Air Policy (CCAP). *Transportation Emission Guidebook*. http://www.ccap.org/safe/guidebook/guide_complete.html; TIAX Results of 2005 Literature Search Conducted by TIAX on behalf of SMAQMD.

Other Literature Reviewed:

None

3.1.9 Improve Design of Development

Range of Effectiveness: 3.0 – 21.3% vehicle miles traveled (VMT) reduction and therefore 3.0-21.3% reduction in GHG emissions.

Measure Description:

The project will include improved design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, usually measured in terms of average block size, proportion of four-way intersections, or number of intersections per square mile. Design is also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrian crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments.

Measure Applicability:

- Urban and suburban context
- Negligible impact in a rural context
- Appropriate for residential, retail, office, industrial and mixed-use projects

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled

$EF_{running}$ = emission factor for running emissions

Inputs:

The following information needs to be provided by the Project Applicant:

- Number of intersections per square mile

Mitigation Method:

$$\% \text{ VMT Reduction} = \text{Intersections} * B$$

Where

Intersections = Percentage increase in intersections versus a typical ITE suburban development

$$= \frac{\text{Intersections per square mile of project} - \text{Intersections per square mile of typical ITE suburban development}}{\text{Intersections per square mile of typical ITE suburban development}}$$

$$= \frac{\text{Intersections per square mile of project} - 36}{36}$$

See Appendix C for detail [not to exceed 500% increase]

B = Elasticity of VMT with respect to percentage of intersections (0.12 from [1])

Assumptions:

Data based upon the following references:

[1] Ewing, R., and Cervero, R., "Travel and the Built Environment - A Meta-Analysis." *Journal of the American Planning Association*, <to be published> (2010). Table 4.

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[43]
CO_2e	3.0 – 21.3% of running
PM	3.0 – 21.3% of running
CO	3.0 – 21.3% of running
NOx	3.0 – 21.3% of running
SO_2	3.0 – 21.3% of running
ROG	1.8 – 12.8% of total

Discussion:

The VMT reductions for this strategy are based on changes in intersection density versus the standard suburban intersection density in North America. This standard density is used as a baseline to mirror the density reflected in the *ITE Trip Generation Manual*, which is the baseline method for determining VMT.

The calculations in the Example section look at a low and high range of intersection densities. The low range is simply a slightly higher density than the typical ITE

[43] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

development. The high range uses an average intersection density of mixed use/transit-oriented development sites (TOD Site surveys in the Bay Area for *Candlestick-Hunters Point Phase II TIA,* Fehr & Peers, 2009).

There are two separate maxima noted in the fact sheet: a cap of 500% on the allowable percentage increase of intersections per square mile (variable A) and a cap of 30% on % VMT reduction. The rationale for the 500% cap is that there are diminishing returns to any change in environment. For example, it is reasonably doubtful that increasing intersection density by a factor of six instead of five would produce any additional change in travel behavior. The purpose for the 30% cap is to limit the influence of any single environmental factor (such as design). This emphasizes that community designs that implement multiple land use strategies (such as density, design, diversity, etc.) will show more of a reduction than relying on improvements from a single land use factor.

Example:

Sample calculations are provided below:

- Low Range % VMT Reduction (45 intersections per square mile) = (45 – 36) / 36 * 0.12 = 3.0%
- High Range % VMT Reduction (100 intersections per square mile) = (100 – 36) / 36 * 0.12 = 21.3%

Preferred Literature:

- -0.12 = elasticity of VMT with respect to design (intersection/street density)
- -0.12 = elasticity of VMT with respect to design (% of 4-way intersections)

Ewing and Cervero's [1] synthesis showed a strong relationship of VMT to design elements, second only to destination accessibility. The weighted average elasticity of VMT to intersection/street density was -0.12 (looking at six studies). The weighted average elasticity of VMT to percentage of 4-way intersections was -0.12 (looking at four studies, of which one controlled for self-selection[44]).

Alternative Literature:

Alternate:

- 2-19% reduction in VMT

[44] Self selection occurs when residents or employers that favor travel by non-auto modes choose locations where this type of travel is possible. They are therefore more inclined to take advantage of the available options than a typical resident or employee might otherwise be.

Growing Cooler [2] looked at various reports which studied the effect of site design on VMT, showing a range of 2-19% reduction in VMT. In each case, alternative development plans for the same site were compared to a baseline or trend plan. Results suggest that VMT and CO_2 per capita decline as site density increases as well as the mix of jobs, housing, and retail uses become more balanced. *Growing Cooler* notes that the limited number of studies, differences in assumptions and methodologies, and variability of results make it difficult to generalize.

Alternate:

- 3 – 17% shift in mode share from auto to non-auto

The Marshall and Garrick paper [3] analyzes the differences in mode shares for grid and non-grid ("tree") neighborhoods. For a city with a tributary tree street network, a neighborhood with a tree network had auto mode share of 92% while a neighborhood with a grid network had auto mode share of 89% (3% difference). For a city with a tributary radial street network, a tree neighborhood had auto mode share of 97% while a grid neighborhood had auto mode share of 84% (13% difference). For a city with a grid network, a tree neighborhood had auto mode share of 95% while a grid neighborhood had auto mode share of 78% (17% difference). The research is based on 24 California cities with populations between 30,000 and 100,000.

Alternative Literature References:

[2] Ewing, et al, 2008. Growing Cooler – The Evidence on Urban Development and Climate Change. Urban Land Institute.

[3] Marshall and Garrick, 2009. "The Effect of Street Network Design on Walking and Biking." Submitted to the 89th Annual Meeting of Transportation Research Board, January 2010. (Table 3)

Other Literature Reviewed:

None

3.2 Neighborhood/Site Enhancements

3.2.1 Provide Pedestrian Network Improvements

Range of Effectiveness: 0 - 2% vehicle miles traveled (VMT) reduction and therefore 0 - 2% reduction in GHG emissions.

Measure Description:

Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The project will provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The project will minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation will be eliminated.

Measure Applicability:

- Urban, suburban, and rural context
- Appropriate for residential, retail, office, industrial and mixed-use projects
- Reduction benefit only occurs if the project has both pedestrian network improvements on site and connections to the larger off-site network.

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled

$EF_{running}$ = emission factor for running emissions

Inputs:

The project applicant must provide information regarding pedestrian access and connectivity within the project and to/from off-site destinations.

Mitigation Method:

Estimated VMT Reduction	Extent of Pedestrian Accommodations	Context
2%	Within Project Site and Connecting Off-Site	Urban/Suburban
1%	Within Project Site	Urban/Suburban
< 1%	Within Project Site and Connecting Off-Site	Rural

Assumptions:

Data based upon the following references:

- Center for Clean Air Policy (CCAP) Transportation Emission Guidebook. http://www.ccap.org/safe/guidebook/guide_complete.html (accessed March 2010)
- 1000 Friends of Oregon (1997) "Making the Connections: A Summary of the LUTRAQ Project" (p. 16): http://www.onethousandfriendsoforegon.org/resources/lut_vol7.html

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[45]
CO_2e	0 - 2% of running
PM	0 - 2% of running
CO	0 - 2% of running
NOx	0 - 2% of running
SO_2	0 - 2% of running
ROG	0 – 1.2% of total

Discussion:

As detailed in the preferred literature section below, the lower range of 1 – 2% VMT reduction was pulled from the literature to provide a conservative estimate of reduction potential. The literature does not speak directly to a rural context, but an assumption was made that the benefits will likely be lower than a suburban/urban context.

Example:

N/A – calculations are not needed.

Preferred Literature:

[45] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

- 1 - 2% reduction in VMT

The Center for Clean Air Policy (CCAP) attributes a 1% reduction in VMT from pedestrian-oriented design assuming this creates a 5% decrease in automobile mode share (e.g. auto split shifts from 95% to 90%). This mode split is based on the Portland Regional Land Use Transportation and Air Quality (LUTRAQ) project. The LUTRAQ analysis also provides the high end of 10% reduction in VMT. This 10% assumes the following features:

– Compact, mixed-use communities
– Interconnected street network
– Narrower roadways and shorter block lengths
– Sidewalks
– Accessibility to transit and transit shelters
– Traffic calming measures and street trees
– Parks and public spaces

Other strategies (development density, diversity, design, transit accessibility, traffic calming) are intended to account for the effects of many of the measures in the above list. Therefore, the assumed effectiveness of the Pedestrian Network measure should utilize the lower end of the 1 - 10% reduction range. If the pedestrian improvements are being combined with a significant number of the companion strategies, trip reductions for those strategies should be applied as well, based on the values given specifically for those strategies in other sections of this report. Based upon these findings, and drawing upon recommendations presented in the alternate literature below, the recommended VMT reduction attributable to pedestrian network improvements, above and beyond the benefits of other measures in the above bullet list, should be 1% for comprehensive pedestrian accommodations within the development plan or project itself, or 2% for comprehensive internal accommodations and external accommodations connecting to off-site destinations.

Alternative Literature:

Alternate:

- Walking is three times more common with enhanced pedestrian infrastructure
- 58% increase in non-auto mode share for work trips

The Nelson\Nygaard [1] report for the City of Santa Monica Land Use and Circulation Element EIR summarized studies looking at pedestrian environments. These studies have found a direct connection between non-auto forms of travel and a high quality pedestrian environment. Walking is three times more common with communities that have pedestrian friendly streets compared to less pedestrian friendly communities. Non-auto mode share for work trips is 49% in a pedestrian friendly community, compared to 31% in an auto-oriented community. Non-auto mode share for non-work trips is 15%, compared to 4% in an auto-oriented community. However, these effects also depend upon other aspects of the pedestrian friendliness being present, which are accounted for separately in this report through land use strategy mitigation measures such as density and urban design.

Alternate:

- 0.5% - 2.0% reduction in VMT

The Sacramento Metropolitan Air Quality Management District (SMAQMD) Recommended Guidance for Land Use Emission Reductions [2] attributes 1% reduction for a project connecting to *existing* external streets and pedestrian facilities. A 0.5% reduction is attributed to connecting to *planned* external streets and pedestrian facilities (which must be included in a pedestrian master plan or equivalent). Minimizing pedestrian barriers attribute an additional 1% reduction in VMT. These recommendations are generally in line with the recommended discounts derived from the preferred literature above.

Preferred and Alternative Literature Notes:

[1] Nelson\Nygaard, 2010. City of Santa Monica Land Use and Circulation Element EIR Report, Appendix – Santa Monica Luce Trip Reduction Impacts Analysis (p.401). http://www.shapethefuture2025.net/

Nelson\Nygaard looked at the following studies: Anne Vernez Moudon, Paul Hess, Mary Catherine Snyder and Kiril Stanilov (2003), Effects of Site Design on Pedestrian Travel in Mixed Use, Medium-Density Environments, http://www.wsdot.wa.gov/research/reports/fullreports/432.1.pdf; Robert Cervero and Carolyn Radisch (1995), Travel Choices in Pedestrian Versus Automobile Oriented Neighborhoods, http://www.uctc.net/papers/281.pdf;

[2] Sacramento Metropolitan Air Quality Management District (SMAQMD) Recommended Guidance for Land Use Emission Reductions. (p. 11) http://www.airquality.org/ceqa/GuidanceLUEmissionReductions.pdf

Other Literature Reviewed:

None

3.2.2 Provide Traffic Calming Measures

Range of Effectiveness: 0.25 – 1.00% vehicle miles traveled (VMT) reduction and therefore 0.25 – 1.00% reduction in GHG emissions.

Measure Description:

Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways will be designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.

Measure Applicability:

- Urban, suburban, and rural context
- Appropriate for residential, retail, office, industrial and mixed-use projects

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled

$EF_{running}$ = emission factor for running emissions

Inputs:

The following information needs to be provided by the Project Applicant:

- Percentage of streets within project with traffic calming improvements
- Percentage of intersections within project with traffic calming improvements

Mitigation Method:

		% of streets with improvements			
		25%	*50%*	*75%*	*100%*
		% VMT Reduction			
% of intersections with improvements	*25%*	**0.25%**	**0.25%**	**0.5%**	**0.5%**
	50%	**0.25%**	**0.5%**	**0.5%**	**0.75%**
	75%	**0.5%**	**0.5%**	**0.75%**	**0.75%**
	100%	**0.5%**	**0.75%**	**0.75%**	**1%**

Assumptions:

Data based upon the following references:

[1] Cambridge Systematics. *Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions.*(p. B-25) http://www.movingcooler.info/Library/Documents/Moving%20Cooler_Appendices_Complete_102209.pdf

[2] Sacramento Metropolitan Air Quality Management District (SMAQMD) *Recommended Guidance for Land Use Emission Reductions.* (p.13) http://www.airquality.org/ceqa/GuidanceLUEmissionReductions.pdf

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[46]
CO_2e	0.25 – 1.00% of running
PM	0.25 – 1.00% of running
CO	0.25 – 1.00% of running
NOx	0.25 – 1.00% of running
SO_2	0.25 – 1.00% of running
ROG	0.15 – 0.6% of total

Discussion:

The table above allows the Project Applicant to choose a range of street and intersection improvements to determine an appropriate VMT reduction estimate. The Applicant will look at the rows on the left and choose the percent of intersections within

[46] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

the project which will have traffic calming improvements. Then, the Applicant will look at the columns along the top and choose the percent of streets within the project which will have traffic calming improvements. The intersection cell of the row and column selected in the matrix is the VMT reduction estimate.

Though the literature provides some difference between a suburban and urban context, the difference is small and thus a conservative estimate was used to be applied to all contexts. Rural context is not specifically discussed in the literature but is assumed to have similar impacts.

For a low range, a project is assumed to have 25% of its streets with traffic calming improvements and 25% of its intersections with traffic calming improvements. For a high range, 100% of streets and intersections are assumed to have traffic calming improvements

Example:

N/A - No calculations needed.

Preferred Literature:

- -0.03 = elasticity of VMT with respect to a pedestrian environment factor (PEF)
- 1.5% - 2.0% reduction in suburban VMT
- 0.5% - 0.6% reduction in urban VMT

Moving Cooler [1] looked at Ewing's synthesis elasticity from the Smart Growth INDEX model (-0.03) to estimate VMT reduction for a suburban and urban location. The estimated reduction in VMT came from looking at the difference between the VMT results for Moving Cooler's strategy of pedestrian accessibility only compared to an aggressive strategy of pedestrian accessibility and traffic calming.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) *Recommended Guidance for Land Use Emission Reductions* [2] attributes 0.25 – 1% of VMT reductions to traffic calming measures. The table above illustrates the range of VMT reductions based on the percent of streets and intersections with traffic calming measures implemented. This range of reductions is recommended because it is generally consistent with the effectiveness ranges presented in the other preferred literature for situations in which the effects of traffic calming are distinguished from the other measures often found to co-exist with calming, and because it provides graduated effectiveness estimates depending on the degree to which calming is implemented.

Alternative Literature:

None

Alternative Literature References:

None

Other Literature Reviewed:

None

3.2.9 Dedicate Land for Bike Trails

Range of Effectiveness: Grouped strategy. [See LUT-9]

Measure Description:

Larger projects may be required to provide for, contribute to, or dedicate land for the provision of off-site bicycle trails linking the project to designated bicycle commuting routes in accordance with an adopted citywide or countywide bikeway plan.

Refer to Improve Design of Development (LUT-9**)** strategy for ranges of effectiveness in this category. The benefits of Land Dedication for Bike Trails have not been quantified and should be grouped with the Improve Design of Development strategy to strengthen street network characteristics and improve connectivity to off-site bicycle networks.

Measure Applicability:

- Urban, suburban, or rural contexts
- Appropriate for large residential, retail, office, mixed use, and industrial projects

Alternative Literature:

No literature was identified that specifically looks at the quantitative impact of implementing land dedication for bike trails.

Alternative Literature References:

None

Other Literature Reviewed:

None

3.4.3 Provide Ride-Sharing Programs

Range of Effectiveness: 1 – 15% commute vehicle miles traveled (VMT) reduction and therefore 1 - 15% reduction in commute trip GHG emissions.

Measure Description:

Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project will include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. The project will promote ride-sharing programs through a multi-faceted approach such as:

- Designating a certain percentage of parking spaces for ride sharing vehicles
- Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
- Providing a web site or message board for coordinating rides

Measure Applicability:

- Urban and suburban context
- Negligible impact in many rural contexts, but can be effective when a large employer in a rural area draws from a workforce in an urban or suburban area, such as when a major employer moves from an urban location to a rural location.
- Appropriate for residential, retail, office, industrial, and mixed-use projects

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled

$EF_{running}$ = emission factor for running emissions

Inputs:

The following information needs to be provided by the Project Applicant:

- Percentage of employees eligible

- Location of project site: low density suburb, suburban center, or urban location

Mitigation Method:

% VMT Reduction = Commute * Employee

Where

Commute = % reduction in commute VMT (from [1])
Employee = % employees eligible

Detail:

- Commute: 5% (low density suburb), 10% (suburban center), 15% (urban) annual reduction in commute VMT (from [1])

Assumptions:

Data based upon the following references:

[1] VTPI. *TDM Encyclopedia*. http://www.vtpi.org/tdm/tdm34.htm; Accessed 3/5/2010.

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[58]
CO_2e	1 – 15% of running
PM	1 – 15% of running
CO	1 – 15% of running
NOx	1 – 15% of running
SO_2	1 – 15% of running
ROG	0.6 – 9% of total

Discussion:

This strategy is often part of Commute Trip Reduction (CTR) Program, another strategy documented separately (see TRT-1 and TRT-2). The Project Applicant should take care not to double count the impacts.

Example:

Sample calculations are provided below:

[58] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

- Low Range % VMT Reduction (low density suburb and 20% eligible) = 5% * 20% = 1%
- High Range % VMT Reduction (urban and 100% eligible) = 15% * 1 = 15%

Preferred Literature:

- 5 – 15% reduction of commute VMT

The *Transportation Demand Management (TDM) Encyclopedia* notes that because rideshare passengers tend to have relatively long commutes, mileage reductions can be relatively large with rideshare. If ridesharing reduces 5% of commute trips it may reduce 10% of vehicle miles because the trips that are reduced are twice as long as average. Rideshare programs can reduce up to 8.3% of commute VMT, up to 3.6% of total regional VMT, and up to 1.8% of regional vehicle trips (Apogee, 1994; TDM Resource Center, 1996). Another study notes that ridesharing programs typically attract 5-15% of commute trips if they offer only information and encouragement, and 10-30% if they also offer financial incentives such as parking cash out or vanpool subsidies (York and Fabricatore, 2001).

Alternative Literature:

- Up to 1% reduction in VMT (if combined with two other strategies)

Per the Nelson\Nygaard report [2], ride-sharing would fall under the category of a minor TDM program strategy. The report allows a 1% reduction in VMT for projects with at least three minor strategies.

Alternative Literature References:

[2] Nelson\Nygaard, 2005. *Crediting Low-Traffic Developments* (p.12). http://www.montgomeryplanning.org/transportation/documents/TripGenerationAnalysisUsingURBEMIS.pdf

Criteron Planner/Engineers and Fehr & Peers Associates (2001). Index 4D Method. *A Quick-Response Method of Estimating Travel Impacts from Land-Use Changes*. Technical Memorandum prepared for US EPA, October 2001.

Other Literature Reviewed:

None

3.4.7 Implement Commute Trip Reduction Marketing

Range of Effectiveness: 0.8 – 4.0% commute vehicle miles traveled (VMT) reduction and therefore 0.8 – 4.0% reduction in commute trip GHG emissions.

Measure Description:

The project will implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include:

- New employee orientation of trip reduction and alternative mode options
- Event promotions
- Publications

CTR marketing is often part of a CTR program, voluntary or mandatory. CTR marketing is discussed separately here to emphasis the importance of not only providing employees with the options and monetary incentives to use alternative forms of transportation, but to clearly and deliberately promote and educate employees of the various options. This will greatly improve the impact of the implemented trip reduction strategies.

Measure Applicability:

- Urban and suburban context
- Negligible in a rural context
- Appropriate for residential, retail, office, industrial and mixed-use projects

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled
$EF_{running}$ = emission factor for running emissions

Inputs:

The following information needs to be provided by the Project Applicant:

- Percentage of project employees eligible (i.e. percentage of employers choosing to participate)

Mitigation Method:

$$\% \text{ Commute VMT Reduction} = A * B * C$$

Where

A = % reduction in commute vehicle trips (from [1])

B = % employees eligible

C = Adjustment from commute VT to commute VMT

Detail:

- A: 4% (per [1])
- C: 1.0 (see Appendix C for detail)

Assumptions:

Data based upon the following references:

[1] Pratt, Dick. Personal communication regarding the *Draft of TCRP 95 Traveler Response to Transportation System Changes – Chapter 19 Employer and Institutional TDM Strategies.* Transit Cooperative Research Program.

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[61]
CO_2e	0.8 – 4.0% of running
PM	0.8 – 4.0% of running
CO	0.8 – 4.0% of running
NOx	0.8 – 4.0% of running
SO_2	0.8 – 4.0% of running
ROG	0.5 – 2.4% of total

[61] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

Discussion:

The effectiveness of commute trip reduction marketing in reducing VMT depends on which commute reduction strategies are being promoted. The effectiveness levels provided below should only be applied if other programs are offered concurrently, and represent the total effectiveness of the full suite of measures.

This strategy is often part of a CTR Program, another strategy documented separately (see strategy T# E1). Take care not to double count the impacts.

Example:

Sample calculations are provided below:

- Low Range % VMT Reduction (20% eligible) = 4% * 20% = 0.8%
- High Range % VMT Reduction (100% eligible) = 4% * 100% = 4.0%

Preferred Literature:

- 4-5% commute vehicle trips reduced with full-scale employer support

TCRP 95 Draft Chapter 19 notes the average empirically-based estimate of reductions in vehicle trips for full-scale, site-specific employer support programs alone is 4-5%. This effectiveness assumes there are alternative commute modes available which have on-going employer support. For a program to receive credit for such outreach and marketing efforts, it should contain guarantees that the program will be maintained permanently, with promotional events delivered regularly and with routine performance monitoring.

Alternative Literature:

- 5-15% reduction in commute vehicle trips
- 3% increase in effectiveness of marketed transportation demand management (TDM) strategies

VTPI [2] notes that providing information on alternative travel modes by employers was one of the most important factors contributing to mode shifting. One study (Shadoff,1993) estimates that marketing increases the effectiveness of other TDM strategies by up to 3%. Given adequate resources, marketing programs may reduce vehicle trips by 5-15%. The 5 – 15% range comes from a variety of case studies across the world. U.S. specific case studies include: 9% reduction in vehicle trips with TravelSmart in Portland (12% reduction in VMT), 4-8% reduction in vehicle trips from four cities with individualized marketing pilot projects from the Federal Transit Administration (FTA). Averaged across the four pilot projects, there was a 6.75% reduction in VMT.

Alternative Literature References:

[2] VTPI, TDM Encyclopedia – TDM Marketing; http://www.vtpi.org/tdm/tdm23.htm; accessed 3/5/2010. Table 7 (citing FTA, 2006)

Other Literature Reviewed:

None

3.4.10 Implement a School Pool Program

Range of Effectiveness: 7.2 – 15.8% school vehicle miles traveled (VMT) Reduction and therefore 7.2 – 15.8% reduction in school trip GHG emissions.

Measure Description:

This project will create a ridesharing program for school children. Most school districts provide bussing services to public schools only. SchoolPool helps match parents to transport students to private schools, or to schools where students cannot walk or bike but do not meet the requirements for bussing.

Measure Applicability:

- Urban, suburban, and rural context
- Appropriate for residential and mixed-use projects

Baseline Method:

See introduction to transportation section for a discussion of how to estimate trip rates and VMT. The CO_2 emissions are calculated from VMT as follows:

$$CO_2 = VMT \times EF_{running}$$

Where:

VMT = vehicle miles traveled

$EF_{running}$ = emission factor for running emissions

Inputs:

The following information needs to be provided by the Project Applicant:

- Degree of implementation of SchoolPool Program(moderate to aggressive)

Mitigation Method:

$$\% \text{ VMT Reduction} = \text{Families} * B$$

Where

Families = % families that participate (from [1] and [2])

B = adjustments to convert from participation to daily VMT to annual school VMT

Detail:

- Families: 16% (moderate implementation), 35% (aggressive implementation), (from [1] and [2])
- B: 45% (see Appendix C for detail)

Assumptions:

Data based upon the following references:

[1] Transportation Demand Management Institute of the Association for Commuter Transportation. *TDM Case Studies and Commuter Testimonials*. Prepared for the US EPA. 1997. (p. 10, 36-38) http://www.epa.gov/OMS/stateresources/rellinks/docs/tdmcases.pdf

[2] Denver Regional Council of Governments (DRCOG). *Survey of Schoolpool Participants, April 2008.* http://www.drcog.org/index.cfm?page=SchoolPool. Obtained from Schoolpool Coordinator, Mia Bemelen.

Emission Reduction Ranges and Variables:

Pollutant	Category Emissions Reductions[64]
CO_2e	7.2 – 15.8% of running
PM	7.2 – 15.8% of running
CO	7.2 – 15.8% of running
NOx	7.2 – 15.8% of running
SO_2	7.2 – 15.8% of running
ROG	4.3 – 9.5% of total

Discussion:

This strategy reflects the findings from only one case study.

Example:

Sample calculations are provided below:

- Low Range % School VMT Reduction (moderate implementation) = 16% * 45% = 7.2%
- High Range % School VMT Reduction (aggressive implementation) = 35% * 45% = 15.8%

[64] The percentage reduction reflects emission reductions from running emissions. The actual value will be less than this when starting and evaporative emissions are factored into the analysis. ROG emissions have been adjusted to reflect a ratio of 40% evaporative and 60% exhaust emissions based on a statewide EMFAC run of all vehicles.

Preferred Literature:

- 7,711 – 18,659 daily VMT reduction

As presented in the TDM Case Studies [1] compilation, the SchoolPool program in Denver saved 18,659 VMT per day in 1995, compared with 7,711 daily in 1994 – a 142% increase. The Denver Regional Council of Governments (DRCOG) [2] enrolled approximately 7,000 families and 32 private schools in the program. The DRCOG staff surveyed a school or interested families to collect home location and schedules of the students. The survey also identified prospective drivers. DRCOG then used carpool-matching software and GIS to match families. These match lists were sent to the parents for them to form their own school pools. 16% of families in the database formed carpools. The average carpool carried 3.1 students.

The SchoolPool program is still in effect and surveys are conducted every few years to monitor the effectiveness of the program. The latest survey report received was in 2008. The report showed that the participant database had increased to over 10,000 families, an 18% increase from 2005. 29% of participants used the list to form a school carpool. This percentage was lower than 35% in 2005 but higher than prior to 2005, at 24%. The average number of families in each carpool ranged from 2.1 prior to 2005 to 2.8 in 2008. The average number of carpool days per week was roughly 4.7. The number of school weeks per year was 39. Per discussions with the Schoolpool Coordinator, a main factor of success was establishing a large database. This was achieved by having parents opt-out of the database versus opting-in.

Alternative Literature:

None

Alternative Literature References:

None

Other Literature Reviewed:

None

Appendix B

CalEEMod Model Outputs

Otay Ranch Resort Village Unmitigated - San Diego Air Basin, Annual

Otay Ranch Resort Village Unmitigated

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Condo/Townhouse	57.00	Dwelling Unit	13.10	57,000.00	163
Single Family Housing	1,881.00	Dwelling Unit	525.00	3,385,800.00	5380
Strip Mall	40.00	1000sqft	1.00	40,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	361.68598	**CH4 Intensity (lb/MWhr)**	0.014558	**N2O Intensity (lb/MWhr)**	0.003012

1.3 User Entered Comments & Non-Default Data

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100

tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	195281	200281
tblAreaCoating	Area_Nonresidential_Interior	585843	600843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	31.35	57.00
tblFireplaces	NumberGas	1,034.55	1,881.00
tblFireplaces	NumberNoFireplace	5.70	0.00
tblFireplaces	NumberNoFireplace	188.10	0.00
tblFireplaces	NumberWood	19.95	0.00
tblFireplaces	NumberWood	658.35	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	3.56	13.10
tblLandUse	LotAcreage	610.71	525.00
tblLandUse	LotAcreage	0.92	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014558
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.68598
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003012
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	26.22	28.49
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	949.39
tblSolidWaste	SolidWasteGenerationRate	42.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	ST_TR	0.00	48.10

tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	5.81	8.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	2.85	0.00
tblWoodstoves	NumberCatalytic	94.05	0.00
tblWoodstoves	NumberNoncatalytic	2.85	0.00
tblWoodstoves	NumberNoncatalytic	94.05	0.00

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	tons/yr										MT/yr					
Area	16.9322	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638
Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.0691	6,637.0691	0.1970	0.0886	6,668.3855
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	43.7004	517.2191	560.9195	4.5093	0.1103	706.5175
Total	**22.2138**	**25.0319**	**73.3305**	**0.2523**	**25.4828**	**0.5017**	**25.9846**	**6.8212**	**0.4910**	**7.3122**	**281.7475**	**29,138.2007**	**29,419.9482**	**19.8543**	**0.2091**	**29,978.6148**

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	16.9262	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.0691	6,637.0691	0.1970	0.0886	6,668.3855
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	34.9603	391.4786	426.4390	3.6065	0.0881	542.8396
Total	**22.2078**	**25.0309**	**73.2270**	**0.2523**	**25.4828**	**0.5011**	**25.9839**	**6.8212**	**0.4904**	**7.3116**	**273.0075**	**29,012.2483**	**29,285.2557**	**18.9512**	**0.1869**	**29,814.7169**

	ROG	NOx	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	**0.03**	**0.00**	**0.14**	**0.00**	**0.00**	**0.12**	**0.00**	**0.00**	**0.12**	**0.01**	**3.10**	**0.43**	**0.46**	**4.55**	**10.64**	**0.55**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	**-248.2327**

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	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Unmitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

City Park	148.50	148.50	148.50	229,331	229,331
Condo/Townhouse	456.00	456.00	456.00	1,302,018	1,302,018
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	18,810.00	18,810.00	18810.00	53,708,256	53,708,256
Strip Mall	4,800.00	4,800.00	4800.00	7,392,159	7,392,159
Total	27,195.50	26,295.50	26,295.50	67,656,320	67,656,320

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Condo/Townhouse	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

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	3,309.8717	3,309.8717	0.1332	0.0276	3,321.4162
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,309.8717	3,309.8717	0.1332	0.0276	3,321.4162
NaturalGas Mitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694
NaturalGas Unmitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694

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					
City Park	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
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883

Total		**0.3362**	**2.9246**	**1.6008**	**0.0184**		**0.2323**	**0.2323**		**0.2323**	**0.2323**	**0.0000**	**3,327.1975**	**3,327.1975**	**0.0638**	**0.0610**	**3,346.9694**

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					
City Park	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
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883
Total		**0.3362**	**2.9246**	**1.6008**	**0.0184**		**0.2323**	**0.2323**		**0.2323**	**0.2323**	**0.0000**	**3,327.1975**	**3,327.1975**	**0.0638**	**0.0610**	**3,346.9694**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9747	1.8900e-003	3.9000e-004	47.1385

Elementary School	262849	43.1225	1.7400e-003	3.6000e-004	43.2729
Government Office Building	134400	22.0494	8.9000e-004	1.8000e-004	22.1263
Hotel	3.76068e+006	616.9696	0.0248	5.1400e-003	619.1216
Single Family Housing	1.52284e+007	2,498.3327	0.1006	0.0208	2,507.0467
Strip Mall	502400	82.4227	3.3200e-003	6.9000e-004	82.7102
Total		**3,309.8717**	**0.1332**	**0.0276**	**3,321.4162**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9747	1.8900e-003	3.9000e-004	47.1385
Elementary School	262849	43.1225	1.7400e-003	3.6000e-004	43.2729
Government Office Building	134400	22.0494	8.9000e-004	1.8000e-004	22.1263
Hotel	3.76068e+006	616.9696	0.0248	5.1400e-003	619.1216
Single Family Housing	1.52284e+007	2,498.3327	0.1006	0.0208	2,507.0467
Strip Mall	502400	82.4227	3.3200e-003	6.9000e-004	82.7102
Total		**3,309.8717**	**0.1332**	**0.0276**	**3,321.4162**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.9262	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Unmitigated	16.9322	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

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	1.4624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3599	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5213	23.5213	0.0224	0.0000	24.0822
Total	**16.9322**	**0.6477**	**14.5651**	**3.8400e-003**		**0.1188**	**0.1188**		**0.1188**	**0.1188**	**0.0000**	**581.9843**	**581.9843**	**0.0331**	**0.0102**	**585.8638**

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	1.4624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4240	0.1645	14.2564	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3094	23.3094	0.0221	0.0000	23.8623
Total	**16.9262**	**0.6467**	**14.4616**	**3.8300e-003**		**0.1182**	**0.1182**		**0.1182**	**0.1182**	**0.0000**	**581.7723**	**581.7723**	**0.0328**	**0.0102**	**585.6438**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	426.4390	3.6065	0.0881	542.8396

Unmitigated	560.9195	4.5093	0.1103	706.5175

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.4993	2.6000e-003	5.4000e-004	64.7243
Condo/Townhouse	3.71378 / 2.3413	13.3790	0.1215	2.9600e-003	17.2984
Elementary School	1.45454 / 3.74026	10.3860	0.0478	1.2000e-003	11.9390
Government Office Building	1.9866 / 1.21759	7.0933	0.0650	1.5800e-003	9.1897
Hotel	5.07335 / 0.563706	13.4747	0.1658	4.0000e-003	18.8122
Single Family Housing	122.555 / 77.2628	441.5079	4.0097	0.0977	570.8480
Strip Mall	2.9629 / 1.81597	10.5793	0.0969	2.3600e-003	13.7059
Total		**560.9195**	**4.5093**	**0.1103**	**706.5175**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1495	1.8200e-003	3.8000e-004	45.3070

Condo/Townhouse	2.97102 / 1.63891	10.2765	0.0972	2.3600e-003	13.4105
Elementary School	1.16364 / 2.61818	7.6270	0.0382	9.6000e-004	8.8671
Government Office Building	1.58928 / 0.852314	5.4527	0.0520	1.2600e-003	7.1290
Hotel	4.05868 / 0.394594	10.6770	0.1326	3.2000e-003	14.9467
Single Family Housing	98.0438 / 54.0839	339.1238	3.2072	0.0780	442.5467
Strip Mall	2.37032 / 1.27118	8.1324	0.0775	1.8900e-003	10.6326
Total		**426.4390**	**3.6065**	**0.0881**	**542.8396**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	238.0471	14.0682	0.0000	589.7517
Unmitigated	238.0471	14.0682	0.0000	589.7517

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**238.0471**	**14.0682**	**0.0000**	**589.7517**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810

Total		**238.0471**	**14.0682**	**0.0000**	**589.7517**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	-2,150.0050	0.0000	0.0000	-2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		**-4,047.4167**	**0.0000**	**0.0000**	**-4,047.4167**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		**3,799.1840**	**0.0000**	**0.0000**	**3,799.1840**

Otay Ranch Resort Village Unmitigated Optional Development Scenario

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Single Family Housing	1,938.00	Dwelling Unit	538.10	3,385,800.00	5380
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	361.69	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100

tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	185281	195281
tblAreaCoating	Area_Nonresidential_Interior	555843	585843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	1,065.90	1,938.00
tblFireplaces	NumberNoFireplace	193.80	0.00
tblFireplaces	NumberWood	678.30	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LandUseSquareFeet	3,488,400.00	3,385,800.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	629.22	538.10
tblLandUse	LotAcreage	0.46	1.00
tblLandUse	Population	5,543.00	5,380.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	988.46
tblSolidWaste	SolidWasteGenerationRate	21.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00

tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	96.90	0.00
tblWoodstoves	NumberNoncatalytic	96.90	0.00

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	tons/yr										MT/yr					
Area	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	43.2304	512.4051	555.6355	4.4614	0.1091	699.6808
Total	**21.5443**	**23.5599**	**70.0201**	**0.2404**	**24.2133**	**0.4953**	**24.7085**	**6.4813**	**0.4851**	**6.9665**	**283.4247**	**28,025.2259**	**28,308.6505**	**19.8784**	**0.2081**	**28,867.6345**

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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	34.5843	387.7927	422.3770	3.5682	0.0871	537.5356
Total	**21.5382**	**23.5589**	**69.9166**	**0.2404**	**24.2133**	**0.4946**	**24.7079**	**6.4813**	**0.4845**	**6.9659**	**274.7786**	**27,900.4015**	**28,175.1801**	**18.9848**	**0.1861**	**28,705.2693**

	ROG	NOx	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	**0.03**	**0.00**	**0.15**	**0.00**	**0.00**	**0.12**	**0.00**	**0.00**	**0.13**	**0.01**	**3.05**	**0.45**	**0.47**	**4.49**	**10.57**	**0.56**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	**-248.2327**

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	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Unmitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	19,380.00	19,380.00	19380.00	55,335,779	55,335,779
Strip Mall	2,400.00	2,400.00	2400.00	3,696,079	3,696,079
Total	24,909.50	24,009.50	24,009.50	64,285,745	64,285,745

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
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

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	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
NaturalGas Mitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260
NaturalGas Unmitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260

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					
City Park	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
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.6533	0.0464	0.0443	2,433.0261
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.3387**	**2.9460**	**1.6091**	**0.0185**		**0.2340**	**0.2340**		**0.2340**	**0.2340**	**0.0000**	**3,352.2055**	**3,352.2055**	**0.0643**	**0.0615**	**3,372.1260**

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					
City Park	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
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.6533	0.0464	0.0443	2,433.0261

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.3387**	**2.9460**	**1.6091**	**0.0185**		**0.2340**	**0.2340**		**0.2340**	**0.2340**	**0.0000**	**3,352.2055**	**3,352.2055**	**0.0643**	**0.0615**	**3,372.1260**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		**3,297.4293**	**0.1368**	**0.0274**	**3,308.9984**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743

Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		**3,297.4293**	**0.1368**	**0.0274**	**3,308.9984**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Unmitigated	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

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	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3597	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5210	23.5210	0.0224	0.0000	24.0818
Total	**16.6063**	**0.6477**	**14.5649**	**3.8400e-003**		**0.1188**	**0.1188**		**0.1188**	**0.1188**	**0.0000**	**581.9839**	**581.9839**	**0.0331**	**0.0102**	**585.8634**

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	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4239	0.1645	14.2562	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3090	23.3090	0.0221	0.0000	23.8619
Total	**16.6003**	**0.6467**	**14.4614**	**3.8300e-003**		**0.1182**	**0.1182**		**0.1182**	**0.1182**	**0.0000**	**581.7720**	**581.7720**	**0.0328**	**0.0102**	**585.6435**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	422.3770	3.5682	0.0871	537.5356
Unmitigated	555.6355	4.4614	0.1091	699.6808

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	126.269 / 79.6041	454.8915	4.1317	0.1006	588.1596
Strip Mall	1.48145 / 0.907986	5.2897	0.0485	1.1800e-003	6.8531
Total		**555.6355**	**4.4614**	**0.1091**	**699.6808**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e-004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e-003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e-003	14.9470
Single Family Housing	101.015 / 55.7228	349.4038	3.3047	0.0804	455.9673
Strip Mall	1.18516 / 0.63559	4.0663	0.0388	9.4000e-004	5.3164
Total		**422.3770**	**3.5682**	**0.0871**	**537.5356**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	240.1943	14.1951	0.0000	595.0712
Unmitigated	240.1943	14.1951	0.0000	595.0712

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**240.1943**	**14.1951**	**0.0000**	**595.0712**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393

Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**240.1943**	**14.1951**	**0.0000**	**595.0712**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	-2,150.0050	0.0000	0.0000	-2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		**-4,047.4167**	**0.0000**	**0.0000**	**-4,047.4167**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840

Total		**3,799.1840**	**0.0000**	**0.0000**	**3,799.1840**

Otay Ranch Resort Village Mitigated - San Diego Air Basin, Annual

Otay Ranch Resort Village Mitigated

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Condo/Townhouse	57.00	Dwelling Unit	13.10	57,000.00	163
Single Family Housing	1,881.00	Dwelling Unit	525.00	3,385,800.00	5380
Strip Mall	40.00	1000sqft	1.00	40,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	361.69	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50

tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	31.35	57.00
tblFireplaces	NumberGas	1,034.55	1,881.00
tblFireplaces	NumberNoFireplace	5.70	0.00
tblFireplaces	NumberNoFireplace	188.10	0.00
tblFireplaces	NumberWood	19.95	0.00
tblFireplaces	NumberWood	658.35	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	3.56	13.10
tblLandUse	LotAcreage	610.71	525.00
tblLandUse	LotAcreage	0.92	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	26.22	28.49
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	949.39
tblSolidWaste	SolidWasteGenerationRate	42.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00

tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	5.81	8.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	2.85	0.00
tblWoodstoves	NumberCatalytic	94.05	0.00
tblWoodstoves	NumberNoncatalytic	2.85	0.00
tblWoodstoves	NumberNoncatalytic	94.05	0.00

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	tons/yr										MT/yr					
Area	16.9293	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.1059	6,637.1059	0.2010	0.0885	6,668.4907
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	43.7004	517.2248	560.9252	4.5099	0.1103	706.5339
Total	**22.2109**	**25.0319**	**73.3305**	**0.2523**	**25.4828**	**0.5017**	**25.9846**	**6.8212**	**0.4910**	**7.3122**	**281.7475**	**29,138.2432**	**29,419.9907**	**19.8590**	**0.2090**	**29,978.7364**

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	16.9233	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Energy	0.3087	2.6858	1.4704	0.0168		0.2133	0.2133		0.2133	0.2133	0.0000	6,149.3958	6,149.3958	0.1869	0.0817	6,178.4082
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	34.9603	391.4830	426.4433	3.6070	0.0880	542.8520
Total	**22.1774**	**24.7921**	**73.0965**	**0.2508**	**25.4828**	**0.4822**	**25.9650**	**6.8212**	**0.4715**	**7.2926**	**273.0075**	**28,524.5793**	**28,797.5868**	**18.9416**	**0.1800**	**29,324.7520**

	ROG	NOx	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	**0.15**	**0.96**	**0.32**	**0.60**	**0.00**	**3.90**	**0.08**	**0.00**	**3.99**	**0.27**	**3.10**	**2.11**	**2.12**	**4.62**	**13.88**	**2.18**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	**-248.2327**

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	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Unmitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Condo/Townhouse	456.00	456.00	456.00	1,302,018	1,302,018
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857

Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	18,810.00	18,810.00	18810.00	53,708,256	53,708,256
Strip Mall	4,800.00	4,800.00	4800.00	7,392,159	7,392,159
Total	27,195.50	26,295.50	26,295.50	67,656,320	67,656,320

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Condo/Townhouse	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	3,093.9022	3,093.9022	0.1283	0.0257	3,104.7572
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,309.9084	3,309.9084	0.1373	0.0275	3,321.5214
NaturalGas Mitigated	0.3087	2.6858	1.4704	0.0168		0.2133	0.2133		0.2133	0.2133	0.0000	3,055.4937	3,055.4937	0.0586	0.0560	3,073.6510
NaturalGas Unmitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694

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					
City Park	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
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883

Total		**0.3362**	**2.9246**	**1.6008**	**0.0184**		**0.2323**	**0.2323**		**0.2323**	**0.2323**	**0.0000**	**3,327.1975**	**3,327.1975**	**0.0638**	**0.0610**	**3,346.9694**

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					
City Park	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
Condo/Townhouse	761666	4.1100e-003	0.0351	0.0149	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003	0.0000	40.6454	40.6454	7.8000e-004	7.5000e-004	40.8869
Elementary School	269671	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	14.3907	14.3907	2.8000e-004	2.6000e-004	14.4762
Government Office Building	185910	1.0000e-003	9.1100e-003	7.6600e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9209	9.9209	1.9000e-004	1.8000e-004	9.9798
Hotel	1.55779e+007	0.0840	0.7636	0.6414	4.5800e-003		0.0580	0.0580		0.0580	0.0580	0.0000	831.2975	831.2975	0.0159	0.0152	836.2375
Single Family Housing	4.0378e+007	0.2177	1.8606	0.7917	0.0119		0.1504	0.1504		0.1504	0.1504	0.0000	2,154.7225	2,154.7225	0.0413	0.0395	2,167.5270
Strip Mall	84640	4.6000e-004	4.1500e-003	3.4900e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5167	4.5167	9.0000e-005	8.0000e-005	4.5436
Total		**0.3087**	**2.6858**	**1.4703**	**0.0168**		**0.2133**	**0.2133**		**0.2133**	**0.2133**	**0.0000**	**3,055.4937**	**3,055.4937**	**0.0586**	**0.0560**	**3,073.6510**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9752	1.9500e-003	3.9000e-004	47.1400

Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.52284e+007	2,498.3605	0.1036	0.0207	2,507.1260
Strip Mall	502400	82.4237	3.4200e-003	6.8000e-004	82.7128
Total		**3,309.9085**	**0.1373**	**0.0275**	**3,321.5214**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	268973	44.1277	1.8300e-003	3.7000e-004	44.2825
Elementary School	236113	38.7366	1.6100e-003	3.2000e-004	38.8725
Government Office Building	124025	20.3475	8.4000e-004	1.7000e-004	20.4189
Hotel	3.38098e+006	554.6833	0.0230	4.6000e-003	556.6294
Single Family Housing	1.43959e+007	2,361.7929	0.0980	0.0196	2,370.0794
Strip Mall	452360	74.2141	3.0800e-003	6.2000e-004	74.4745
Total		**3,093.9022**	**0.1283**	**0.0257**	**3,104.7572**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.9233	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Unmitigated	16.9293	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

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	1.4595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3599	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5213	23.5213	0.0224	0.0000	24.0822
Total	**16.9293**	**0.6477**	**14.5651**	**3.8400e-003**		**0.1188**	**0.1188**		**0.1188**	**0.1188**	**0.0000**	**581.9843**	**581.9843**	**0.0331**	**0.0102**	**585.8638**

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	1.4595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4240	0.1645	14.2564	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3094	23.3094	0.0221	0.0000	23.8623
Total	**16.9233**	**0.6467**	**14.4616**	**3.8300e-003**		**0.1182**	**0.1182**		**0.1182**	**0.1182**	**0.0000**	**581.7723**	**581.7723**	**0.0328**	**0.0102**	**585.6438**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	426.4433	3.6070	0.0880	542.8520

Unmitigated	560.9252	4.5099	0.1103	706.5339

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Condo/Townhouse	3.71378 / 2.3413	13.3792	0.1215	2.9600e-003	17.2988
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	122.555 / 77.2628	441.5124	4.0102	0.0976	570.8608
Strip Mall	2.9629 / 1.81597	10.5794	0.0970	2.3600e-003	13.7062
Total		**560.9252**	**4.5099**	**0.1103**	**706.5339**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084

Condo/Townhouse	2.97102 / 1.63891	10.2766	0.0972	2.3600e-003	13.4108
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e-004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e-003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e-003	14.9470
Single Family Housing	98.0438 / 54.0839	339.1272	3.2075	0.0780	442.5565
Strip Mall	2.37032 / 1.27118	8.1325	0.0775	1.8800e-003	10.6328
Total		**426.4433**	**3.6070**	**0.0880**	**542.8520**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	238.0471	14.0682	0.0000	589.7517
Unmitigated	238.0471	14.0682	0.0000	589.7517

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**238.0471**	**14.0682**	**0.0000**	**589.7517**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810

Total		**238.0471**	**14.0682**	**0.0000**	**589.7517**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	-2,150.0050	0.0000	0.0000	-2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		**-4,047.4167**	**0.0000**	**0.0000**	**-4,047.4167**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		**3,799.1840**	**0.0000**	**0.0000**	**3,799.1840**

Otay Ranch Resort Village Mitigated Optional Development Scenario

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Single Family Housing	1,938.00	Dwelling Unit	538.10	3,385,800.00	5380
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	361.69	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100

tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	185281	195281
tblAreaCoating	Area_Nonresidential_Interior	555843	585843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	1,065.90	1,938.00
tblFireplaces	NumberNoFireplace	193.80	0.00
tblFireplaces	NumberWood	678.30	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LandUseSquareFeet	3,488,400.00	3,385,800.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	629.22	538.10
tblLandUse	LotAcreage	0.46	1.00
tblLandUse	Population	5,543.00	5,380.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	988.46
tblSolidWaste	SolidWasteGenerationRate	21.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00

tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	96.90	0.00
tblWoodstoves	NumberNoncatalytic	96.90	0.00

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	tons/yr										MT/yr					
Area	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	43.2304	512.4051	555.6355	4.4614	0.1091	699.6808
Total	**21.5443**	**23.5599**	**70.0201**	**0.2404**	**24.2133**	**0.4953**	**24.7085**	**6.4813**	**0.4851**	**6.9665**	**283.4247**	**28,025.2259**	**28,308.6505**	**19.8784**	**0.2081**	**28,867.6345**

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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Energy	0.3110	2.7050	1.4777	0.0170		0.2149	0.2149		0.2149	0.2149	0.0000	6,162.1214	6,162.1214	0.1869	0.0820	6,191.2329
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	34.5843	387.7927	422.3770	3.5682	0.0871	537.5356
Total	**21.5105**	**23.3178**	**69.7852**	**0.2389**	**24.2133**	**0.4755**	**24.6888**	**6.4813**	**0.4654**	**6.9467**	**274.7786**	**27,412.8882**	**27,687.6668**	**18.9707**	**0.1793**	**28,215.3779**

	ROG	NOx	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	**0.16**	**1.03**	**0.34**	**0.64**	**0.00**	**3.99**	**0.08**	**0.00**	**4.07**	**0.28**	**3.05**	**2.18**	**2.19**	**4.57**	**13.84**	**2.26**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	**-248.2327**

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	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Unmitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	19,380.00	19,380.00	19380.00	55,335,779	55,335,779
Strip Mall	2,400.00	2,400.00	2400.00	3,696,079	3,696,079
Total	24,909.50	24,009.50	24,009.50	64,285,745	64,285,745

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
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	3,084.2369	3,084.2369	0.1279	0.0256	3,095.0580
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
NaturalGas Mitigated	0.3110	2.7050	1.4777	0.0170		0.2149	0.2149		0.2149	0.2149	0.0000	3,077.8845	3,077.8845	0.0590	0.0564	3,096.1749

NaturalGas Unmitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260

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					
City Park	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
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.6533	0.0464	0.0443	2,433.0261
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.3387**	**2.9460**	**1.6091**	**0.0185**		**0.2340**	**0.2340**		**0.2340**	**0.2340**	**0.0000**	**3,352.2055**	**3,352.2055**	**0.0643**	**0.0615**	**3,372.1260**

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					
City Park	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
Elementary School	269671	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	14.3907	14.3907	2.8000e-004	2.6000e-004	14.4762
Government Office Building	185910	1.0000e-003	9.1100e-003	7.6600e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9209	9.9209	1.9000e-004	1.8000e-004	9.9798

Hotel	1.55779e+007	0.0840	0.7636	0.6414	4.5800e-003		0.0580	0.0580		0.0580	0.0580	0.0000	831.2975	831.2975	0.0159	0.0152	836.2375
Single Family Housing	4.16015e+007	0.2243	1.9169	0.8157	0.0122		0.1550	0.1550		0.1550	0.1550	0.0000	2,220.0171	2,220.0171	0.0426	0.0407	2,233.2096
Strip Mall	42320	2.3000e-004	2.0700e-003	1.7400e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2584	2.2584	4.0000e-005	4.0000e-005	2.2718
Total		**0.3110**	**2.7050**	**1.4777**	**0.0170**		**0.2149**	**0.2149**		**0.2149**	**0.2149**	**0.0000**	**3,077.8846**	**3,077.8846**	**0.0590**	**0.0564**	**3,096.1749**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		**3,297.4293**	**0.1368**	**0.0274**	**3,308.9984**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	236113	38.7366	1.6100e-003	3.2000e-004	38.8725
Government Office Building	124025	20.3475	8.4000e-004	1.7000e-004	20.4189
Hotel	3.38098e+006	554.6833	0.0230	4.6000e-003	556.6294
Single Family Housing	1.48322e+007	2,433.3624	0.1009	0.0202	2,441.8999
Strip Mall	226180	37.1071	1.5400e-003	3.1000e-004	37.2372
Total		**3,084.2369**	**0.1279**	**0.0256**	**3,095.0580**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Unmitigated	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

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	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3597	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5210	23.5210	0.0224	0.0000	24.0818
Total	**16.6063**	**0.6477**	**14.5649**	**3.8400e-003**		**0.1188**	**0.1188**		**0.1188**	**0.1188**	**0.0000**	**581.9839**	**581.9839**	**0.0331**	**0.0102**	**585.8634**

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	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4239	0.1645	14.2562	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3090	23.3090	0.0221	0.0000	23.8619
Total	**16.6003**	**0.6467**	**14.4614**	**3.8300e-003**		**0.1182**	**0.1182**		**0.1182**	**0.1182**	**0.0000**	**581.7720**	**581.7720**	**0.0328**	**0.0102**	**585.6435**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	422.3770	3.5682	0.0871	537.5356
Unmitigated	555.6355	4.4614	0.1091	699.6808

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	126.269 / 79.6041	454.8915	4.1317	0.1006	588.1596
Strip Mall	1.48145 / 0.907986	5.2897	0.0485	1.1800e-003	6.8531

Total		**555.6355**	**4.4614**	**0.1091**	**699.6808**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e-004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e-003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e-003	14.9470
Single Family Housing	101.015 / 55.7228	349.4038	3.3047	0.0804	455.9673
Strip Mall	1.18516 / 0.63559	4.0663	0.0388	9.4000e-004	5.3164
Total		**422.3770**	**3.5682**	**0.0871**	**537.5356**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	240.1943	14.1951	0.0000	595.0712
Unmitigated	240.1943	14.1951	0.0000	595.0712

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**240.1943**	**14.1951**	**0.0000**	**595.0712**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156

Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		**240.1943**	**14.1951**	**0.0000**	**595.0712**

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

	Total CO2	CH4	N2O	CO2e

Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	-2,150.0050	0.0000	0.0000	-2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		**-4,047.4167**	**0.0000**	**0.0000**	**-4,047.4167**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e

		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		**3,799.1840**	**0.0000**	**0.0000**	**3,799.1840**

Otay Ranch Resort Village Year 1 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.60	Acre	3.60	156,816.00	0
Single Family Housing	101.00	Dwelling Unit	28.30	181,800.00	289

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	78408	0
tblAreaCoating	Area_Nonresidential_Interior	235224	0

tblAreaCoating	Area_Residential_Exterior	122715	0
tblAreaCoating	Area_Residential_Interior	368145	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	500.00	219.00
tblConstructionPhase	NumDays	45.00	129.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblGrading	AcresOfGrading	903.00	41.50
tblGrading	MaterialExported	0.00	438,850.00
tblGrading	MaterialImported	0.00	438,850.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	32.79	28.30
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	46.00
tblTripsAndVMT	WorkerTripNumber	102.00	204.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.2197	24.7491	16.4427	0.0340	1.1850	0.9516	2.1366	0.5265	0.8836	1.4101	0.0000	3,102.1165	3,102.1165	0.7352	0.0000	3,120.4967
Maximum	**3.2197**	**24.7491**	**16.4427**	**0.0340**	**1.1850**	**0.9516**	**2.1366**	**0.5265**	**0.8836**	**1.4101**	**0.0000**	**3,102.1165**	**3,102.1165**	**0.7352**	**0.0000**	**3,120.4967**

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					
2019	3.2197	24.7491	16.4427	0.0340	0.6600	0.9516	1.6116	0.2588	0.8836	1.1424	0.0000	3,102.1141	3,102.1141	0.7352	0.0000	3,120.4943
Maximum	**3.2197**	**24.7491**	**16.4427**	**0.0340**	**0.6600**	**0.9516**	**1.6116**	**0.2588**	**0.8836**	**1.1424**	**0.0000**	**3,102.1141**	**3,102.1141**	**0.7352**	**0.0000**	**3,120.4943**

	ROG	NOx	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**	**44.30**	**0.00**	**24.57**	**50.84**	**0.00**	**18.98**	**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)
		Highest		

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	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Energy	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Mobile	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	24.1153	0.0000	24.1153	1.4252	0.0000	59.7447
Water						0.0000	0.0000		0.0000	0.0000	2.0877	0.0000	2.0877	0.2144	5.0600e-003	8.9572
Total	**7.6950**	**0.2412**	**8.6171**	**0.0149**	**0.8931**	**1.1098**	**2.0029**	**0.2192**	**1.1098**	**1.3290**	**130.5318**	**171.0286**	**301.5603**	**1.7395**	**0.0156**	**349.6898**

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	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Energy	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Mobile	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	24.1153	0.0000	24.1153	1.4252	0.0000	59.7447
Water						0.0000	0.0000		0.0000	0.0000	2.0877	0.0000	2.0877	0.2144	5.0600e-003	8.9572
Total	**7.6950**	**0.2412**	**8.6171**	**0.0149**	**0.8931**	**1.1098**	**2.0029**	**0.2192**	**1.1098**	**1.3290**	**130.5318**	**171.0286**	**301.5603**	**1.7395**	**0.0156**	**349.6898**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2019	6/30/2019	5	129	
2	Utilities	Trenching	2/1/2019	7/1/2019	5	108	
3	Building Construction	Building Construction	3/1/2019	12/31/2019	5	219	
4	Paving	Paving	7/1/2019	12/31/2019	5	132	
5	Architectural Coating	Architectural Coating	7/1/2019	12/31/2019	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 41.5

Acres of Paving: 0

Residential Indoor: 368,145; Residential Outdoor: 122,715; Non-Residential Indoor: 235,224; Non-Residential Outdoor: 78,408; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	46.00	0.00	109,713.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	204.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2019

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					0.8605	0.0000	0.8605	0.4387	0.0000	0.4387	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8463	9.4194	6.7559	0.0111		0.4269	0.4269		0.3928	0.3928	0.0000	995.0059	995.0059	0.3148	0.0000	1,002.8762
Total	**0.8463**	**9.4194**	**6.7559**	**0.0111**	**0.8605**	**0.4269**	**1.2874**	**0.4387**	**0.3928**	**0.8315**	**0.0000**	**995.0059**	**995.0059**	**0.3148**	**0.0000**	**1,002.8762**

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	0.1220	5.6957	0.9280	6.4200e-003	0.0246	6.3100e-003	0.0309	6.8600e-003	6.0400e-003	0.0129	0.0000	632.9061	632.9061	0.1192	0.0000	635.8861
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	0.0117	8.9800e-003	0.0868	2.5000e-004	0.0238	1.7000e-004	0.0240	6.3200e-003	1.6000e-004	6.4800e-003	0.0000	22.2079	22.2079	7.1000e-004	0.0000	22.2257
Total	**0.1337**	**5.7047**	**1.0148**	**6.6700e-003**	**0.0484**	**6.4800e-003**	**0.0549**	**0.0132**	**6.2000e-003**	**0.0194**	**0.0000**	**655.1140**	**655.1140**	**0.1199**	**0.0000**	**658.1118**

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					0.3356	0.0000	0.3356	0.1711	0.0000	0.1711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8463	9.4194	6.7559	0.0111		0.4269	0.4269		0.3928	0.3928	0.0000	995.0047	995.0047	0.3148	0.0000	1,002.8750
Total	**0.8463**	**9.4194**	**6.7559**	**0.0111**	**0.3356**	**0.4269**	**0.7625**	**0.1711**	**0.3928**	**0.5639**	**0.0000**	**995.0047**	**995.0047**	**0.3148**	**0.0000**	**1,002.8750**

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	0.1220	5.6957	0.9280	6.4200e-003	0.0246	6.3100e-003	0.0309	6.8600e-003	6.0400e-003	0.0129	0.0000	632.9061	632.9061	0.1192	0.0000	635.8861
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	0.0117	8.9800e-003	0.0868	2.5000e-004	0.0238	1.7000e-004	0.0240	6.3200e-003	1.6000e-004	6.4800e-003	0.0000	22.2079	22.2079	7.1000e-004	0.0000	22.2257
Total	**0.1337**	**5.7047**	**1.0148**	**6.6700e-003**	**0.0484**	**6.4800e-003**	**0.0549**	**0.0132**	**6.2000e-003**	**0.0194**	**0.0000**	**655.1140**	**655.1140**	**0.1199**	**0.0000**	**658.1118**

3.3 Utilities - 2019

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	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8312	164.8312	0.0522	0.0000	166.1350
Total	**0.1298**	**1.2685**	**1.2520**	**1.8300e-003**		**0.0776**	**0.0776**		**0.0714**	**0.0714**	**0.0000**	**164.8312**	**164.8312**	**0.0522**	**0.0000**	**166.1350**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154
Total	**4.2200e-003**	**3.2400e-003**	**0.0313**	**9.0000e-005**	**8.5800e-003**	**6.0000e-005**	**8.6400e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**8.0089**	**8.0089**	**2.6000e-004**	**0.0000**	**8.0154**

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	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8310	164.8310	0.0522	0.0000	166.1348
Total	**0.1298**	**1.2685**	**1.2520**	**1.8300e-003**		**0.0776**	**0.0776**		**0.0714**	**0.0714**	**0.0000**	**164.8310**	**164.8310**	**0.0522**	**0.0000**	**166.1348**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154
Total	**4.2200e-003**	**3.2400e-003**	**0.0313**	**9.0000e-005**	**8.5800e-003**	**6.0000e-005**	**8.6400e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**8.0089**	**8.0089**	**2.6000e-004**	**0.0000**	**8.0154**

3.4 Building Construction - 2019

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	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3876	510.3876	0.1242	0.0000	513.4921
Total	**0.5127**	**4.5704**	**3.7322**	**5.8400e-003**		**0.2801**	**0.2801**		**0.2634**	**0.2634**	**0.0000**	**510.3876**	**510.3876**	**0.1242**	**0.0000**	**513.4921**

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	0.0368	0.9851	0.2646	2.1400e-003	0.0521	6.8200e-003	0.0589	0.0150	6.5200e-003	0.0216	0.0000	208.5041	208.5041	0.0167	0.0000	208.9224
Worker	0.0877	0.0673	0.6506	1.8400e-003	0.1783	1.3000e-003	0.1796	0.0474	1.2000e-003	0.0486	0.0000	166.4357	166.4357	5.3500e-003	0.0000	166.5695
Total	**0.1244**	**1.0523**	**0.9153**	**3.9800e-003**	**0.2304**	**8.1200e-003**	**0.2385**	**0.0624**	**7.7200e-003**	**0.0701**	**0.0000**	**374.9398**	**374.9398**	**0.0221**	**0.0000**	**375.4919**

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	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3870	510.3870	0.1242	0.0000	513.4915
Total	**0.5127**	**4.5704**	**3.7322**	**5.8400e-003**		**0.2801**	**0.2801**		**0.2634**	**0.2634**	**0.0000**	**510.3870**	**510.3870**	**0.1242**	**0.0000**	**513.4915**

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	0.0368	0.9851	0.2646	2.1400e-003	0.0521	6.8200e-003	0.0589	0.0150	6.5200e-003	0.0216	0.0000	208.5041	208.5041	0.0167	0.0000	208.9224
Worker	0.0877	0.0673	0.6506	1.8400e-003	0.1783	1.3000e-003	0.1796	0.0474	1.2000e-003	0.0486	0.0000	166.4357	166.4357	5.3500e-003	0.0000	166.5695
Total	**0.1244**	**1.0523**	**0.9153**	**3.9800e-003**	**0.2304**	**8.1200e-003**	**0.2385**	**0.0624**	**7.7200e-003**	**0.0701**	**0.0000**	**374.9398**	**374.9398**	**0.0221**	**0.0000**	**375.4919**

3.5 Paving - 2019

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	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5456	325.5456	0.0979	0.0000	327.9920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2500**	**2.4744**	**2.3630**	**3.7300e-003**		**0.1350**	**0.1350**		**0.1249**	**0.1249**	**0.0000**	**325.5456**	**325.5456**	**0.0979**	**0.0000**	**327.9920**

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	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321

Total	**7.8100e-003**	**5.9900e-003**	**0.0579**	**1.6000e-004**	**0.0159**	**1.2000e-004**	**0.0160**	**4.2200e-003**	**1.1000e-004**	**4.3300e-003**	**0.0000**	**14.8202**	**14.8202**	**4.8000e-004**	**0.0000**	**14.8321**

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	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5452	325.5452	0.0979	0.0000	327.9916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2500**	**2.4744**	**2.3630**	**3.7300e-003**		**0.1350**	**0.1350**		**0.1249**	**0.1249**	**0.0000**	**325.5452**	**325.5452**	**0.0979**	**0.0000**	**327.9916**

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	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321
Total	**7.8100e-003**	**5.9900e-003**	**0.0579**	**1.6000e-004**	**0.0159**	**1.2000e-004**	**0.0160**	**4.2200e-003**	**1.1000e-004**	**4.3300e-003**	**0.0000**	**14.8202**	**14.8202**	**4.8000e-004**	**0.0000**	**14.8321**

3.6 Architectural Coating - 2019

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	1.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7030	33.7030	2.8500e-003	0.0000	33.7741
Total	**1.2004**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7030**	**33.7030**	**2.8500e-003**	**0.0000**	**33.7741**

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	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762
Total	**0.0104**	**7.9900e-003**	**0.0772**	**2.2000e-004**	**0.0212**	**1.5000e-004**	**0.0213**	**5.6300e-003**	**1.4000e-004**	**5.7700e-003**	**0.0000**	**19.7603**	**19.7603**	**6.4000e-004**	**0.0000**	**19.7762**

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	1.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7029	33.7029	2.8500e-003	0.0000	33.7741
Total	**1.2004**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7029**	**33.7029**	**2.8500e-003**	**0.0000**	**33.7741**

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	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762
Total	**0.0104**	**7.9900e-003**	**0.0772**	**2.2000e-004**	**0.0212**	**1.5000e-004**	**0.0213**	**5.6300e-003**	**1.4000e-004**	**5.7700e-003**	**0.0000**	**19.7603**	**19.7603**	**6.4000e-004**	**0.0000**	**19.7762**

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	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	6.80	81.90	60.26	53,732	53,732
Single Family Housing	961.52	1,000.91	870.62	2,724,420	2,724,420
Total	968.32	1,082.81	930.88	2,778,153	2,778,153

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
NaturalGas Unmitigated	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986

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					
City Park	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
Single Family Housing	2.36208e+006	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Total		**0.0127**	**0.1088**	**0.0463**	**6.9000e-004**		**8.8000e-003**	**8.8000e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**126.0495**	**126.0495**	**2.4200e-003**	**2.3100e-003**	**126.7986**

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					
City Park	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
Single Family Housing	2.36208e+006	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Total		**0.0127**	**0.1088**	**0.0463**	**6.9000e-004**		**8.8000e-003**	**8.8000e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**126.0495**	**126.0495**	**2.4200e-003**	**2.3100e-003**	**126.7986**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	817684	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	817684	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Unmitigated	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3374	0.1238	7.8228	0.0142		1.0968	1.0968		1.0968	1.0968	104.3287	43.7540	148.0827	0.0963	8.2100e-003	152.9351
Landscaping	0.0224	8.6200e-003	0.7480	4.0000e-005		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	1.2251	1.2251	1.1700e-003	0.0000	1.2543
Total	**7.6822**	**0.1324**	**8.5708**	**0.0142**		**1.1010**	**1.1010**		**1.1010**	**1.1010**	**104.3287**	**44.9790**	**149.3077**	**0.0975**	**8.2100e-003**	**154.1893**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3374	0.1238	7.8228	0.0142		1.0968	1.0968		1.0968	1.0968	104.3287	43.7540	148.0827	0.0963	8.2100e-003	152.9351
Landscaping	0.0224	8.6200e-003	0.7480	4.0000e-005		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	1.2251	1.2251	1.1700e-003	0.0000	1.2543
Total	**7.6822**	**0.1324**	**8.5708**	**0.0142**		**1.1010**	**1.1010**		**1.1010**	**1.1010**	**104.3287**	**44.9790**	**149.3077**	**0.0975**	**8.2100e-003**	**154.1893**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.0877	0.2144	5.0600e-003	8.9572
Unmitigated	2.0877	0.2144	5.0600e-003	8.9572

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 4.28933	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.58056 / 4.14861	2.0877	0.2144	5.0600e-003	8.9572
Total		**2.0877**	**0.2144**	**5.0600e-003**	**8.9572**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.28933	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.58056 / 4.14861	2.0877	0.2144	5.0600e-003	8.9572
Total		**2.0877**	**0.2144**	**5.0600e-003**	**8.9572**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	24.1153	1.4252	0.0000	59.7447

Unmitigated	24.1153	1.4252	0.0000	59.7447

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.31	0.0629	3.7200e-003	0.0000	0.1559
Single Family Housing	118.49	24.0524	1.4215	0.0000	59.5888
Total		**24.1153**	**1.4252**	**0.0000**	**59.7447**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.31	0.0629	3.7200e-003	0.0000	0.1559
Single Family Housing	118.49	24.0524	1.4215	0.0000	59.5888
Total		**24.1153**	**1.4252**	**0.0000**	**59.7447**

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

Otay Ranch Resort Village Year 1 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.60	Acre	3.60	156,816.00	0
Single Family Housing	101.00	Dwelling Unit	28.30	181,800.00	289

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	78408	0
tblAreaCoating	Area_Nonresidential_Interior	235224	0

tblAreaCoating	Area_Residential_Exterior	122715	0
tblAreaCoating	Area_Residential_Interior	368145	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	500.00	219.00
tblConstructionPhase	NumDays	45.00	129.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblGrading	AcresOfGrading	903.00	41.50
tblGrading	MaterialExported	0.00	438,850.00
tblGrading	MaterialImported	0.00	438,850.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	32.79	28.30
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	46.00
tblTripsAndVMT	WorkerTripNumber	102.00	204.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00

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					
2019	30.5905	310.8850	185.4556	0.4074	16.4359	10.8052	27.2411	7.6389	9.9984	17.6372	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093
Maximum	**30.5905**	**310.8850**	**185.4556**	**0.4074**	**16.4359**	**10.8052**	**27.2411**	**7.6389**	**9.9984**	**17.6372**	**0.0000**	**41,379.9609**	**41,379.9609**	**9.8819**	**0.0000**	**41,627.0093**

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					
2019	30.5905	310.8850	185.4556	0.4074	8.2976	10.8052	19.1028	3.4896	9.9984	13.4880	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093
Maximum	**30.5905**	**310.8850**	**185.4556**	**0.4074**	**8.2976**	**10.8052**	**19.1028**	**3.4896**	**9.9984**	**13.4880**	**0.0000**	**41,379.9609**	**41,379.9609**	**9.8819**	**0.0000**	**41,627.0093**

	ROG	NOx	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**	**49.52**	**0.00**	**29.88**	**54.32**	**0.00**	**23.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Energy	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Mobile	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Total	**162.1347**	**3.7108**	**199.3645**	**0.3499**	**5.5077**	**26.8464**	**32.3541**	**1.3519**	**26.8464**	**28.1983**	**2,804.9448**	**1,952.7045**	**4,757.6493**	**2.6174**	**0.2346**	**4,892.9912**

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	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Energy	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Mobile	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Total	**162.1347**	**3.7108**	**199.3645**	**0.3499**	**5.5077**	**26.8464**	**32.3541**	**1.3519**	**26.8464**	**28.1983**	**2,804.9448**	**1,952.7045**	**4,757.6493**	**2.6174**	**0.2346**	**4,892.9912**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2019	6/30/2019	5	129	
2	Utilities	Trenching	2/1/2019	7/1/2019	5	108	
3	Building Construction	Building Construction	3/1/2019	12/31/2019	5	219	
4	Paving	Paving	7/1/2019	12/31/2019	5	132	
5	Architectural Coating	Architectural Coating	7/1/2019	12/31/2019	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 41.5

Acres of Paving: 0

Residential Indoor: 368,145; Residential Outdoor: 122,715; Non-Residential Indoor: 235,224; Non-Residential Outdoor: 78,408; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	46.00	0.00	109,713.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	204.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2019

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					13.3414	0.0000	13.3414	6.8021	0.0000	6.8021			0.0000			0.0000
Off-Road	13.1215	146.0374	104.7430	0.1717		6.6188	6.6188		6.0893	6.0893		17,004.7485	17,004.7485	5.3801		17,139.2515
Total	**13.1215**	**146.0374**	**104.7430**	**0.1717**	**13.3414**	**6.6188**	**19.9602**	**6.8021**	**6.0893**	**12.8913**		**17,004.7485**	**17,004.7485**	**5.3801**		**17,139.2515**

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	1.7995	89.5412	12.4109	0.1043	0.3891	0.0884	0.4774	0.1082	0.0845	0.1927		11,336.6567	11,336.6567	1.9319		11,384.9544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1806	0.1261	1.4233	4.0200e-003	0.3779	2.6900e-003	0.3806	0.1002	2.4800e-003	0.1027		400.2918	400.2918	0.0128		400.6114
Total	**1.9801**	**89.6672**	**13.8342**	**0.1084**	**0.7670**	**0.0911**	**0.8580**	**0.2084**	**0.0870**	**0.2954**		**11,736.9486**	**11,736.9486**	**1.9447**		**11,785.5658**

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					5.2032	0.0000	5.2032	2.6528	0.0000	2.6528			0.0000			0.0000
Off-Road	13.1215	146.0374	104.7430	0.1717		6.6188	6.6188		6.0893	6.0893	0.0000	17,004.7484	17,004.7484	5.3801		17,139.2515
Total	**13.1215**	**146.0374**	**104.7430**	**0.1717**	**5.2032**	**6.6188**	**11.8219**	**2.6528**	**6.0893**	**8.7421**	**0.0000**	**17,004.7484**	**17,004.7484**	**5.3801**		**17,139.2515**

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	1.7995	89.5412	12.4109	0.1043	0.3891	0.0884	0.4774	0.1082	0.0845	0.1927		11,336.6567	11,336.6567	1.9319		11,384.9544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1806	0.1261	1.4233	4.0200e-003	0.3779	2.6900e-003	0.3806	0.1002	2.4800e-003	0.1027		400.2918	400.2918	0.0128		400.6114
Total	**1.9801**	**89.6672**	**13.8342**	**0.1084**	**0.7670**	**0.0911**	**0.8580**	**0.2084**	**0.0870**	**0.2954**		**11,736.9486**	**11,736.9486**	**1.9447**		**11,785.5658**

3.3 Utilities - 2019

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	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340		3,396.1734	3,396.1734	1.0745		3,423.0362
Total	**2.4259**	**23.7093**	**23.4022**	**0.0343**		**1.4500**	**1.4500**		**1.3340**	**1.3340**		**3,396.1734**	**3,396.1734**	**1.0745**		**3,423.0362**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789
Total	**0.0785**	**0.0548**	**0.6188**	**1.7500e-003**	**0.1643**	**1.1700e-003**	**0.1655**	**0.0436**	**1.0800e-003**	**0.0447**		**174.0399**	**174.0399**	**5.5600e-003**		**174.1789**

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	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340	0.0000	3,396.1734	3,396.1734	1.0745		3,423.0362
Total	**2.4259**	**23.7093**	**23.4022**	**0.0343**		**1.4500**	**1.4500**		**1.3340**	**1.3340**	**0.0000**	**3,396.1734**	**3,396.1734**	**1.0745**		**3,423.0362**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789
Total	**0.0785**	**0.0548**	**0.6188**	**1.7500e-003**	**0.1643**	**1.1700e-003**	**0.1655**	**0.0436**	**1.0800e-003**	**0.0447**		**174.0399**	**174.0399**	**5.5600e-003**		**174.1789**

3.4 Building Construction - 2019

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	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166		5,161.5235	5,161.5235	1.2558		5,192.9191
Total	**4.7032**	**41.9301**	**34.2407**	**0.0536**		**2.5701**	**2.5701**		**2.4166**	**2.4166**		**5,161.5235**	**5,161.5235**	**1.2558**		**5,192.9191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3314	8.9271	2.3047	0.0199	0.4874	0.0621	0.5495	0.1403	0.0594	0.1997		2,131.3198	2,131.3198	0.1646		2,135.4335
Worker	0.8010	0.5590	6.3120	0.0178	1.6758	0.0119	1.6878	0.4445	0.0110	0.4555		1,775.2073	1,775.2073	0.0567		1,776.6244
Total	**1.1324**	**9.4861**	**8.6167**	**0.0377**	**2.1632**	**0.0740**	**2.2373**	**0.5848**	**0.0704**	**0.6552**		**3,906.5270**	**3,906.5270**	**0.2212**		**3,912.0579**

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	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166	0.0000	5,161.5235	5,161.5235	1.2558		5,192.9191
Total	**4.7032**	**41.9301**	**34.2407**	**0.0536**		**2.5701**	**2.5701**		**2.4166**	**2.4166**	**0.0000**	**5,161.5235**	**5,161.5235**	**1.2558**		**5,192.9191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3314	8.9271	2.3047	0.0199	0.4874	0.0621	0.5495	0.1403	0.0594	0.1997		2,131.3198	2,131.3198	0.1646		2,135.4335
Worker	0.8010	0.5590	6.3120	0.0178	1.6758	0.0119	1.6878	0.4445	0.0110	0.4555		1,775.2073	1,775.2073	0.0567		1,776.6244

Total	**1.1324**	**9.4861**	**8.6167**	**0.0377**	**2.1632**	**0.0740**	**2.2373**	**0.5848**	**0.0704**	**0.6552**		**3,906.5270**	**3,906.5270**	**0.2212**		**3,912.0579**

3.5 Paving - 2019

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	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917		5,437.1605	5,437.1605	1.6344		5,478.0194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.7874**	**37.4908**	**35.8026**	**0.0565**		**2.0461**	**2.0461**		**1.8917**	**1.8917**		**5,437.1605**	**5,437.1605**	**1.6344**		**5,478.0194**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683
Total	**0.1178**	**0.0822**	**0.9282**	**2.6200e-003**	**0.2464**	**1.7600e-003**	**0.2482**	**0.0654**	**1.6200e-003**	**0.0670**		**261.0599**	**261.0599**	**8.3400e-003**		**261.2683**

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	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917	0.0000	5,437.1605	5,437.1605	1.6344		5,478.0194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.7874**	**37.4908**	**35.8026**	**0.0565**		**2.0461**	**2.0461**		**1.8917**	**1.8917**	**0.0000**	**5,437.1605**	**5,437.1605**	**1.6344**		**5,478.0194**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683
Total	**0.1178**	**0.0822**	**0.9282**	**2.6200e-003**	**0.2464**	**1.7600e-003**	**0.2482**	**0.0654**	**1.6200e-003**	**0.0670**		**261.0599**	**261.0599**	**8.3400e-003**		**261.2683**

3.6 Architectural Coating - 2019

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	17.6554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5329	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575		562.8961	562.8961	0.0475		564.0847
Total	**18.1883**	**3.6708**	**3.6827**	**5.9400e-003**		**0.2575**	**0.2575**		**0.2575**	**0.2575**		**562.8961**	**562.8961**	**0.0475**		**564.0847**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	**0.1571**	**0.1096**	**1.2377**	**3.4900e-003**	**0.3286**	**2.3400e-003**	**0.3309**	**0.0872**	**2.1600e-003**	**0.0893**		**348.0799**	**348.0799**	**0.0111**		**348.3577**

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	17.6554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5329	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575	0.0000	562.8961	562.8961	0.0475		564.0847
Total	**18.1883**	**3.6708**	**3.6827**	**5.9400e-003**		**0.2575**	**0.2575**		**0.2575**	**0.2575**	**0.0000**	**562.8961**	**562.8961**	**0.0475**		**564.0847**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	**0.1571**	**0.1096**	**1.2377**	**3.4900e-003**	**0.3286**	**2.3400e-003**	**0.3309**	**0.0872**	**2.1600e-003**	**0.0893**		**348.0799**	**348.0799**	**0.0111**		**348.3577**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	6.80	81.90	60.26	53,732	53,732
Single Family Housing	961.52	1,000.91	870.62	2,724,420	2,724,420
Total	968.32	1,082.81	930.88	2,778,153	2,778,153

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
NaturalGas Unmitigated	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	6471.45	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Total		**0.0698**	**0.5964**	**0.2538**	**3.8100e-003**		**0.0482**	**0.0482**		**0.0482**	**0.0482**		**761.3470**	**761.3470**	**0.0146**	**0.0140**	**765.8713**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	6.47145	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Total		**0.0698**	**0.5964**	**0.2538**	**3.8100e-003**		**0.0482**	**0.0482**		**0.0482**	**0.0482**		**761.3470**	**761.3470**	**0.0146**	**0.0140**	**765.8713**

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	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Unmitigated	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	154.5699	3.0186	190.7997	0.3457		26.7519	26.7519		26.7519	26.7519	2,804.9448	1,176.3529	3,981.2978	2.5885	0.2206	4,111.7580
Landscaping	0.2486	0.0958	8.3110	4.4000e-004		0.0462	0.0462		0.0462	0.0462		15.0046	15.0046	0.0143		15.3620
Total	**162.0649**	**3.1144**	**199.1107**	**0.3461**		**26.7982**	**26.7982**		**26.7982**	**26.7982**	**2,804.9448**	**1,191.3575**	**3,996.3023**	**2.6028**	**0.2206**	**4,127.1200**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	154.5699	3.0186	190.7997	0.3457		26.7519	26.7519		26.7519	26.7519	2,804.9448	1,176.3529	3,981.2978	2.5885	0.2206	4,111.7580
Landscaping	0.2486	0.0958	8.3110	4.4000e-004		0.0462	0.0462		0.0462	0.0462		15.0046	15.0046	0.0143		15.3620
Total	**162.0649**	**3.1144**	**199.1107**	**0.3461**		**26.7982**	**26.7982**		**26.7982**	**26.7982**	**2,804.9448**	**1,191.3575**	**3,996.3023**	**2.6028**	**0.2206**	**4,127.1200**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 2 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.90	Acre	1.90	82,764.00	0
Single Family Housing	210.00	Dwelling Unit	55.20	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	41382	0
tblAreaCoating	Area_Nonresidential_Interior	124146	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	219.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblGrading	AcresOfGrading	910.00	78.90
tblGrading	MaterialExported	0.00	834,626.00
tblGrading	MaterialImported	0.00	834,626.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	55.20
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	110.00	220.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	22.00	44.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	3.6844	25.7324	16.4964	0.0376	1.1978	0.8519	2.0497	0.5357	0.7909	1.3266	0.0000	3,419.5986	3,419.5986	0.7834	0.0000	3,439.1841
Maximum	**3.6844**	**25.7324**	**16.4964**	**0.0376**	**1.1978**	**0.8519**	**2.0497**	**0.5357**	**0.7909**	**1.3266**	**0.0000**	**3,419.5986**	**3,419.5986**	**0.7834**	**0.0000**	**3,439.1841**

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					
2020	3.6844	25.7324	16.4964	0.0376	0.6948	0.8519	1.5466	0.2704	0.7909	1.0613	0.0000	3,419.5962	3,419.5962	0.7834	0.0000	3,439.1817
Maximum	**3.6844**	**25.7324**	**16.4964**	**0.0376**	**0.6948**	**0.8519**	**1.5466**	**0.2704**	**0.7909**	**1.0613**	**0.0000**	**3,419.5962**	**3,419.5962**	**0.7834**	**0.0000**	**3,439.1817**

	ROG	NOx	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**	**42.00**	**0.00**	**24.54**	**49.52**	**0.00**	**20.00**	**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)
		Highest		

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	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0515	0.0000	50.0515	2.9580	0.0000	124.0004
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.0517**	**0.5020**	**17.9365**	**0.0310**	**1.8301**	**2.3074**	**4.1375**	**0.4492**	**2.3074**	**2.7566**	**271.3134**	**355.6038**	**626.9172**	**3.6116**	**0.0324**	**726.8598**

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	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0515	0.0000	50.0515	2.9580	0.0000	124.0004
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.0517**	**0.5020**	**17.9365**	**0.0310**	**1.8301**	**2.3074**	**4.1375**	**0.4492**	**2.3074**	**2.7566**	**271.3134**	**355.6038**	**626.9172**	**3.6116**	**0.0324**	**726.8598**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	6/30/2020	5	130	
2	Utilities	Trenching	2/1/2020	7/1/2020	5	110	
3	Building Construction	Building Construction	3/1/2020	12/31/2020	5	219	
4	Paving	Paving	7/1/2020	12/31/2020	5	131	
5	Architectural Coating	Architectural Coating	7/1/2020	12/30/2020	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.9

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 124,146; Non-Residential Outdoor: 41,382; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	165,047.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	220.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2020

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					0.8247	0.0000	0.8247	0.4349	0.0000	0.4349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7910	8.6092	6.4745	0.0112		0.3861	0.3861		0.3552	0.3552	0.0000	980.8648	980.8648	0.3172	0.0000	988.7956
Total	**0.7910**	**8.6092**	**6.4745**	**0.0112**	**0.8247**	**0.3861**	**1.2108**	**0.4349**	**0.3552**	**0.7900**	**0.0000**	**980.8648**	**980.8648**	**0.3172**	**0.0000**	**988.7956**

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	0.1632	8.2539	1.2950	9.6600e-003	0.0370	6.7400e-003	0.0438	0.0103	6.4500e-003	0.0168	0.0000	953.8660	953.8660	0.1664	0.0000	958.0257
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	0.0134	9.9300e-003	0.0974	2.9000e-004	0.0292	2.1000e-004	0.0294	7.7600e-003	1.9000e-004	7.9500e-003	0.0000	26.3855	26.3855	7.9000e-004	0.0000	26.4053
Total	**0.1766**	**8.2639**	**1.3924**	**9.9500e-003**	**0.0662**	**6.9500e-003**	**0.0732**	**0.0181**	**6.6400e-003**	**0.0247**	**0.0000**	**980.2514**	**980.2514**	**0.1672**	**0.0000**	**984.4310**

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					0.3216	0.0000	0.3216	0.1696	0.0000	0.1696	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7910	8.6092	6.4745	0.0112		0.3861	0.3861		0.3552	0.3552	0.0000	980.8636	980.8636	0.3172	0.0000	988.7944
Total	**0.7910**	**8.6092**	**6.4745**	**0.0112**	**0.3216**	**0.3861**	**0.7077**	**0.1696**	**0.3552**	**0.5248**	**0.0000**	**980.8636**	**980.8636**	**0.3172**	**0.0000**	**988.7944**

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	0.1632	8.2539	1.2950	9.6600e-003	0.0370	6.7400e-003	0.0438	0.0103	6.4500e-003	0.0168	0.0000	953.8660	953.8660	0.1664	0.0000	958.0257
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	0.0134	9.9300e-003	0.0974	2.9000e-004	0.0292	2.1000e-004	0.0294	7.7600e-003	1.9000e-004	7.9500e-003	0.0000	26.3855	26.3855	7.9000e-004	0.0000	26.4053
Total	**0.1766**	**8.2639**	**1.3924**	**9.9500e-003**	**0.0662**	**6.9500e-003**	**0.0732**	**0.0181**	**6.6400e-003**	**0.0247**	**0.0000**	**980.2514**	**980.2514**	**0.1672**	**0.0000**	**984.4310**

3.3 Utilities - 2020

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	0.1234	1.1822	1.2620	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7890	162.7890	0.0527	0.0000	164.1052
Total	**0.1234**	**1.1822**	**1.2620**	**1.8500e-003**		**0.0717**	**0.0717**		**0.0660**	**0.0660**	**0.0000**	**162.7890**	**162.7890**	**0.0527**	**0.0000**	**164.1052**

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	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345
Total	**3.9800e-003**	**2.9500e-003**	**0.0289**	**9.0000e-005**	**8.6600e-003**	**6.0000e-005**	**8.7200e-003**	**2.3000e-003**	**6.0000e-005**	**2.3600e-003**	**0.0000**	**7.8287**	**7.8287**	**2.4000e-004**	**0.0000**	**7.8345**

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	0.1234	1.1822	1.2619	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7888	162.7888	0.0527	0.0000	164.1050
Total	**0.1234**	**1.1822**	**1.2619**	**1.8500e-003**		**0.0717**	**0.0717**		**0.0660**	**0.0660**	**0.0000**	**162.7888**	**162.7888**	**0.0527**	**0.0000**	**164.1050**

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	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345
Total	**3.9800e-003**	**2.9500e-003**	**0.0289**	**9.0000e-005**	**8.6600e-003**	**6.0000e-005**	**8.7200e-003**	**2.3000e-003**	**6.0000e-005**	**2.3600e-003**	**0.0000**	**7.8287**	**7.8287**	**2.4000e-004**	**0.0000**	**7.8345**

3.4 Building Construction - 2020

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	0.4624	4.1794	3.6811	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1233	505.1233	0.1231	0.0000	508.1999
Total	**0.4624**	**4.1794**	**3.6811**	**5.8700e-003**		**0.2437**	**0.2437**		**0.2292**	**0.2292**	**0.0000**	**505.1233**	**505.1233**	**0.1231**	**0.0000**	**508.1999**

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	0.0300	0.8987	0.2388	2.1400e-003	0.0523	4.3800e-003	0.0567	0.0151	4.1900e-003	0.0193	0.0000	208.0284	208.0284	0.0160	0.0000	208.4270
Worker	0.0888	0.0657	0.6446	1.9300e-003	0.1932	1.3900e-003	0.1946	0.0513	1.2800e-003	0.0526	0.0000	174.6225	174.6225	5.2400e-003	0.0000	174.7536
Total	**0.1188**	**0.9644**	**0.8834**	**4.0700e-003**	**0.2455**	**5.7700e-003**	**0.2513**	**0.0664**	**5.4700e-003**	**0.0719**	**0.0000**	**382.6509**	**382.6509**	**0.0212**	**0.0000**	**383.1806**

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	0.4624	4.1794	3.6810	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1227	505.1227	0.1231	0.0000	508.1993
Total	**0.4624**	**4.1794**	**3.6810**	**5.8700e-003**		**0.2437**	**0.2437**		**0.2292**	**0.2292**	**0.0000**	**505.1227**	**505.1227**	**0.1231**	**0.0000**	**508.1993**

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	0.0300	0.8987	0.2388	2.1400e-003	0.0523	4.3800e-003	0.0567	0.0151	4.1900e-003	0.0193	0.0000	208.0284	208.0284	0.0160	0.0000	208.4270
Worker	0.0888	0.0657	0.6446	1.9300e-003	0.1932	1.3900e-003	0.1946	0.0513	1.2800e-003	0.0526	0.0000	174.6225	174.6225	5.2400e-003	0.0000	174.7536
Total	**0.1188**	**0.9644**	**0.8834**	**4.0700e-003**	**0.2455**	**5.7700e-003**	**0.2513**	**0.0664**	**5.4700e-003**	**0.0719**	**0.0000**	**382.6509**	**382.6509**	**0.0212**	**0.0000**	**383.1806**

3.5 Paving - 2020

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	0.2343	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9607	318.9607	0.0978	0.0000	321.4068
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2343**	**2.2918**	**2.3583**	**3.7300e-003**		**0.1227**	**0.1227**		**0.1135**	**0.1135**	**0.0000**	**318.9607**	**318.9607**	**0.0978**	**0.0000**	**321.4068**

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	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115

Total	**0.0136**	**0.0101**	**0.0989**	**3.0000e-004**	**0.0296**	**2.1000e-004**	**0.0299**	**7.8800e-003**	**2.0000e-004**	**8.0700e-003**	**0.0000**	**26.7914**	**26.7914**	**8.0000e-004**	**0.0000**	**26.8115**

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	0.2342	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9603	318.9603	0.0978	0.0000	321.4064
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2342**	**2.2918**	**2.3583**	**3.7300e-003**		**0.1227**	**0.1227**		**0.1135**	**0.1135**	**0.0000**	**318.9603**	**318.9603**	**0.0978**	**0.0000**	**321.4064**

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	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115
Total	**0.0136**	**0.0101**	**0.0989**	**3.0000e-004**	**0.0296**	**2.1000e-004**	**0.0299**	**7.8800e-003**	**2.0000e-004**	**8.0700e-003**	**0.0000**	**26.7914**	**26.7914**	**8.0000e-004**	**0.0000**	**26.8115**

3.6 Architectural Coating - 2020

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	1.7180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	**1.7498**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5124**

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	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066
Total	**0.0106**	**7.8700e-003**	**0.0771**	**2.3000e-004**	**0.0231**	**1.7000e-004**	**0.0233**	**6.1400e-003**	**1.5000e-004**	**6.2900e-003**	**0.0000**	**20.8909**	**20.8909**	**6.3000e-004**	**0.0000**	**20.9066**

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	1.7180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	**1.7498**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5123**

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	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066
Total	**0.0106**	**7.8700e-003**	**0.0771**	**2.3000e-004**	**0.0231**	**1.7000e-004**	**0.0233**	**6.1400e-003**	**1.5000e-004**	**6.2900e-003**	**0.0000**	**20.8909**	**20.8909**	**6.3000e-004**	**0.0000**	**20.9066**

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	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.59	43.23	31.81	28,359	28,359
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.79	2,124.33	1,842.01	5,692,995	5,692,995

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Unmitigated	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0490	0.0184	1.5750	8.0000e-005		8.5500e-003	8.5500e-003		8.5500e-003	8.5500e-003	0.0000	2.5471	2.5471	2.5600e-003	0.0000	2.6110
Total	**15.0253**	**0.2757**	**17.8402**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5948**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0490	0.0184	1.5750	8.0000e-005		8.5500e-003	8.5500e-003		8.5500e-003	8.5500e-003	0.0000	2.5471	2.5471	2.5600e-003	0.0000	2.6110
Total	**15.0253**	**0.2757**	**17.8402**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5948**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.26381	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.26381	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0515	2.9580	0.0000	124.0004

Unmitigated	50.0515	2.9580	0.0000	124.0004

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.16	0.0325	1.9200e-003	0.0000	0.0805
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0515**	**2.9580**	**0.0000**	**124.0004**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.16	0.0325	1.9200e-003	0.0000	0.0805
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0515**	**2.9580**	**0.0000**	**124.0004**

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

Otay Ranch Resort Village Year 2 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.90	Acre	1.90	82,764.00	0
Single Family Housing	210.00	Dwelling Unit	55.20	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	41382	0
tblAreaCoating	Area_Nonresidential_Interior	124146	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	219.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblGrading	AcresOfGrading	910.00	78.90
tblGrading	MaterialExported	0.00	834,626.00
tblGrading	MaterialImported	0.00	834,626.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	55.20
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	110.00	220.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	22.00	44.00

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					
2020	38.2870	330.0950	184.2826	0.4601	16.1876	9.6443	25.8319	7.6367	8.9230	16.5597	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945
Maximum	**38.2870**	**330.0950**	**184.2826**	**0.4601**	**16.1876**	**9.6443**	**25.8319**	**7.6367**	**8.9230**	**16.5597**	**0.0000**	**46,613.3912**	**46,613.3912**	**10.6001**	**0.0000**	**46,878.3945**

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					
2020	38.2870	330.0950	184.2826	0.4601	8.4480	9.6443	18.0923	3.5559	8.9230	12.4788	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945
Maximum	**38.2870**	**330.0950**	**184.2826**	**0.4601**	**8.4480**	**9.6443**	**18.0923**	**3.5559**	**8.9230**	**12.4788**	**0.0000**	**46,613.3912**	**46,613.3912**	**10.6001**	**0.0000**	**46,878.3945**

	ROG	NOx	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**	**47.81**	**0.00**	**29.96**	**53.44**	**0.00**	**24.64**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Total	**331.9333**	**7.7202**	**414.7400**	**0.7276**	**10.9591**	**55.8181**	**66.7772**	**2.6900**	**55.8181**	**58.5081**	**5,832.0635**	**4,060.0774**	**9,892.1408**	**5.4437**	**0.4878**	**10,173.5845**

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	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Total	**331.9333**	**7.7202**	**414.7400**	**0.7276**	**10.9591**	**55.8181**	**66.7772**	**2.6900**	**55.8181**	**58.5081**	**5,832.0635**	**4,060.0774**	**9,892.1408**	**5.4437**	**0.4878**	**10,173.5845**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	6/30/2020	5	130	
2	Utilities	Trenching	2/1/2020	7/1/2020	5	110	
3	Building Construction	Building Construction	3/1/2020	12/31/2020	5	219	
4	Paving	Paving	7/1/2020	12/31/2020	5	131	
5	Architectural Coating	Architectural Coating	7/1/2020	12/30/2020	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.9

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 124,146; Non-Residential Outdoor: 41,382; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	165,047.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	220.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2020

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					12.6878	0.0000	12.6878	6.6900	0.0000	6.6900			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642		16,634.1282	16,634.1282	5.3798		16,768.6236
Total	**12.1687**	**132.4499**	**99.6082**	**0.1717**	**12.6878**	**5.9393**	**18.6272**	**6.6900**	**5.4642**	**12.1542**		**16,634.1282**	**16,634.1282**	**5.3798**		**16,768.6236**

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	2.3871	128.7339	17.2295	0.1557	0.5808	0.0939	0.6747	0.1615	0.0898	0.2513		16,959.6439	16,959.6439	2.6761		17,026.5451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	**2.5926**	**128.8723**	**18.8168**	**0.1605**	**1.0408**	**0.0971**	**1.1379**	**0.2835**	**0.0928**	**0.3763**		**17,431.5823**	**17,431.5823**	**2.6901**		**17,498.8358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9483	0.0000	4.9483	2.6091	0.0000	2.6091			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642	0.0000	16,634.1282	16,634.1282	5.3798		16,768.6236
Total	**12.1687**	**132.4499**	**99.6082**	**0.1717**	**4.9483**	**5.9393**	**10.8876**	**2.6091**	**5.4642**	**8.0733**	**0.0000**	**16,634.1282**	**16,634.1282**	**5.3798**		**16,768.6236**

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	2.3871	128.7339	17.2295	0.1557	0.5808	0.0939	0.6747	0.1615	0.0898	0.2513		16,959.6439	16,959.6439	2.6761		17,026.5451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	**2.5926**	**128.8723**	**18.8168**	**0.1605**	**1.0408**	**0.0971**	**1.1379**	**0.2835**	**0.0928**	**0.3763**		**17,431.5823**	**17,431.5823**	**2.6901**		**17,498.8358**

3.3 Utilities - 2020

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	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223		3,323.0394	3,323.0394	1.0747		3,349.9078
Total	**2.2848**	**21.8930**	**23.3694**	**0.0343**		**1.3286**	**1.3286**		**1.2223**	**1.2223**		**3,323.0394**	**3,323.0394**	**1.0747**		**3,349.9078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752
Total	**0.0734**	**0.0495**	**0.5669**	**1.6900e-003**	**0.1643**	**1.1500e-003**	**0.1655**	**0.0436**	**1.0600e-003**	**0.0446**		**168.5494**	**168.5494**	**5.0300e-003**		**168.6752**

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	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223	0.0000	3,323.0394	3,323.0394	1.0747		3,349.9078
Total	**2.2848**	**21.8930**	**23.3694**	**0.0343**		**1.3286**	**1.3286**		**1.2223**	**1.2223**	**0.0000**	**3,323.0394**	**3,323.0394**	**1.0747**		**3,349.9078**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752
Total	**0.0734**	**0.0495**	**0.5669**	**1.6900e-003**	**0.1643**	**1.1500e-003**	**0.1655**	**0.0436**	**1.0600e-003**	**0.0446**		**168.5494**	**168.5494**	**5.0300e-003**		**168.6752**

3.4 Building Construction - 2020

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	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929		5,084.9598	5,084.9598	1.2389		5,115.9315
Total	**4.2225**	**38.1679**	**33.6169**	**0.0536**		**2.2257**	**2.2257**		**2.0929**	**2.0929**		**5,084.9598**	**5,084.9598**	**1.2389**		**5,115.9315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2691	8.1186	2.0683	0.0197	0.4874	0.0397	0.5271	0.1403	0.0380	0.1783		2,117.0886	2,117.0886	0.1562		2,120.9930
Worker	0.8073	0.5439	6.2361	0.0186	1.8073	0.0127	1.8199	0.4794	0.0117	0.4911		1,854.0435	1,854.0435	0.0554		1,855.4276
Total	**1.0764**	**8.6625**	**8.3044**	**0.0383**	**2.2947**	**0.0524**	**2.3471**	**0.6197**	**0.0497**	**0.6694**		**3,971.1321**	**3,971.1321**	**0.2115**		**3,976.4206**

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	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929	0.0000	5,084.9598	5,084.9598	1.2389		5,115.9315
Total	**4.2225**	**38.1679**	**33.6169**	**0.0536**		**2.2257**	**2.2257**		**2.0929**	**2.0929**	**0.0000**	**5,084.9598**	**5,084.9598**	**1.2389**		**5,115.9315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2691	8.1186	2.0683	0.0197	0.4874	0.0397	0.5271	0.1403	0.0380	0.1783		2,117.0886	2,117.0886	0.1562		2,120.9930
Worker	0.8073	0.5439	6.2361	0.0186	1.8073	0.0127	1.8199	0.4794	0.0117	0.4911		1,854.0435	1,854.0435	0.0554		1,855.4276

Total	**1.0764**	**8.6625**	**8.3044**	**0.0383**	**2.2947**	**0.0524**	**2.3471**	**0.6197**	**0.0497**	**0.6694**		**3,971.1321**	**3,971.1321**	**0.2115**		**3,976.4206**

3.5 Paving - 2020

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	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193		5,327.1818	5,327.1818	1.6342		5,368.0360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5492**	**34.7248**	**35.7317**	**0.0565**		**1.8588**	**1.8588**		**1.7193**	**1.7193**		**5,327.1818**	**5,327.1818**	**1.6342**		**5,368.0360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	**0.2055**	**0.1385**	**1.5874**	**4.7400e-003**	**0.4600**	**3.2300e-003**	**0.4633**	**0.1220**	**2.9700e-003**	**0.1250**		**471.9384**	**471.9384**	**0.0141**		**472.2907**

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	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193	0.0000	5,327.1818	5,327.1818	1.6342		5,368.0360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5492**	**34.7248**	**35.7317**	**0.0565**		**1.8588**	**1.8588**		**1.7193**	**1.7193**	**0.0000**	**5,327.1818**	**5,327.1818**	**1.6342**		**5,368.0360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	**0.2055**	**0.1385**	**1.5874**	**4.7400e-003**	**0.4600**	**3.2300e-003**	**0.4633**	**0.1220**	**2.9700e-003**	**0.1250**		**471.9384**	**471.9384**	**0.0141**		**472.2907**

3.6 Architectural Coating - 2020

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	26.2295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219		562.8961	562.8961	0.0436		563.9856
Total	**26.7139**	**3.3677**	**3.6628**	**5.9400e-003**		**0.2219**	**0.2219**		**0.2219**	**0.2219**		**562.8961**	**562.8961**	**0.0436**		**563.9856**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855
Total	**0.1615**	**0.1088**	**1.2472**	**3.7200e-003**	**0.3615**	**2.5400e-003**	**0.3640**	**0.0959**	**2.3400e-003**	**0.0982**		**370.8087**	**370.8087**	**0.0111**		**371.0855**

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	26.2295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219	0.0000	562.8961	562.8961	0.0436		563.9856
Total	**26.7139**	**3.3677**	**3.6628**	**5.9400e-003**		**0.2219**	**0.2219**		**0.2219**	**0.2219**	**0.0000**	**562.8961**	**562.8961**	**0.0436**		**563.9856**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855
Total	**0.1615**	**0.1088**	**1.2472**	**3.7200e-003**	**0.3615**	**2.5400e-003**	**0.3640**	**0.0959**	**2.3400e-003**	**0.0982**		**370.8087**	**370.8087**	**0.0111**		**371.0855**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.59	43.23	31.81	28,359	28,359
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.79	2,124.33	1,842.01	5,692,995	5,692,995

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

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	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Unmitigated	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.8604					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5449	0.2040	17.5000	9.1000e-004		0.0950	0.0950		0.0950	0.0950		31.1964	31.1964	0.0313		31.9792
Total	**331.7882**	**6.4802**	**414.2123**	**0.7196**		**55.7179**	**55.7179**		**55.7179**	**55.7179**	**5,832.0635**	**2,477.0788**	**8,309.1422**	**5.4133**	**0.4587**	**8,581.1790**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.8604					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5449	0.2040	17.5000	9.1000e-004		0.0950	0.0950		0.0950	0.0950		31.1964	31.1964	0.0313		31.9792
Total	**331.7882**	**6.4802**	**414.2123**	**0.7196**		**55.7179**	**55.7179**		**55.7179**	**55.7179**	**5,832.0635**	**2,477.0788**	**8,309.1422**	**5.4133**	**0.4587**	**8,581.1790**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 3 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2018
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6460e-003	0.00
tblFleetMix	LHD2	5.6460e-003	0.00
tblFleetMix	MCY	6.3850e-003	0.00
tblFleetMix	MCY	6.3850e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.4520e-003	0.00
tblFleetMix	MH	1.4520e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8710e-003	0.00
tblFleetMix	OBUS	1.8710e-003	0.00
tblFleetMix	SBUS	7.3900e-004	0.00
tblFleetMix	SBUS	7.3900e-004	0.00
tblFleetMix	UBUS	2.1730e-003	0.00
tblFleetMix	UBUS	2.1730e-003	0.00
tblGrading	AcresOfGrading	910.00	79.50
tblGrading	MaterialExported	0.00	840,973.00
tblGrading	MaterialImported	0.00	840,973.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	WorkerTripNumber	55.00	28.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	55.00	28.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	3.5823	25.4597	15.7986	0.0377	1.1644	0.7466	1.9110	0.5113	0.6930	1.2043	0.0000	3,439.7366	3,439.7366	0.8020	0.0000	3,459.7876
Maximum	**3.5823**	**25.4597**	**15.7986**	**0.0377**	**1.1644**	**0.7466**	**1.9110**	**0.5113**	**0.6930**	**1.2043**	**0.0000**	**3,439.7366**	**3,439.7366**	**0.8020**	**0.0000**	**3,459.7876**

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	3.5823	25.4597	15.7986	0.0377	0.5935	0.7466	1.3401	0.2372	0.6930	0.9302	0.0000	3,439.7342	3,439.7342	0.8020	0.0000	3,459.7852
Maximum	**3.5823**	**25.4597**	**15.7986**	**0.0377**	**0.5935**	**0.7466**	**1.3401**	**0.2372**	**0.6930**	**0.9302**	**0.0000**	**3,439.7342**	**3,439.7342**	**0.8020**	**0.0000**	**3,459.7852**

	ROG	NOx	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**	**49.03**	**0.00**	**29.88**	**53.60**	**0.00**	**22.76**	**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)
		Highest		

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	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.1362**	**0.5019**	**17.9318**	**0.0310**	**1.8325**	**2.3074**	**4.1400**	**0.4498**	**2.3074**	**2.7572**	**271.3235**	**355.6038**	**626.9273**	**3.6121**	**0.0324**	**726.8841**

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	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.0458	0.0105	18.6239
Total	**15.1362**	**0.5019**	**17.9318**	**0.0310**	**1.8325**	**2.3074**	**4.1400**	**0.4498**	**2.3074**	**2.7572**	**271.3235**	**355.6038**	**626.9273**	**3.6121**	**0.0324**	**726.8841**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2021	6/30/2021	5	130	
2	Utilities	Trenching	2/1/2021	7/1/2021	5	108	
3	Building Construction	Building Construction	3/1/2021	12/31/2021	5	218	
4	Paving	Paving	7/1/2021	12/31/2021	5	130	
5	Architectural Coating	Architectural Coating	7/1/2021	12/31/2021	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.5

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	28.00	0.00	210,243.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	120.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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					0.9359	0.0000	0.9359	0.4493	0.0000	0.4493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7239	7.6868	6.1425	0.0111		0.3405	0.3405		0.3132	0.3132	0.0000	973.6067	973.6067	0.3149	0.0000	981.4788
Total	**0.7239**	**7.6868**	**6.1425**	**0.0111**	**0.9359**	**0.3405**	**1.2764**	**0.4493**	**0.3132**	**0.7625**	**0.0000**	**973.6067**	**973.6067**	**0.3149**	**0.0000**	**981.4788**

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	0.1923	10.0608	1.5583	0.0121	0.0470	7.4400e-003	0.0545	0.0131	7.1100e-003	0.0202	0.0000	1,193.6716	1,193.6716	0.1993	0.0000	1,198.6529
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	6.2800e-003	4.4800e-003	0.0451	1.4000e-004	0.0145	1.0000e-004	0.0146	3.8500e-003	9.0000e-005	3.9400e-003	0.0000	12.6514	12.6514	3.6000e-004	0.0000	12.6605
Total	**0.1986**	**10.0653**	**1.6034**	**0.0122**	**0.0615**	**7.5400e-003**	**0.0691**	**0.0170**	**7.2000e-003**	**0.0242**	**0.0000**	**1,206.3231**	**1,206.3231**	**0.1996**	**0.0000**	**1,211.3134**

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					0.3650	0.0000	0.3650	0.1752	0.0000	0.1752	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7239	7.6868	6.1425	0.0111		0.3405	0.3405		0.3132	0.3132	0.0000	973.6055	973.6055	0.3149	0.0000	981.4776
Total	**0.7239**	**7.6868**	**6.1425**	**0.0111**	**0.3650**	**0.3405**	**0.7055**	**0.1752**	**0.3132**	**0.4885**	**0.0000**	**973.6055**	**973.6055**	**0.3149**	**0.0000**	**981.4776**

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	0.1923	10.0608	1.5583	0.0121	0.0470	7.4400e-003	0.0545	0.0131	7.1100e-003	0.0202	0.0000	1,193.6716	1,193.6716	0.1993	0.0000	1,198.6529
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	6.2800e-003	4.4800e-003	0.0451	1.4000e-004	0.0145	1.0000e-004	0.0146	3.8500e-003	9.0000e-005	3.9400e-003	0.0000	12.6514	12.6514	3.6000e-004	0.0000	12.6605
Total	**0.1986**	**10.0653**	**1.6034**	**0.0122**	**0.0615**	**7.5400e-003**	**0.0691**	**0.0170**	**7.2000e-003**	**0.0242**	**0.0000**	**1,206.3231**	**1,206.3231**	**0.1996**	**0.0000**	**1,211.3134**

3.3 Utilities - 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	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3354	164.3354	0.0532	0.0000	165.6641
Total	**0.1144**	**1.0806**	**1.2691**	**1.8700e-003**		**0.0640**	**0.0640**		**0.0589**	**0.0589**	**0.0000**	**164.3354**	**164.3354**	**0.0532**	**0.0000**	**165.6641**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206
Total	**1.8900e-003**	**1.3500e-003**	**0.0136**	**4.0000e-005**	**4.3700e-003**	**3.0000e-005**	**4.4000e-003**	**1.1600e-003**	**3.0000e-005**	**1.1900e-003**	**0.0000**	**3.8179**	**3.8179**	**1.1000e-004**	**0.0000**	**3.8206**

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	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3352	164.3352	0.0532	0.0000	165.6639
Total	**0.1144**	**1.0806**	**1.2691**	**1.8700e-003**		**0.0640**	**0.0640**		**0.0589**	**0.0589**	**0.0000**	**164.3352**	**164.3352**	**0.0532**	**0.0000**	**165.6639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206
Total	**1.8900e-003**	**1.3500e-003**	**0.0136**	**4.0000e-005**	**4.3700e-003**	**3.0000e-005**	**4.4000e-003**	**1.1600e-003**	**3.0000e-005**	**1.1900e-003**	**0.0000**	**3.8179**	**3.8179**	**1.1000e-004**	**0.0000**	**3.8206**

3.4 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	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4900	507.4900	0.1223	0.0000	510.5466
Total	**0.4165**	**3.8149**	**3.6383**	**5.9000e-003**		**0.2101**	**0.2101**		**0.1975**	**0.1975**	**0.0000**	**507.4900**	**507.4900**	**0.1223**	**0.0000**	**510.5466**

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	0.0136	0.4522	0.1206	1.1800e-003	0.0292	9.6000e-004	0.0302	8.4300e-003	9.2000e-004	9.3500e-003	0.0000	115.0336	115.0336	8.5400e-003	0.0000	115.2471
Worker	0.0459	0.0327	0.3298	1.0200e-003	0.1059	7.5000e-004	0.1066	0.0281	6.9000e-004	0.0288	0.0000	92.4690	92.4690	2.6500e-003	0.0000	92.5352
Total	**0.0595**	**0.4849**	**0.4504**	**2.2000e-003**	**0.1351**	**1.7100e-003**	**0.1368**	**0.0366**	**1.6100e-003**	**0.0382**	**0.0000**	**207.5026**	**207.5026**	**0.0112**	**0.0000**	**207.7823**

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	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4894	507.4894	0.1223	0.0000	510.5459
Total	**0.4165**	**3.8149**	**3.6383**	**5.9000e-003**		**0.2101**	**0.2101**		**0.1975**	**0.1975**	**0.0000**	**507.4894**	**507.4894**	**0.1223**	**0.0000**	**510.5459**

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	0.0136	0.4522	0.1206	1.1800e-003	0.0292	9.6000e-004	0.0302	8.4300e-003	9.2000e-004	9.3500e-003	0.0000	115.0336	115.0336	8.5400e-003	0.0000	115.2471
Worker	0.0459	0.0327	0.3298	1.0200e-003	0.1059	7.5000e-004	0.1066	0.0281	6.9000e-004	0.0288	0.0000	92.4690	92.4690	2.6500e-003	0.0000	92.5352
Total	**0.0595**	**0.4849**	**0.4504**	**2.2000e-003**	**0.1351**	**1.7100e-003**	**0.1368**	**0.0366**	**1.6100e-003**	**0.0382**	**0.0000**	**207.5026**	**207.5026**	**0.0112**	**0.0000**	**207.7823**

3.5 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	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9161	318.9161	0.0978	0.0000	321.3619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2182**	**2.1159**	**2.3557**	**3.7300e-003**		**0.1101**	**0.1101**		**0.1019**	**0.1019**	**0.0000**	**318.9161**	**318.9161**	**0.0978**	**0.0000**	**321.3619**

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	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549

Total	**6.4200e-003**	**4.5800e-003**	**0.0462**	**1.4000e-004**	**0.0148**	**1.0000e-004**	**0.0149**	**3.9400e-003**	**1.0000e-004**	**4.0300e-003**	**0.0000**	**12.9457**	**12.9457**	**3.7000e-004**	**0.0000**	**12.9549**

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	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9157	318.9157	0.0978	0.0000	321.3615
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2182**	**2.1159**	**2.3557**	**3.7300e-003**		**0.1101**	**0.1101**		**0.1019**	**0.1019**	**0.0000**	**318.9157**	**318.9157**	**0.0978**	**0.0000**	**321.3615**

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	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549
Total	**6.4200e-003**	**4.5800e-003**	**0.0462**	**1.4000e-004**	**0.0148**	**1.0000e-004**	**0.0149**	**3.9400e-003**	**1.0000e-004**	**4.0300e-003**	**0.0000**	**12.9457**	**12.9457**	**3.7000e-004**	**0.0000**	**12.9549**

3.6 Architectural Coating - 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					
Archit. Coating	1.8085					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0289	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7030	33.7030	2.3100e-003	0.0000	33.7608
Total	**1.8374**	**0.2015**	**0.2399**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**33.7030**	**33.7030**	**2.3100e-003**	**0.0000**	**33.7608**

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	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042
Total	**5.5100e-003**	**3.9300e-003**	**0.0396**	**1.2000e-004**	**0.0127**	**9.0000e-005**	**0.0128**	**3.3800e-003**	**8.0000e-005**	**3.4600e-003**	**0.0000**	**11.0963**	**11.0963**	**3.2000e-004**	**0.0000**	**11.1042**

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	1.8085					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0289	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7029	33.7029	2.3100e-003	0.0000	33.7607
Total	**1.8374**	**0.2015**	**0.2399**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**33.7029**	**33.7029**	**2.3100e-003**	**0.0000**	**33.7607**

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	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042
Total	**5.5100e-003**	**3.9300e-003**	**0.0396**	**1.2000e-004**	**0.0127**	**9.0000e-005**	**0.0128**	**3.3800e-003**	**8.0000e-005**	**3.4600e-003**	**0.0000**	**11.0963**	**11.0963**	**3.2000e-004**	**0.0000**	**11.1042**

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	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Unmitigated	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0484	0.0182	1.5703	8.0000e-005		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	2.5471	2.5471	2.5200e-003	0.0000	2.6102
Total	**15.1097**	**0.2756**	**17.8355**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5941**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0484	0.0182	1.5703	8.0000e-005		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	2.5471	2.5471	2.5200e-003	0.0000	2.6102
Total	**15.1097**	**0.2756**	**17.8355**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5941**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0616	2.9586	0.0000	124.0256

Unmitigated	50.0616	2.9586	0.0000	124.0256

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0616**	**2.9586**	**0.0000**	**124.0256**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0616**	**2.9586**	**0.0000**	**124.0256**

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

Otay Ranch Resort Village Year 4 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 4 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.20	Acre	2.20	95,832.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	47916	0
tblAreaCoating	Area_Nonresidential_Interior	143748	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.58	0.00
tblFleetMix	LDA	0.58	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6000e-003	0.00
tblFleetMix	LHD2	5.6000e-003	0.00
tblFleetMix	MCY	6.2790e-003	0.00
tblFleetMix	MCY	6.2790e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.3570e-003	0.00
tblFleetMix	MH	1.3570e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.8880e-003	0.00
tblFleetMix	OBUS	1.8880e-003	0.00
tblFleetMix	SBUS	7.4200e-004	0.00
tblFleetMix	SBUS	7.4200e-004	0.00
tblFleetMix	UBUS	2.0880e-003	0.00
tblFleetMix	UBUS	2.0880e-003	0.00
tblGrading	AcresOfGrading	910.00	79.30
tblGrading	MaterialExported	0.00	838,858.00
tblGrading	MaterialImported	0.00	838,858.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	38.00	76.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	116.00	232.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	23.00	46.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	3.4429	23.6949	16.0398	0.0401	1.3343	0.6446	1.9789	0.5571	0.5985	1.1555	0.0000	3,668.7672	3,668.7672	0.8082	0.0000	3,688.9715
Maximum	**3.4429**	**23.6949**	**16.0398**	**0.0401**	**1.3343**	**0.6446**	**1.9789**	**0.5571**	**0.5985**	**1.1555**	**0.0000**	**3,668.7672**	**3,668.7672**	**0.8082**	**0.0000**	**3,688.9715**

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					
2022	3.4429	23.6949	16.0398	0.0401	0.7636	0.6446	1.4082	0.2830	0.5985	0.8815	0.0000	3,668.7648	3,668.7648	0.8082	0.0000	3,688.9690
Maximum	**3.4429**	**23.6949**	**16.0398**	**0.0401**	**0.7636**	**0.6446**	**1.4082**	**0.2830**	**0.5985**	**0.8815**	**0.0000**	**3,668.7648**	**3,668.7648**	**0.8082**	**0.0000**	**3,688.9690**

	ROG	NOx	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**	**42.77**	**0.00**	**28.84**	**49.19**	**0.00**	**23.72**	**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)
		Highest		

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	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0576	0.0000	50.0576	2.9583	0.0000	124.0155
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.1017**	**0.5018**	**17.9285**	**0.0310**	**1.8316**	**2.3074**	**4.1390**	**0.4496**	**2.3074**	**2.7570**	**271.3195**	**355.6038**	**626.9233**	**3.6119**	**0.0324**	**726.8734**

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	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0576	0.0000	50.0576	2.9583	0.0000	124.0155
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.1017**	**0.5018**	**17.9285**	**0.0310**	**1.8316**	**2.3074**	**4.1390**	**0.4496**	**2.3074**	**2.7570**	**271.3195**	**355.6038**	**626.9233**	**3.6119**	**0.0324**	**726.8734**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2022	6/30/2022	5	130	
2	Utilities	Trenching	2/1/2022	7/31/2022	5	129	
3	Building Construction	Building Construction	3/1/2022	12/31/2022	5	218	
4	Paving	Paving	7/1/2022	12/31/2022	5	131	
5	Architectural Coating	Architectural Coating	7/1/2022	12/31/2022	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.3

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 143,748; Non-Residential Outdoor: 47,916; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	209,715.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	232.00	76.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	46.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 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					
Fugitive Dust					0.9355	0.0000	0.9355	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6459	6.5727	5.8340	0.0111		0.2892	0.2892		0.2660	0.2660	0.0000	974.4940	974.4940	0.3152	0.0000	982.3733
Total	**0.6459**	**6.5727**	**5.8340**	**0.0111**	**0.9355**	**0.2892**	**1.2247**	**0.4492**	**0.2660**	**0.7153**	**0.0000**	**974.4940**	**974.4940**	**0.3152**	**0.0000**	**982.3733**

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	0.1796	9.6689	1.4994	0.0119	0.0469	6.2700e-003	0.0532	0.0131	6.0000e-003	0.0191	0.0000	1,179.2548	1,179.2548	0.1875	0.0000	1,183.9413
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	0.0119	8.1700e-003	0.0838	2.7000e-004	0.0290	2.0000e-004	0.0292	7.7000e-003	1.8000e-004	7.8800e-003	0.0000	24.3753	24.3753	6.6000e-004	0.0000	24.3919
Total	**0.1915**	**9.6771**	**1.5832**	**0.0122**	**0.0759**	**6.4700e-003**	**0.0824**	**0.0208**	**6.1800e-003**	**0.0269**	**0.0000**	**1,203.6301**	**1,203.6301**	**0.1881**	**0.0000**	**1,208.3332**

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					0.3649	0.0000	0.3649	0.1752	0.0000	0.1752	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6459	6.5727	5.8340	0.0111		0.2892	0.2892		0.2660	0.2660	0.0000	974.4928	974.4928	0.3152	0.0000	982.3721
Total	**0.6459**	**6.5727**	**5.8340**	**0.0111**	**0.3649**	**0.2892**	**0.6540**	**0.1752**	**0.2660**	**0.4412**	**0.0000**	**974.4928**	**974.4928**	**0.3152**	**0.0000**	**982.3721**

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	0.1796	9.6689	1.4994	0.0119	0.0469	6.2700e-003	0.0532	0.0131	6.0000e-003	0.0191	0.0000	1,179.2548	1,179.2548	0.1875	0.0000	1,183.9413
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	0.0119	8.1700e-003	0.0838	2.7000e-004	0.0290	2.0000e-004	0.0292	7.7000e-003	1.8000e-004	7.8800e-003	0.0000	24.3753	24.3753	6.6000e-004	0.0000	24.3919
Total	**0.1915**	**9.6771**	**1.5832**	**0.0122**	**0.0759**	**6.4700e-003**	**0.0824**	**0.0208**	**6.1800e-003**	**0.0269**	**0.0000**	**1,203.6301**	**1,203.6301**	**0.1881**	**0.0000**	**1,208.3332**

3.3 Utilities - 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	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4892	194.4892	0.0629	0.0000	196.0617
Total	**0.1229**	**1.1334**	**1.4936**	**2.2100e-003**		**0.0660**	**0.0660**		**0.0608**	**0.0608**	**0.0000**	**194.4892**	**194.4892**	**0.0629**	**0.0000**	**196.0617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114
Total	**4.2400e-003**	**2.9200e-003**	**0.0299**	**1.0000e-004**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**7.0000e-005**	**2.8100e-003**	**0.0000**	**8.7055**	**8.7055**	**2.4000e-004**	**0.0000**	**8.7114**

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	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4889	194.4889	0.0629	0.0000	196.0615
Total	**0.1229**	**1.1334**	**1.4936**	**2.2100e-003**		**0.0660**	**0.0660**		**0.0608**	**0.0608**	**0.0000**	**194.4889**	**194.4889**	**0.0629**	**0.0000**	**196.0615**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114
Total	**4.2400e-003**	**2.9200e-003**	**0.0299**	**1.0000e-004**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**7.0000e-005**	**2.8100e-003**	**0.0000**	**8.7055**	**8.7055**	**2.4000e-004**	**0.0000**	**8.7114**

3.4 Building Construction - 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	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3755	505.3755	0.1209	0.0000	508.3980
Total	**0.3721**	**3.4025**	**3.5757**	**5.8700e-003**		**0.1765**	**0.1765**		**0.1660**	**0.1660**	**0.0000**	**505.3755**	**505.3755**	**0.1209**	**0.0000**	**508.3980**

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	0.0239	0.8076	0.2159	2.2000e-003	0.0552	1.5600e-003	0.0568	0.0160	1.4900e-003	0.0174	0.0000	215.5100	215.5100	0.0156	0.0000	215.9011
Worker	0.0836	0.0574	0.5892	1.9000e-003	0.2037	1.4100e-003	0.2051	0.0541	1.3000e-003	0.0554	0.0000	171.4371	171.4371	4.6700e-003	0.0000	171.5539
Total	**0.1075**	**0.8651**	**0.8052**	**4.1000e-003**	**0.2590**	**2.9700e-003**	**0.2619**	**0.0701**	**2.7900e-003**	**0.0729**	**0.0000**	**386.9471**	**386.9471**	**0.0203**	**0.0000**	**387.4550**

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	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3749	505.3749	0.1209	0.0000	508.3974
Total	**0.3721**	**3.4025**	**3.5757**	**5.8700e-003**		**0.1765**	**0.1765**		**0.1660**	**0.1660**	**0.0000**	**505.3749**	**505.3749**	**0.1209**	**0.0000**	**508.3974**

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	0.0239	0.8076	0.2159	2.2000e-003	0.0552	1.5600e-003	0.0568	0.0160	1.4900e-003	0.0174	0.0000	215.5100	215.5100	0.0156	0.0000	215.9011
Worker	0.0836	0.0574	0.5892	1.9000e-003	0.2037	1.4100e-003	0.2051	0.0541	1.3000e-003	0.0554	0.0000	171.4371	171.4371	4.6700e-003	0.0000	171.5539
Total	**0.1075**	**0.8651**	**0.8052**	**4.1000e-003**	**0.2590**	**2.9700e-003**	**0.2619**	**0.0701**	**2.7900e-003**	**0.0729**	**0.0000**	**386.9471**	**386.9471**	**0.0203**	**0.0000**	**387.4550**

3.5 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	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5919	316.5919	0.0971	0.0000	319.0199
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1940**	**1.8418**	**2.3257**	**3.7000e-003**		**0.0924**	**0.0924**		**0.0856**	**0.0856**	**0.0000**	**316.5919**	**316.5919**	**0.0971**	**0.0000**	**319.0199**

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	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701

Total	**0.0121**	**8.2900e-003**	**0.0851**	**2.7000e-004**	**0.0294**	**2.0000e-004**	**0.0296**	**7.8200e-003**	**1.9000e-004**	**8.0000e-003**	**0.0000**	**24.7532**	**24.7532**	**6.7000e-004**	**0.0000**	**24.7701**

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	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5915	316.5915	0.0971	0.0000	319.0195
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1940**	**1.8418**	**2.3257**	**3.7000e-003**		**0.0924**	**0.0924**		**0.0856**	**0.0856**	**0.0000**	**316.5915**	**316.5915**	**0.0971**	**0.0000**	**319.0195**

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	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701
Total	**0.0121**	**8.2900e-003**	**0.0851**	**2.7000e-004**	**0.0294**	**2.0000e-004**	**0.0296**	**7.8200e-003**	**1.9000e-004**	**8.0000e-003**	**0.0000**	**24.7532**	**24.7532**	**6.7000e-004**	**0.0000**	**24.7701**

3.6 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	1.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5021
Total	**1.7827**	**0.1845**	**0.2376**	**3.9000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**33.4476**	**33.4476**	**2.1800e-003**	**0.0000**	**33.5021**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469
Total	**9.9100e-003**	**6.8100e-003**	**0.0699**	**2.2000e-004**	**0.0242**	**1.7000e-004**	**0.0243**	**6.4200e-003**	**1.5000e-004**	**6.5700e-003**	**0.0000**	**20.3330**	**20.3330**	**5.5000e-004**	**0.0000**	**20.3469**

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	1.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5020
Total	**1.7827**	**0.1845**	**0.2376**	**3.9000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**33.4476**	**33.4476**	**2.1800e-003**	**0.0000**	**33.5020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469
Total	**9.9100e-003**	**6.8100e-003**	**0.0699**	**2.2000e-004**	**0.0242**	**1.7000e-004**	**0.0243**	**6.4200e-003**	**1.5000e-004**	**6.5700e-003**	**0.0000**	**20.3330**	**20.3330**	**5.5000e-004**	**0.0000**	**20.3469**

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	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.16	50.05	36.83	32,836	32,836
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.36	2,131.15	1,847.03	5,697,473	5,697,473

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Unmitigated	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0182	1.5670	8.0000e-005		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	2.5471	2.5471	2.5000e-003	0.0000	2.6096
Total	**15.0752**	**0.2755**	**17.8322**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5934**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0182	1.5670	8.0000e-005		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	2.5471	2.5471	2.5000e-003	0.0000	2.6096
Total	**15.0752**	**0.2755**	**17.8322**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5934**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.62126	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.62126	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0576	2.9583	0.0000	124.0155

Unmitigated	50.0576	2.9583	0.0000	124.0155

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0576**	**2.9583**	**0.0000**	**124.0155**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0576**	**2.9583**	**0.0000**	**124.0155**

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

Otay Ranch Resort Village Year 5 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblGrading	AcresOfGrading	903.00	79.60
tblGrading	MaterialExported	0.00	842,031.00
tblGrading	MaterialImported	0.00	842,031.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	40.00	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	120.00	240.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	24.00	48.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.3331	21.3887	15.8845	0.0408	1.3534	0.5797	1.9331	0.5635	0.5380	1.1016	0.0000	3,732.4206	3,732.4206	0.8053	0.0000	3,752.5523
Maximum	**3.3331**	**21.3887**	**15.8845**	**0.0408**	**1.3534**	**0.5797**	**1.9331**	**0.5635**	**0.5380**	**1.1016**	**0.0000**	**3,732.4206**	**3,732.4206**	**0.8053**	**0.0000**	**3,752.5523**

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					
2023	3.3331	21.3887	15.8845	0.0408	0.7771	0.5797	1.3568	0.2872	0.5380	0.8253	0.0000	3,732.4181	3,732.4181	0.8053	0.0000	3,752.5497
Maximum	**3.3331**	**21.3887**	**15.8845**	**0.0408**	**0.7771**	**0.5797**	**1.3568**	**0.2872**	**0.5380**	**0.8253**	**0.0000**	**3,732.4181**	**3,732.4181**	**0.8053**	**0.0000**	**3,752.5497**

	ROG	NOx	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**	**42.58**	**0.00**	**29.81**	**49.03**	**0.00**	**25.08**	**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)
		Highest		

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	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.1354**	**0.5017**	**17.9260**	**0.0310**	**1.8325**	**2.3074**	**4.1400**	**0.4498**	**2.3074**	**2.7573**	**271.3235**	**355.6038**	**626.9273**	**3.6121**	**0.0324**	**726.8831**

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	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.1354**	**0.5017**	**17.9260**	**0.0310**	**1.8325**	**2.3074**	**4.1400**	**0.4498**	**2.3074**	**2.7573**	**271.3235**	**355.6038**	**626.9273**	**3.6121**	**0.0324**	**726.8831**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2023	6/30/2023	5	129	
2	Utilities	Trenching	2/1/2023	7/31/2023	5	129	
3	Building Construction	Building Construction	3/1/2023	12/31/2023	5	218	
4	Paving	Paving	7/1/2023	12/31/2023	5	132	
5	Architectural Coating	Architectural Coating	7/1/2023	12/31/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	210,508.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	240.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	48.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

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					0.9447	0.0000	0.9447	0.4530	0.0000	0.4530	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6445	6.2623	5.9448	0.0121		0.2701	0.2701		0.2485	0.2485	0.0000	1,062.1877	1,062.1877	0.3435	0.0000	1,070.7761
Total	**0.6445**	**6.2623**	**5.9448**	**0.0121**	**0.9447**	**0.2701**	**1.2148**	**0.4530**	**0.2485**	**0.7015**	**0.0000**	**1,062.1877**	**1,062.1877**	**0.3435**	**0.0000**	**1,070.7761**

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	0.1335	8.3676	1.3504	0.0116	0.0473	3.6900e-003	0.0510	0.0132	3.5300e-003	0.0167	0.0000	1,159.2092	1,159.2092	0.1596	0.0000	1,163.1982
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	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	**0.1449**	**8.3751**	**1.4287**	**0.0119**	**0.0765**	**3.8900e-003**	**0.0804**	**0.0210**	**3.7100e-003**	**0.0247**	**0.0000**	**1,182.8352**	**1,182.8352**	**0.1602**	**0.0000**	**1,186.8395**

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					0.3684	0.0000	0.3684	0.1767	0.0000	0.1767	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6445	6.2623	5.9448	0.0121		0.2701	0.2701		0.2485	0.2485	0.0000	1,062.1865	1,062.1865	0.3435	0.0000	1,070.7748
Total	**0.6445**	**6.2623**	**5.9448**	**0.0121**	**0.3684**	**0.2701**	**0.6385**	**0.1767**	**0.2485**	**0.4252**	**0.0000**	**1,062.1865**	**1,062.1865**	**0.3435**	**0.0000**	**1,070.7748**

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	0.1335	8.3676	1.3504	0.0116	0.0473	3.6900e-003	0.0510	0.0132	3.5300e-003	0.0167	0.0000	1,159.2092	1,159.2092	0.1596	0.0000	1,163.1982
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	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	**0.1449**	**8.3751**	**1.4287**	**0.0119**	**0.0765**	**3.8900e-003**	**0.0804**	**0.0210**	**3.7100e-003**	**0.0247**	**0.0000**	**1,182.8352**	**1,182.8352**	**0.1602**	**0.0000**	**1,186.8395**

3.3 Utilities - 2023

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	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5804	194.5804	0.0629	0.0000	196.1537
Total	**0.1153**	**1.0355**	**1.4926**	**2.2200e-003**		**0.0595**	**0.0595**		**0.0548**	**0.0548**	**0.0000**	**194.5804**	**194.5804**	**0.0629**	**0.0000**	**196.1537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784
Total	**4.0200e-003**	**2.6600e-003**	**0.0278**	**9.0000e-005**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**6.0000e-005**	**2.8100e-003**	**0.0000**	**8.3729**	**8.3729**	**2.2000e-004**	**0.0000**	**8.3784**

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	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5802	194.5802	0.0629	0.0000	196.1535
Total	**0.1153**	**1.0355**	**1.4926**	**2.2200e-003**		**0.0595**	**0.0595**		**0.0548**	**0.0548**	**0.0000**	**194.5802**	**194.5802**	**0.0629**	**0.0000**	**196.1535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784
Total	**4.0200e-003**	**2.6600e-003**	**0.0278**	**9.0000e-005**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**6.0000e-005**	**2.8100e-003**	**0.0000**	**8.3729**	**8.3729**	**2.2000e-004**	**0.0000**	**8.3784**

3.4 Building Construction - 2023

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	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2413	503.2413	0.1195	0.0000	506.2296
Total	**0.3414**	**3.1202**	**3.5336**	**5.8500e-003**		**0.1519**	**0.1519**		**0.1429**	**0.1429**	**0.0000**	**503.2413**	**503.2413**	**0.1195**	**0.0000**	**506.2296**

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	0.0194	0.6648	0.2060	2.2500e-003	0.0579	8.0000e-004	0.0587	0.0167	7.6000e-004	0.0175	0.0000	220.1321	220.1321	0.0150	0.0000	220.5063
Worker	0.0816	0.0540	0.5627	1.8800e-003	0.2098	1.4200e-003	0.2112	0.0558	1.3100e-003	0.0571	0.0000	169.7955	169.7955	4.4000e-003	0.0000	169.9055
Total	**0.1009**	**0.7188**	**0.7688**	**4.1300e-003**	**0.2677**	**2.2200e-003**	**0.2699**	**0.0725**	**2.0700e-003**	**0.0745**	**0.0000**	**389.9276**	**389.9276**	**0.0194**	**0.0000**	**390.4118**

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	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2407	503.2407	0.1195	0.0000	506.2290
Total	**0.3414**	**3.1202**	**3.5336**	**5.8500e-003**		**0.1519**	**0.1519**		**0.1429**	**0.1429**	**0.0000**	**503.2407**	**503.2407**	**0.1195**	**0.0000**	**506.2290**

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	0.0194	0.6648	0.2060	2.2500e-003	0.0579	8.0000e-004	0.0587	0.0167	7.6000e-004	0.0175	0.0000	220.1321	220.1321	0.0150	0.0000	220.5063
Worker	0.0816	0.0540	0.5627	1.8800e-003	0.2098	1.4200e-003	0.2112	0.0558	1.3100e-003	0.0571	0.0000	169.7955	169.7955	4.4000e-003	0.0000	169.9055
Total	**0.1009**	**0.7188**	**0.7688**	**4.1300e-003**	**0.2677**	**2.2200e-003**	**0.2699**	**0.0725**	**2.0700e-003**	**0.0745**	**0.0000**	**389.9276**	**389.9276**	**0.0194**	**0.0000**	**390.4118**

3.5 Paving - 2023

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	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2064	314.2064	0.0964	0.0000	316.6161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1819**	**1.6909**	**2.3075**	**3.6800e-003**		**0.0824**	**0.0824**		**0.0764**	**0.0764**	**0.0000**	**314.2064**	**314.2064**	**0.0964**	**0.0000**	**316.6161**

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	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413

Total	**0.0114**	**7.5100e-003**	**0.0783**	**2.6000e-004**	**0.0292**	**2.0000e-004**	**0.0294**	**7.7600e-003**	**1.8000e-004**	**7.9400e-003**	**0.0000**	**23.6260**	**23.6260**	**6.1000e-004**	**0.0000**	**23.6413**

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	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2060	314.2060	0.0964	0.0000	316.6157
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1819**	**1.6909**	**2.3075**	**3.6800e-003**		**0.0824**	**0.0824**		**0.0764**	**0.0764**	**0.0000**	**314.2060**	**314.2060**	**0.0964**	**0.0000**	**316.6157**

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	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	**0.0114**	**7.5100e-003**	**0.0783**	**2.6000e-004**	**0.0292**	**2.0000e-004**	**0.0294**	**7.7600e-003**	**1.8000e-004**	**7.9400e-003**	**0.0000**	**23.6260**	**23.6260**	**6.1000e-004**	**0.0000**	**23.6413**

3.6 Architectural Coating - 2023

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	1.7541					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**1.7791**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640
Total	**9.7300e-003**	**6.4400e-003**	**0.0671**	**2.2000e-004**	**0.0250**	**1.7000e-004**	**0.0252**	**6.6500e-003**	**1.6000e-004**	**6.8000e-003**	**0.0000**	**20.2508**	**20.2508**	**5.2000e-004**	**0.0000**	**20.2640**

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	1.7541					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**1.7791**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640
Total	**9.7300e-003**	**6.4400e-003**	**0.0671**	**2.2000e-004**	**0.0250**	**1.7000e-004**	**0.0252**	**6.6500e-003**	**1.6000e-004**	**6.8000e-003**	**0.0000**	**20.2508**	**20.2508**	**5.2000e-004**	**0.0000**	**20.2640**

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	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Unmitigated	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0476	0.0181	1.5645	8.0000e-005		8.6000e-003	8.6000e-003		8.6000e-003	8.6000e-003	0.0000	2.5471	2.5471	2.4800e-003	0.0000	2.6092
Total	**15.1089**	**0.2754**	**17.8297**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5930**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0476	0.0181	1.5645	8.0000e-005		8.6000e-003	8.6000e-003		8.6000e-003	8.6000e-003	0.0000	2.5471	2.5471	2.4800e-003	0.0000	2.6092
Total	**15.1089**	**0.2754**	**17.8297**	**0.0296**		**2.2891**	**2.2891**		**2.2891**	**2.2891**	**216.9211**	**93.5206**	**310.4418**	**0.2027**	**0.0171**	**320.5930**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0616	2.9586	0.0000	124.0256

Unmitigated	50.0616	2.9586	0.0000	124.0256

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0616**	**2.9586**	**0.0000**	**124.0256**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0616**	**2.9586**	**0.0000**	**124.0256**

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

Otay Ranch Resort Village Year 5 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 5 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblGrading	AcresOfGrading	903.00	79.60
tblGrading	MaterialExported	0.00	842,031.00
tblGrading	MaterialImported	0.00	842,031.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	40.00	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	120.00	240.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	24.00	48.00

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					
2023	36.3888	277.9371	174.4035	0.5065	18.4128	6.5464	24.9592	8.0199	6.0541	14.0740	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316
Maximum	**36.3888**	**277.9371**	**174.4035**	**0.5065**	**18.4128**	**6.5464**	**24.9592**	**8.0199**	**6.0541**	**14.0740**	**0.0000**	**51,684.3163**	**51,684.3163**	**10.8886**	**0.0000**	**51,956.5316**

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					
2023	36.3888	277.9371	174.4035	0.5065	9.5477	6.5464	16.0940	3.7689	6.0541	9.8230	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316
Maximum	**36.3888**	**277.9371**	**174.4035**	**0.5065**	**9.5477**	**6.5464**	**16.0940**	**3.7689**	**6.0541**	**9.8230**	**0.0000**	**51,684.3163**	**51,684.3163**	**10.8886**	**0.0000**	**51,956.5316**

	ROG	NOx	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**	**48.15**	**0.00**	**35.52**	**53.01**	**0.00**	**30.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Total	**332.3838**	**7.7173**	**414.6231**	**0.7276**	**11.0032**	**55.8187**	**66.8219**	**2.7008**	**55.8187**	**58.5195**	**5,832.0635**	**4,060.0775**	**9,892.1409**	**5.4428**	**0.4878**	**10,173.5624**

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	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Total	**332.3838**	**7.7173**	**414.6231**	**0.7276**	**11.0032**	**55.8187**	**66.8219**	**2.7008**	**55.8187**	**58.5195**	**5,832.0635**	**4,060.0775**	**9,892.1409**	**5.4428**	**0.4878**	**10,173.5624**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2023	6/30/2023	5	129	
2	Utilities	Trenching	2/1/2023	7/31/2023	5	129	
3	Building Construction	Building Construction	3/1/2023	12/31/2023	5	218	
4	Paving	Paving	7/1/2023	12/31/2023	5	132	
5	Architectural Coating	Architectural Coating	7/1/2023	12/31/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	210,508.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	240.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	48.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

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					14.5330	0.0000	14.5330	6.9689	0.0000	6.9689			0.0000			0.0000
Off-Road	9.9159	96.3426	91.4578	0.1860		4.1559	4.1559		3.8234	3.8234		18,013.2546	18,013.2546	5.8259		18,158.9009
Total	**9.9159**	**96.3426**	**91.4578**	**0.1860**	**14.5330**	**4.1559**	**18.6889**	**6.9689**	**3.8234**	**10.7923**		**18,013.2546**	**18,013.2546**	**5.8259**		**18,158.9009**

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	1.9519	130.2624	18.3457	0.1876	0.7424	0.0501	0.7925	0.2066	0.0479	0.2545		20,621.4427	20,621.4427	2.5690		20,685.6671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	**2.1253**	**130.3672**	**19.6287**	**0.1919**	**1.2024**	**0.0531**	**1.2555**	**0.3286**	**0.0507**	**0.3793**		**21,044.0002**	**21,044.0002**	**2.5799**		**21,108.4977**

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					5.6679	0.0000	5.6679	2.7179	0.0000	2.7179			0.0000			0.0000
Off-Road	9.9159	96.3426	91.4578	0.1860		4.1559	4.1559		3.8234	3.8234	0.0000	18,013.2546	18,013.2546	5.8259		18,158.9008
Total	**9.9159**	**96.3426**	**91.4578**	**0.1860**	**5.6679**	**4.1559**	**9.8238**	**2.7179**	**3.8234**	**6.5413**	**0.0000**	**18,013.2546**	**18,013.2546**	**5.8259**		**18,158.9008**

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	1.9519	130.2624	18.3457	0.1876	0.7424	0.0501	0.7925	0.2066	0.0479	0.2545		20,621.4427	20,621.4427	2.5690		20,685.6671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	**2.1253**	**130.3672**	**19.6287**	**0.1919**	**1.2024**	**0.0531**	**1.2555**	**0.3286**	**0.0507**	**0.3793**		**21,044.0002**	**21,044.0002**	**2.5799**		**21,108.4977**

3.3 Utilities - 2023

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	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488		3,325.3984	3,325.3984	1.0755		3,352.2859
Total	**1.7877**	**16.0548**	**23.1407**	**0.0344**		**0.9226**	**0.9226**		**0.8488**	**0.8488**		**3,325.3984**	**3,325.3984**	**1.0755**		**3,352.2859**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109
Total	**0.0619**	**0.0374**	**0.4582**	**1.5100e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**150.9134**	**150.9134**	**3.9000e-003**		**151.0109**

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	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488	0.0000	3,325.3984	3,325.3984	1.0755		3,352.2859
Total	**1.7877**	**16.0548**	**23.1407**	**0.0344**		**0.9226**	**0.9226**		**0.8488**	**0.8488**	**0.0000**	**3,325.3984**	**3,325.3984**	**1.0755**		**3,352.2859**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109
Total	**0.0619**	**0.0374**	**0.4582**	**1.5100e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**150.9134**	**150.9134**	**3.9000e-003**		**151.0109**

3.4 Building Construction - 2023

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	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113		5,089.2525	5,089.2525	1.2088		5,119.4736
Total	**3.1322**	**28.6253**	**32.4185**	**0.0537**		**1.3934**	**1.3934**		**1.3113**	**1.3113**		**5,089.2525**	**5,089.2525**	**1.2088**		**5,119.4736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1735	6.0607	1.8011	0.0208	0.5416	7.1400e-003	0.5487	0.1559	6.8300e-003	0.1627		2,250.5363	2,250.5363	0.1478		2,254.2313
Worker	0.7431	0.4491	5.4986	0.0182	1.9715	0.0131	1.9846	0.5230	0.0120	0.5350		1,810.9610	1,810.9610	0.0468		1,812.1313
Total	**0.9165**	**6.5098**	**7.2997**	**0.0390**	**2.5131**	**0.0202**	**2.5333**	**0.6789**	**0.0189**	**0.6977**		**4,061.4973**	**4,061.4973**	**0.1946**		**4,066.3626**

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	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113	0.0000	5,089.2525	5,089.2525	1.2088		5,119.4736
Total	**3.1322**	**28.6253**	**32.4185**	**0.0537**		**1.3934**	**1.3934**		**1.3113**	**1.3113**	**0.0000**	**5,089.2525**	**5,089.2525**	**1.2088**		**5,119.4736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1735	6.0607	1.8011	0.0208	0.5416	7.1400e-003	0.5487	0.1559	6.8300e-003	0.1627		2,250.5363	2,250.5363	0.1478		2,254.2313
Worker	0.7431	0.4491	5.4986	0.0182	1.9715	0.0131	1.9846	0.5230	0.0120	0.5350		1,810.9610	1,810.9610	0.0468		1,812.1313

Total	**0.9165**	**6.5098**	**7.2997**	**0.0390**	**2.5131**	**0.0202**	**2.5333**	**0.6789**	**0.0189**	**0.6977**		**4,061.4973**	**4,061.4973**	**0.1946**		**4,066.3626**

3.5 Paving - 2023

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	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759		5,328.5113	5,328.5113	1.6346		5,369.3763
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7984**	**26.0133**	**35.4994**	**0.0566**		**1.2682**	**1.2682**		**1.1759**	**1.1759**		**5,328.5113**	**5,328.5113**	**1.6346**		**5,369.3763**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	**0.1734**	**0.1048**	**1.2830**	**4.2400e-003**	**0.4600**	**3.0500e-003**	**0.4631**	**0.1220**	**2.8100e-003**	**0.1248**		**422.5576**	**422.5576**	**0.0109**		**422.8306**

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	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759	0.0000	5,328.5113	5,328.5113	1.6346		5,369.3763
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7984**	**26.0133**	**35.4994**	**0.0566**		**1.2682**	**1.2682**		**1.1759**	**1.1759**	**0.0000**	**5,328.5113**	**5,328.5113**	**1.6346**		**5,369.3763**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	**0.1734**	**0.1048**	**1.2830**	**4.2400e-003**	**0.4600**	**3.0500e-003**	**0.4631**	**0.1220**	**2.8100e-003**	**0.1248**		**422.5576**	**422.5576**	**0.0109**		**422.8306**

3.6 Architectural Coating - 2023

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	26.9868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	**27.3701**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**		**562.8961**	**562.8961**	**0.0337**		**563.7380**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263
Total	**0.1486**	**0.0898**	**1.0997**	**3.6300e-003**	**0.3943**	**2.6100e-003**	**0.3969**	**0.1046**	**2.4100e-003**	**0.1070**		**362.1922**	**362.1922**	**9.3600e-003**		**362.4263**

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	26.9868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	**27.3701**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**	**0.0000**	**562.8961**	**562.8961**	**0.0337**		**563.7380**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263
Total	**0.1486**	**0.0898**	**1.0997**	**3.6300e-003**	**0.3943**	**2.6100e-003**	**0.3969**	**0.1046**	**2.4100e-003**	**0.1070**		**362.1922**	**362.1922**	**9.3600e-003**		**362.4263**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

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	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Unmitigated	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.3264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5294	0.2011	17.3831	9.1000e-004		0.0956	0.0956		0.0956	0.0956		31.1965	31.1965	0.0304		31.9570
Total	**332.2387**	**6.4773**	**414.0954**	**0.7196**		**55.7184**	**55.7184**		**55.7184**	**55.7184**	**5,832.0635**	**2,477.0789**	**8,309.1423**	**5.4125**	**0.4587**	**8,581.1568**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.3264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5294	0.2011	17.3831	9.1000e-004		0.0956	0.0956		0.0956	0.0956		31.1965	31.1965	0.0304		31.9570
Total	**332.2387**	**6.4773**	**414.0954**	**0.7196**		**55.7184**	**55.7184**		**55.7184**	**55.7184**	**5,832.0635**	**2,477.0789**	**8,309.1423**	**5.4125**	**0.4587**	**8,581.1568**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 6 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 6 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	794.00	Student	10.00	60,000.00	0
City Park	10.30	Acre	10.30	448,668.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	254334	0

tblAreaCoating	Area_Nonresidential_Interior	763002	0
tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	152.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	130.00
tblConstructionPhase	NumDays	110.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00

tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblGrading	AcresOfGrading	910.00	102.80
tblGrading	MaterialExported	0.00	1,087,447.00
tblGrading	MaterialImported	0.00	1,087,447.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LandUseSquareFeet	66,381.08	60,000.00
tblLandUse	LotAcreage	1.52	10.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00

tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	106.00	212.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	289.00	578.00
tblTripsAndVMT	WorkerTripNumber	58.00	116.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	5.0827	23.7831	17.1651	0.0498	1.8604	0.5293	2.3897	0.6949	0.4914	1.1863	0.0000	4,601.4755	4,601.4755	0.8484	0.0000	4,622.6853
Maximum	**5.0827**	**23.7831**	**17.1651**	**0.0498**	**1.8604**	**0.5293**	**2.3897**	**0.6949**	**0.4914**	**1.1863**	**0.0000**	**4,601.4755**	**4,601.4755**	**0.8484**	**0.0000**	**4,622.6853**

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					
2024	5.0827	23.7831	17.1651	0.0498	1.2564	0.5293	1.7856	0.4147	0.4914	0.9061	0.0000	4,601.4730	4,601.4730	0.8484	0.0000	4,622.6828
Maximum	**5.0827**	**23.7831**	**17.1651**	**0.0498**	**1.2564**	**0.5293**	**1.7856**	**0.4147**	**0.4914**	**0.9061**	**0.0000**	**4,601.4730**	**4,601.4730**	**0.8484**	**0.0000**	**4,622.6828**

	ROG	NOx	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**	**32.47**	**0.00**	**25.28**	**40.32**	**0.00**	**23.62**	**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)
		Highest		

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	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Energy	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
Mobile	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	79.6151	0.0000	79.6151	4.7051	0.0000	197.2430
Water						0.0000	0.0000		0.0000	0.0000	4.9514	0.0000	4.9514	0.5086	0.0120	21.2439
Total	**16.7160**	**0.5191**	**17.9462**	**0.0311**	**2.3890**	**2.3088**	**4.6978**	**0.5864**	**2.3088**	**2.8952**	**301.4877**	**374.5730**	**676.0606**	**5.4218**	**0.0342**	**821.8029**

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	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Energy	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
Mobile	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	79.6151	0.0000	79.6151	4.7051	0.0000	197.2430
Water						0.0000	0.0000		0.0000	0.0000	4.9514	0.0000	4.9514	0.5086	0.0120	21.2439
Total	**16.7160**	**0.5191**	**17.9462**	**0.0311**	**2.3890**	**2.3088**	**4.6978**	**0.5864**	**2.3088**	**2.8952**	**301.4877**	**374.5730**	**676.0606**	**5.4218**	**0.0342**	**821.8029**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	6/30/2024	5	130	
2	Utilities	Trenching	2/1/2024	7/31/2024	5	130	
3	Building Construction	Building Construction	3/1/2024	12/31/2024	5	219	
4	Architectural Coating	Architectural Coating	5/1/2024	12/31/2024	5	152	
5	Paving	Paving	7/1/2024	12/31/2024	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.8

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 763,002; Non-Residential Outdoor: 254,334; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	271,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	578.00	212.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	116.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2024

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					0.9902	0.0000	0.9902	0.4594	0.0000	0.4594	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5860	5.5806	5.6087	0.0112		0.2415	0.2415		0.2222	0.2222	0.0000	981.8115	981.8115	0.3175	0.0000	989.7499
Total	**0.5860**	**5.5806**	**5.6087**	**0.0112**	**0.9902**	**0.2415**	**1.2317**	**0.4594**	**0.2222**	**0.6815**	**0.0000**	**981.8115**	**981.8115**	**0.3175**	**0.0000**	**989.7499**

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	0.1652	10.5785	1.6954	0.0147	0.0610	4.3100e-003	0.0653	0.0170	4.1200e-003	0.0211	0.0000	1,466.8390	1,466.8390	0.1964	0.0000	1,471.7482
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	0.0108	6.8900e-003	0.0731	2.5000e-004	0.0292	1.9000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	22.6959	22.6959	5.6000e-004	0.0000	22.7099
Total	**0.1760**	**10.5854**	**1.7685**	**0.0149**	**0.0901**	**4.5000e-003**	**0.0946**	**0.0248**	**4.3000e-003**	**0.0291**	**0.0000**	**1,489.5348**	**1,489.5348**	**0.1969**	**0.0000**	**1,494.4581**

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					0.3862	0.0000	0.3862	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5860	5.5806	5.6087	0.0112		0.2415	0.2415		0.2222	0.2222	0.0000	981.8103	981.8103	0.3175	0.0000	989.7487

Total	**0.5860**	**5.5806**	**5.6087**	**0.0112**	**0.3862**	**0.2415**	**0.6277**	**0.1792**	**0.2222**	**0.4013**	**0.0000**	**981.8103**	**981.8103**	**0.3175**	**0.0000**	**989.7487**

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	0.1652	10.5785	1.6954	0.0147	0.0610	4.3100e-003	0.0653	0.0170	4.1200e-003	0.0211	0.0000	1,466.8390	1,466.8390	0.1964	0.0000	1,471.7482
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	0.0108	6.8900e-003	0.0731	2.5000e-004	0.0292	1.9000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	22.6959	22.6959	5.6000e-004	0.0000	22.7099
Total	**0.1760**	**10.5854**	**1.7685**	**0.0149**	**0.0901**	**4.5000e-003**	**0.0946**	**0.0248**	**4.3000e-003**	**0.0291**	**0.0000**	**1,489.5348**	**1,489.5348**	**0.1969**	**0.0000**	**1,494.4581**

3.3 Utilities - 2024

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	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1450	196.1450	0.0634	0.0000	197.7310
Total	**0.1121**	**0.9835**	**1.5067**	**2.2300e-003**		**0.0562**	**0.0562**		**0.0517**	**0.0517**	**0.0000**	**196.1450**	**196.1450**	**0.0634**	**0.0000**	**197.7310**

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	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107
Total	**3.8500e-003**	**2.4600e-003**	**0.0261**	**9.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**8.1057**	**8.1057**	**2.0000e-004**	**0.0000**	**8.1107**

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	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1448	196.1448	0.0634	0.0000	197.7307
Total	**0.1121**	**0.9835**	**1.5067**	**2.2300e-003**		**0.0562**	**0.0562**		**0.0517**	**0.0517**	**0.0000**	**196.1448**	**196.1448**	**0.0634**	**0.0000**	**197.7307**

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	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107
Total	**3.8500e-003**	**2.4600e-003**	**0.0261**	**9.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**8.1057**	**8.1057**	**2.0000e-004**	**0.0000**	**8.1107**

3.4 Building Construction - 2024

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	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3380	503.3380	0.1188	0.0000	506.3091
Total	**0.3194**	**2.9163**	**3.5170**	**5.8500e-003**		**0.1331**	**0.1331**		**0.1252**	**0.1252**	**0.0000**	**503.3380**	**503.3380**	**0.1188**	**0.0000**	**506.3091**

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	0.0495	1.7369	0.5287	5.9100e-003	0.1534	2.0600e-003	0.1554	0.0443	1.9600e-003	0.0463	0.0000	579.6424	579.6424	0.0392	0.0000	580.6218
Worker	0.1868	0.1193	1.2656	4.3400e-003	0.5052	3.3700e-003	0.5086	0.1343	3.1000e-003	0.1374	0.0000	392.8254	392.8254	9.7300e-003	0.0000	393.0687
Total	**0.2363**	**1.8562**	**1.7943**	**0.0103**	**0.6586**	**5.4300e-003**	**0.6640**	**0.1785**	**5.0600e-003**	**0.1836**	**0.0000**	**972.4678**	**972.4678**	**0.0489**	**0.0000**	**973.6906**

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	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3374	503.3374	0.1188	0.0000	506.3085
Total	**0.3194**	**2.9163**	**3.5170**	**5.8500e-003**		**0.1331**	**0.1331**		**0.1252**	**0.1252**	**0.0000**	**503.3374**	**503.3374**	**0.1188**	**0.0000**	**506.3085**

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	0.0495	1.7369	0.5287	5.9100e-003	0.1534	2.0600e-003	0.1554	0.0443	1.9600e-003	0.0463	0.0000	579.6424	579.6424	0.0392	0.0000	580.6218
Worker	0.1868	0.1193	1.2656	4.3400e-003	0.5052	3.3700e-003	0.5086	0.1343	3.1000e-003	0.1374	0.0000	392.8254	392.8254	9.7300e-003	0.0000	393.0687
Total	**0.2363**	**1.8562**	**1.7943**	**0.0103**	**0.6586**	**5.4300e-003**	**0.6640**	**0.1785**	**5.0600e-003**	**0.1836**	**0.0000**	**972.4678**	**972.4678**	**0.0489**	**0.0000**	**973.6906**

3.5 Architectural Coating - 2024

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	3.3985					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0316	0.2133	0.3168	5.2000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	44.6819	44.6819	2.5200e-003	0.0000	44.7448
Total	**3.4301**	**0.2133**	**0.3168**	**5.2000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**44.6819**	**44.6819**	**2.5200e-003**	**0.0000**	**44.7448**

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	0.0301	0.0192	0.2039	7.0000e-004	0.0814	5.4000e-004	0.0819	0.0216	5.0000e-004	0.0221	0.0000	63.2865	63.2865	1.5700e-003	0.0000	63.3257
Total	**0.0301**	**0.0192**	**0.2039**	**7.0000e-004**	**0.0814**	**5.4000e-004**	**0.0819**	**0.0216**	**5.0000e-004**	**0.0221**	**0.0000**	**63.2865**	**63.2865**	**1.5700e-003**	**0.0000**	**63.3257**

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	3.3985					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0316	0.2133	0.3168	5.2000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	44.6819	44.6819	2.5200e-003	0.0000	44.7448
Total	**3.4301**	**0.2133**	**0.3168**	**5.2000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**44.6819**	**44.6819**	**2.5200e-003**	**0.0000**	**44.7448**

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	0.0301	0.0192	0.2039	7.0000e-004	0.0814	5.4000e-004	0.0819	0.0216	5.0000e-004	0.0221	0.0000	63.2865	63.2865	1.5700e-003	0.0000	63.3257
Total	**0.0301**	**0.0192**	**0.2039**	**7.0000e-004**	**0.0814**	**5.4000e-004**	**0.0819**	**0.0216**	**5.0000e-004**	**0.0221**	**0.0000**	**63.2865**	**63.2865**	**1.5700e-003**	**0.0000**	**63.3257**

3.6 Paving - 2024

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	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0592	319.0592	0.0979	0.0000	321.5061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1779**	**1.6191**	**2.3489**	**3.7300e-003**		**0.0771**	**0.0771**		**0.0715**	**0.0715**	**0.0000**	**319.0592**	**319.0592**	**0.0979**	**0.0000**	**321.5061**

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	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593
Total	**0.0110**	**7.0000e-003**	**0.0743**	**2.5000e-004**	**0.0296**	**2.0000e-004**	**0.0298**	**7.8800e-003**	**1.8000e-004**	**8.0600e-003**	**0.0000**	**23.0450**	**23.0450**	**5.7000e-004**	**0.0000**	**23.0593**

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	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0588	319.0588	0.0979	0.0000	321.5057
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1779**	**1.6191**	**2.3489**	**3.7300e-003**		**0.0771**	**0.0771**		**0.0715**	**0.0715**	**0.0000**	**319.0588**	**319.0588**	**0.0979**	**0.0000**	**321.5057**

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	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593
Total	**0.0110**	**7.0000e-003**	**0.0743**	**2.5000e-004**	**0.0296**	**2.0000e-004**	**0.0298**	**7.8800e-003**	**1.8000e-004**	**8.0600e-003**	**0.0000**	**23.0450**	**23.0450**	**5.7000e-004**	**0.0000**	**23.0593**

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	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	19.47	234.33	172.42	153,734	153,734
Elementary School	1,024.26	0.00	0.00	1,613,165	1,613,165
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	3,042.93	2,315.43	1,982.62	7,431,536	7,431,536

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Elementary School	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
NaturalGas Unmitigated	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081

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					
City Park	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
Elementary School	355200	1.9200e-003	0.0174	0.0146	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9548	18.9548	3.6000e-004	3.5000e-004	19.0675
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0284**	**0.2437**	**0.1109**	**1.5400e-003**		**0.0196**	**0.0196**		**0.0196**	**0.0196**	**0.0000**	**281.0380**	**281.0380**	**5.3800e-003**	**5.1500e-003**	**282.7081**

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					
City Park	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
Elementary School	355200	1.9200e-003	0.0174	0.0146	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9548	18.9548	3.6000e-004	3.5000e-004	19.0675
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0284**	**0.2437**	**0.1109**	**1.5400e-003**		**0.0196**	**0.0196**		**0.0196**	**0.0196**	**0.0000**	**281.0380**	**281.0380**	**5.3800e-003**	**5.1500e-003**	**282.7081**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	314400	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	314400	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Unmitigated	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0181	1.5701	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5614	2.5614	2.5100e-003	0.0000	2.6241
Total	**16.6876**	**0.2754**	**17.8353**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5350**	**310.4561**	**0.2027**	**0.0171**	**320.6079**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0181	1.5701	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5614	2.5614	2.5100e-003	0.0000	2.6241
Total	**16.6876**	**0.2754**	**17.8353**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5350**	**310.4561**	**0.2027**	**0.0171**	**320.6079**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.9514	0.5086	0.0120	21.2439
Unmitigated	4.9514	0.5086	0.0120	21.2439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.2723	0.0000	0.0000	0.0000	0.0000
Elementary School	1.92485 / 4.94961	0.6107	0.0627	1.4800e-003	2.6200
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239

Total		**4.9515**	**0.5086**	**0.0120**	**21.2439**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.2723	0.0000	0.0000	0.0000	0.0000
Elementary School	1.92485 / 4.94961	0.6107	0.0627	1.4800e-003	2.6200
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.9515**	**0.5086**	**0.0120**	**21.2439**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	79.6151	4.7051	0.0000	197.2430
Unmitigated	79.6151	4.7051	0.0000	197.2430

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Elementary School	144.91	29.4154	1.7384	0.0000	72.8755
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**79.6151**	**4.7051**	**0.0000**	**197.2430**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Elementary School	144.91	29.4154	1.7384	0.0000	72.8755
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**79.6151**	**4.7051**	**0.0000**	**197.2430**

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

Otay Ranch Resort Village Year 6 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	794.00	Student	10.00	60,000.00	0
City Park	10.30	Acre	10.30	448,668.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	254334	0

tblAreaCoating	Area_Nonresidential_Interior	763002	0
tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	152.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	130.00
tblConstructionPhase	NumDays	110.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00

tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblGrading	AcresOfGrading	910.00	102.80
tblGrading	MaterialExported	0.00	1,087,447.00
tblGrading	MaterialImported	0.00	1,087,447.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LandUseSquareFeet	66,381.08	60,000.00
tblLandUse	LotAcreage	1.52	10.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00

tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	106.00	212.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	289.00	578.00
tblTripsAndVMT	WorkerTripNumber	58.00	116.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00

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					
2024	57.9935	311.9919	189.5206	0.6137	23.9509	6.0413	29.9922	9.4239	5.5959	15.0198	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130
Maximum	**57.9935**	**311.9919**	**189.5206**	**0.6137**	**23.9509**	**6.0413**	**29.9922**	**9.4239**	**5.5959**	**15.0198**	**0.0000**	**63,228.6585**	**63,228.6585**	**11.3822**	**0.0000**	**63,513.2130**

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					
2024	57.9935	311.9919	189.5206	0.6137	14.6583	6.0413	20.6997	5.1131	5.5959	10.7090	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130
Maximum	**57.9935**	**311.9919**	**189.5206**	**0.6137**	**14.6583**	**6.0413**	**20.6997**	**5.1131**	**5.5959**	**10.7090**	**0.0000**	**63,228.6585**	**63,228.6585**	**11.3822**	**0.0000**	**63,513.2130**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**38.80**	**0.00**	**30.98**	**45.74**	**0.00**	**28.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Energy	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
Mobile	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000
Total	**341.0470**	**7.8128**	**414.7655**	**0.7281**	**15.8015**	**55.8264**	**71.6279**	**3.8786**	**55.8264**	**59.7049**	**5,832.0635**	**4,174.7413**	**10,006.8048**	**5.4453**	**0.4899**	**10,288.9135**

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	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Energy	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
Mobile	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000
Total	**341.0470**	**7.8128**	**414.7655**	**0.7281**	**15.8015**	**55.8264**	**71.6279**	**3.8786**	**55.8264**	**59.7049**	**5,832.0635**	**4,174.7413**	**10,006.8048**	**5.4453**	**0.4899**	**10,288.9135**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	6/30/2024	5	130	
2	Utilities	Trenching	2/1/2024	7/31/2024	5	130	
3	Building Construction	Building Construction	3/1/2024	12/31/2024	5	219	
4	Architectural Coating	Architectural Coating	5/1/2024	12/31/2024	5	152	
5	Paving	Paving	7/1/2024	12/31/2024	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.8

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 763,002; Non-Residential Outdoor: 254,334; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Cement and Mortar Mixers	8	8.00	9	0.56

Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	271,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	578.00	212.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	116.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2024

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					15.2337	0.0000	15.2337	7.0670	0.0000	7.0670			0.0000			0.0000
Off-Road	9.0148	85.8555	86.2882	0.1720		3.7155	3.7155		3.4183	3.4183		16,650.1827	16,650.1827	5.3850		16,784.8079
Total	**9.0148**	**85.8555**	**86.2882**	**0.1720**	**15.2337**	**3.7155**	**18.9492**	**7.0670**	**3.4183**	**10.4853**		**16,650.1827**	**16,650.1827**	**5.3850**		**16,784.8079**

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	2.4144	164.6543	23.0485	0.2369	0.9567	0.0586	1.0153	0.2660	0.0561	0.3221		26,092.1889	26,092.1889	3.1626		26,171.2533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598
Total	**2.5791**	**164.7504**	**24.2480**	**0.2410**	**1.4167**	**0.0616**	**1.4783**	**0.3880**	**0.0588**	**0.4468**		**26,498.0977**	**26,498.0977**	**3.1726**		**26,577.4131**

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					5.9411	0.0000	5.9411	2.7561	0.0000	2.7561			0.0000			0.0000
Off-Road	9.0148	85.8555	86.2882	0.1720		3.7155	3.7155		3.4183	3.4183	0.0000	16,650.1827	16,650.1827	5.3850		16,784.8078
Total	**9.0148**	**85.8555**	**86.2882**	**0.1720**	**5.9411**	**3.7155**	**9.6567**	**2.7561**	**3.4183**	**6.1744**	**0.0000**	**16,650.1827**	**16,650.1827**	**5.3850**		**16,784.8078**

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	2.4144	164.6543	23.0485	0.2369	0.9567	0.0586	1.0153	0.2660	0.0561	0.3221		26,092.1889	26,092.1889	3.1626		26,171.2533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598
Total	**2.5791**	**164.7504**	**24.2480**	**0.2410**	**1.4167**	**0.0616**	**1.4783**	**0.3880**	**0.0588**	**0.4468**		**26,498.0977**	**26,498.0977**	**3.1726**		**26,577.4131**

3.3 Utilities - 2024

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	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955		3,326.3523	3,326.3523	1.0758		3,353.2475
Total	**1.7246**	**15.1308**	**23.1793**	**0.0344**		**0.8647**	**0.8647**		**0.7955**	**0.7955**		**3,326.3523**	**3,326.3523**	**1.0758**		**3,353.2475**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571

Total	**0.0588**	**0.0343**	**0.4284**	**1.4500e-003**	**0.1643**	**1.0700e-003**	**0.1654**	**0.0436**	**9.8000e-004**	**0.0446**		**144.9674**	**144.9674**	**3.5900e-003**		**145.0571**

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	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955	0.0000	3,326.3523	3,326.3523	1.0758		3,353.2475
Total	**1.7246**	**15.1308**	**23.1793**	**0.0344**		**0.8647**	**0.8647**		**0.7955**	**0.7955**	**0.0000**	**3,326.3523**	**3,326.3523**	**1.0758**		**3,353.2475**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571
Total	**0.0588**	**0.0343**	**0.4284**	**1.4500e-003**	**0.1643**	**1.0700e-003**	**0.1654**	**0.0436**	**9.8000e-004**	**0.0446**		**144.9674**	**144.9674**	**3.5900e-003**		**145.0571**

3.4 Building Construction - 2024

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	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487		5,090.2309	5,090.2309	1.2019		5,120.2772
Total	**2.9306**	**26.7548**	**32.2664**	**0.0537**		**1.2211**	**1.2211**		**1.1487**	**1.1487**		**5,090.2309**	**5,090.2309**	**1.2019**		**5,120.2772**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4434	15.8370	4.6240	0.0548	1.4351	0.0185	1.4536	0.4131	0.0177	0.4308		5,925.5620	5,925.5620	0.3872		5,935.2411
Worker	1.6998	0.9923	12.3813	0.0420	4.7481	0.0309	4.7790	1.2594	0.0284	1.2879		4,189.5585	4,189.5585	0.1036		4,192.1496
Total	**2.1432**	**16.8293**	**17.0052**	**0.0968**	**6.1833**	**0.0493**	**6.2326**	**1.6726**	**0.0461**	**1.7186**		**10,115.1205**	**10,115.1205**	**0.4908**		**10,127.3907**

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	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487	0.0000	5,090.2309	5,090.2309	1.2019		5,120.2772
Total	**2.9306**	**26.7548**	**32.2664**	**0.0537**		**1.2211**	**1.2211**		**1.1487**	**1.1487**	**0.0000**	**5,090.2309**	**5,090.2309**	**1.2019**		**5,120.2772**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4434	15.8370	4.6240	0.0548	1.4351	0.0185	1.4536	0.4131	0.0177	0.4308		5,925.5620	5,925.5620	0.3872		5,935.2411
Worker	1.6998	0.9923	12.3813	0.0420	4.7481	0.0309	4.7790	1.2594	0.0284	1.2879		4,189.5585	4,189.5585	0.1036		4,192.1496
Total	**2.1432**	**16.8293**	**17.0052**	**0.0968**	**6.1833**	**0.0493**	**6.2326**	**1.6726**	**0.0461**	**1.7186**		**10,115.1205**	**10,115.1205**	**0.4908**		**10,127.3907**

3.5 Architectural Coating - 2024

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	38.8398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218		562.8961	562.8961	0.0317		563.6885
Total	**39.2013**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**		**562.8961**	**562.8961**	**0.0317**		**563.6885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311
Total	**0.3411**	**0.1991**	**2.4848**	**8.4300e-003**	**0.9529**	**6.2000e-003**	**0.9591**	**0.2528**	**5.7000e-003**	**0.2585**		**840.8111**	**840.8111**	**0.0208**		**841.3311**

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	38.8398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218	0.0000	562.8961	562.8961	0.0317		563.6885
Total	**39.2013**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**	**0.0000**	**562.8961**	**562.8961**	**0.0317**		**563.6885**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311
Total	**0.3411**	**0.1991**	**2.4848**	**8.4300e-003**	**0.9529**	**6.2000e-003**	**0.9591**	**0.2528**	**5.7000e-003**	**0.2585**		**840.8111**	**840.8111**	**0.0208**		**841.3311**

3.6 Paving - 2024

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	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833		5,328.8264	5,328.8264	1.6347		5,369.6940
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6960**	**24.5325**	**35.5888**	**0.0566**		**1.1676**	**1.1676**		**1.0833**	**1.0833**		**5,328.8264**	**5,328.8264**	**1.6347**		**5,369.6940**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598

Total	**0.1647**	**0.0961**	**1.1996**	**4.0700e-003**	**0.4600**	**2.9900e-003**	**0.4630**	**0.1220**	**2.7500e-003**	**0.1248**		**405.9088**	**405.9088**	**0.0100**		**406.1598**

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	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833	0.0000	5,328.8264	5,328.8264	1.6347		5,369.6940
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6960**	**24.5325**	**35.5888**	**0.0566**		**1.1676**	**1.1676**		**1.0833**	**1.0833**	**0.0000**	**5,328.8264**	**5,328.8264**	**1.6347**		**5,369.6940**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598
Total	**0.1647**	**0.0961**	**1.1996**	**4.0700e-003**	**0.4600**	**2.9900e-003**	**0.4630**	**0.1220**	**2.7500e-003**	**0.1248**		**405.9088**	**405.9088**	**0.0100**		**406.1598**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	19.47	234.33	172.42	153,734	153,734
Elementary School	1,024.26	0.00	0.00	1,613,165	1,613,165
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	3,042.93	2,315.43	1,982.62	7,431,536	7,431,536

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Elementary School	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
NaturalGas Unmitigated	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Elementary School	973.151	0.0105	0.0954	0.0801	5.7000e-004		7.2500e-003	7.2500e-003		7.2500e-003	7.2500e-003		114.4883	114.4883	2.1900e-003	2.1000e-003	115.1687
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1556**	**1.3354**	**0.6078**	**8.4800e-003**		**0.1075**	**0.1075**		**0.1075**	**0.1075**		**1,697.4869**	**1,697.4869**	**0.0325**	**0.0311**	**1,707.5742**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Elementary School	0.973151	0.0105	0.0954	0.0801	5.7000e-004		7.2500e-003	7.2500e-003		7.2500e-003	7.2500e-003		114.4883	114.4883	2.1900e-003	2.1000e-003	115.1687
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1556**	**1.3354**	**0.6078**	**8.4800e-003**		**0.1075**	**0.1075**		**0.1075**	**0.1075**		**1,697.4869**	**1,697.4869**	**0.0325**	**0.0311**	**1,707.5742**

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	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Unmitigated	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.9747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5338	0.2012	17.4454	9.2000e-004		0.0960	0.0960		0.0960	0.0960		31.3720	31.3720	0.0307		32.1395
Total	**340.8914**	**6.4774**	**414.1577**	**0.7197**		**55.7189**	**55.7189**		**55.7189**	**55.7189**	**5,832.0635**	**2,477.2544**	**8,309.3178**	**5.4127**	**0.4587**	**8,581.3392**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.9747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5338	0.2012	17.4454	9.2000e-004		0.0960	0.0960		0.0960	0.0960		31.3720	31.3720	0.0307		32.1395
Total	**340.8914**	**6.4774**	**414.1577**	**0.7197**		**55.7189**	**55.7189**		**55.7189**	**55.7189**	**5,832.0635**	**2,477.2544**	**8,309.3178**	**5.4127**	**0.4587**	**8,581.3392**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 7 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 7 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.90	Acre	2.90	126,324.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

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					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	63162	0
tblAreaCoating	Area_Nonresidential_Interior	189486	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	220.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	AcresOfGrading	903.00	80.20
tblGrading	MaterialExported	0.00	848,378.00
tblGrading	MaterialImported	0.00	848,378.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	43.00	86.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	129.00	258.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	3.2115	18.8170	15.0632	0.0396	1.3704	0.4438	1.8142	0.5664	0.4120	0.9784	0.0000	3,629.7863	3,629.7863	0.7645	0.0000	3,648.8978
Maximum	**3.2115**	**18.8170**	**15.0632**	**0.0396**	**1.3704**	**0.4438**	**1.8142**	**0.5664**	**0.4120**	**0.9784**	**0.0000**	**3,629.7863**	**3,629.7863**	**0.7645**	**0.0000**	**3,648.8978**

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					
2025	3.2115	18.8170	15.0631	0.0396	0.7978	0.4438	1.2416	0.2922	0.4120	0.7041	0.0000	3,629.7839	3,629.7839	0.7645	0.0000	3,648.8954
Maximum	**3.2115**	**18.8170**	**15.0631**	**0.0396**	**0.7978**	**0.4438**	**1.2416**	**0.2922**	**0.4120**	**0.7041**	**0.0000**	**3,629.7839**	**3,629.7839**	**0.7645**	**0.0000**	**3,648.8954**

	ROG	NOx	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**	**41.78**	**0.00**	**31.56**	**48.42**	**0.00**	**28.03**	**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)
		Highest		

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	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0698	0.0000	50.0698	2.9590	0.0000	124.0457
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.2200**	**0.5016**	**17.9225**	**0.0310**	**1.8349**	**2.3075**	**4.1424**	**0.4504**	**2.3075**	**2.7579**	**271.3317**	**355.6038**	**626.9355**	**3.6125**	**0.0324**	**726.9026**

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	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0698	0.0000	50.0698	2.9590	0.0000	124.0457
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**15.2200**	**0.5016**	**17.9225**	**0.0310**	**1.8349**	**2.3075**	**4.1424**	**0.4504**	**2.3075**	**2.7579**	**271.3317**	**355.6038**	**626.9355**	**3.6125**	**0.0324**	**726.9026**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Utilities	Trenching	2/1/2025	7/31/2025	5	130	
3	Building Construction	Building Construction	3/1/2025	12/31/2025	5	220	
4	Paving	Paving	7/1/2025	12/31/2025	5	132	
5	Architectural Coating	Architectural Coating	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 80.2

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 189,486; Non-Residential Outdoor: 63,162; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	212,095.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	258.00	86.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

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					0.9386	0.0000	0.9386	0.4497	0.0000	0.4497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9896	973.9896	0.3150	0.0000	981.8648
Total	**0.5198**	**4.6817**	**5.2129**	**0.0111**	**0.9386**	**0.1989**	**1.1375**	**0.4497**	**0.1830**	**0.6327**	**0.0000**	**973.9896**	**973.9896**	**0.3150**	**0.0000**	**981.8648**

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	0.1252	8.1473	1.3177	0.0113	0.0476	3.0100e-003	0.0506	0.0133	2.8800e-003	0.0161	0.0000	1,130.9535	1,130.9535	0.1472	0.0000	1,134.6326
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	0.0102	6.3100e-003	0.0677	2.4000e-004	0.0290	1.9000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	21.6108	21.6108	5.1000e-004	0.0000	21.6237
Total	**0.1355**	**8.1536**	**1.3854**	**0.0115**	**0.0765**	**3.2000e-003**	**0.0797**	**0.0210**	**3.0500e-003**	**0.0240**	**0.0000**	**1,152.5643**	**1,152.5643**	**0.1477**	**0.0000**	**1,156.2563**

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					0.3661	0.0000	0.3661	0.1754	0.0000	0.1754	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637
Total	**0.5198**	**4.6817**	**5.2129**	**0.0111**	**0.3661**	**0.1989**	**0.5650**	**0.1754**	**0.1830**	**0.3584**	**0.0000**	**973.9885**	**973.9885**	**0.3150**	**0.0000**	**981.8637**

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	0.1252	8.1473	1.3177	0.0113	0.0476	3.0100e-003	0.0506	0.0133	2.8800e-003	0.0161	0.0000	1,130.9535	1,130.9535	0.1472	0.0000	1,134.6326
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	0.0102	6.3100e-003	0.0677	2.4000e-004	0.0290	1.9000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	21.6108	21.6108	5.1000e-004	0.0000	21.6237
Total	**0.1355**	**8.1536**	**1.3854**	**0.0115**	**0.0765**	**3.2000e-003**	**0.0797**	**0.0210**	**3.0500e-003**	**0.0240**	**0.0000**	**1,152.5643**	**1,152.5643**	**0.1477**	**0.0000**	**1,156.2563**

3.3 Utilities - 2025

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840
Total	**0.1028**	**0.8848**	**1.4897**	**2.2200e-003**		**0.0488**	**0.0488**		**0.0449**	**0.0449**	**0.0000**	**194.7097**	**194.7097**	**0.0630**	**0.0000**	**196.2840**

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	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228
Total	**3.6500e-003**	**2.2500e-003**	**0.0242**	**9.0000e-005**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**6.0000e-005**	**2.8100e-003**	**0.0000**	**7.7182**	**7.7182**	**1.8000e-004**	**0.0000**	**7.7228**

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838
Total	**0.1028**	**0.8848**	**1.4897**	**2.2200e-003**		**0.0488**	**0.0488**		**0.0449**	**0.0449**	**0.0000**	**194.7095**	**194.7095**	**0.0630**	**0.0000**	**196.2838**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228
Total	**3.6500e-003**	**2.2500e-003**	**0.0242**	**9.0000e-005**	**0.0103**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**6.0000e-005**	**2.8100e-003**	**0.0000**	**7.7182**	**7.7182**	**1.8000e-004**	**0.0000**	**7.7228**

3.4 Building Construction - 2025

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4913**	**503.4913**	**0.1182**	**0.0000**	**506.4455**

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	0.0195	0.6943	0.2101	2.3800e-003	0.0622	8.1000e-004	0.0630	0.0180	7.7000e-004	0.0187	0.0000	233.7075	233.7075	0.0157	0.0000	234.1006
Worker	0.0796	0.0491	0.5273	1.8600e-003	0.2255	1.4800e-003	0.2270	0.0599	1.3600e-003	0.0613	0.0000	168.2557	168.2557	4.0100e-003	0.0000	168.3559
Total	**0.0991**	**0.7434**	**0.7374**	**4.2400e-003**	**0.2877**	**2.2900e-003**	**0.2900**	**0.0779**	**2.1300e-003**	**0.0800**	**0.0000**	**401.9632**	**401.9632**	**0.0197**	**0.0000**	**402.4565**

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4907**	**503.4907**	**0.1182**	**0.0000**	**506.4449**

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	0.0195	0.6943	0.2101	2.3800e-003	0.0622	8.1000e-004	0.0630	0.0180	7.7000e-004	0.0187	0.0000	233.7075	233.7075	0.0157	0.0000	234.1006
Worker	0.0796	0.0491	0.5273	1.8600e-003	0.2255	1.4800e-003	0.2270	0.0599	1.3600e-003	0.0613	0.0000	168.2557	168.2557	4.0100e-003	0.0000	168.3559
Total	**0.0991**	**0.7434**	**0.7374**	**4.2400e-003**	**0.2877**	**2.2900e-003**	**0.2900**	**0.0779**	**2.1300e-003**	**0.0800**	**0.0000**	**401.9632**	**401.9632**	**0.0197**	**0.0000**	**402.4565**

3.5 Paving - 2025

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9999**	**318.9999**	**0.0979**	**0.0000**	**321.4463**

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	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266

Total	**0.0105**	**6.4500e-003**	**0.0693**	**2.4000e-004**	**0.0296**	**1.9000e-004**	**0.0298**	**7.8800e-003**	**1.8000e-004**	**8.0500e-003**	**0.0000**	**22.1134**	**22.1134**	**5.3000e-004**	**0.0000**	**22.1266**

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9995**	**318.9995**	**0.0979**	**0.0000**	**321.4459**

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	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266
Total	**0.0105**	**6.4500e-003**	**0.0693**	**2.4000e-004**	**0.0296**	**1.9000e-004**	**0.0298**	**7.8800e-003**	**1.8000e-004**	**8.0500e-003**	**0.0000**	**22.1134**	**22.1134**	**5.3000e-004**	**0.0000**	**22.1266**

3.6 Architectural Coating - 2025

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	1.8442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	**1.8668**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7030**	**33.7030**	**1.8400e-003**	**0.0000**	**33.7489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461
Total	**9.7200e-003**	**5.9900e-003**	**0.0644**	**2.3000e-004**	**0.0275**	**1.8000e-004**	**0.0277**	**7.3100e-003**	**1.7000e-004**	**7.4800e-003**	**0.0000**	**20.5339**	**20.5339**	**4.9000e-004**	**0.0000**	**20.5461**

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	1.8442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	**1.8668**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7029**	**33.7029**	**1.8400e-003**	**0.0000**	**33.7489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461
Total	**9.7200e-003**	**5.9900e-003**	**0.0644**	**2.3000e-004**	**0.0275**	**1.8000e-004**	**0.0277**	**7.3100e-003**	**1.7000e-004**	**7.4800e-003**	**0.0000**	**20.5339**	**20.5339**	**4.9000e-004**	**0.0000**	**20.5461**

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	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5.48	65.98	48.55	43,284	43,284
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,004.68	2,147.08	1,858.75	5,707,921	5,707,921

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Unmitigated	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0472	0.0180	1.5610	8.0000e-005		8.6200e-003	8.6200e-003		8.6200e-003	8.6200e-003	0.0000	2.5471	2.5471	2.4600e-003	0.0000	2.6085
Total	**15.1935**	**0.2753**	**17.8262**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5207**	**310.4418**	**0.2026**	**0.0171**	**320.5924**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0472	0.0180	1.5610	8.0000e-005		8.6200e-003	8.6200e-003		8.6200e-003	8.6200e-003	0.0000	2.5471	2.5471	2.4600e-003	0.0000	2.6085
Total	**15.1935**	**0.2753**	**17.8262**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5207**	**310.4418**	**0.2026**	**0.0171**	**320.5924**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 3.4553	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.4553	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0698	2.9590	0.0000	124.0457

Unmitigated	50.0698	2.9590	0.0000	124.0457

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.25	0.0508	3.0000e-003	0.0000	0.1257
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0698**	**2.9590**	**0.0000**	**124.0457**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.25	0.0508	3.0000e-003	0.0000	0.1257
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0698**	**2.9590**	**0.0000**	**124.0457**

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

Otay Ranch Resort Village Year 7 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.90	Acre	2.90	126,324.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

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					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	63162	0
tblAreaCoating	Area_Nonresidential_Interior	189486	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	220.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	AcresOfGrading	903.00	80.20
tblGrading	MaterialExported	0.00	848,378.00
tblGrading	MaterialImported	0.00	848,378.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	43.00	86.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	129.00	258.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

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					
2025	36.3878	245.7583	162.6239	0.4891	18.6298	4.9566	23.5864	8.0760	4.5836	12.6597	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4637
Maximum	**36.3878**	**245.7583**	**162.6239**	**0.4891**	**18.6298**	**4.9566**	**23.5864**	**8.0760**	**4.5836**	**12.6597**	**0.0000**	**50,049.0902**	**50,049.0902**	**10.2549**	**0.0000**	**50,305.4637**

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					
2025	36.3878	245.7583	162.6239	0.4891	9.7532	4.9566	14.7098	3.8234	4.5836	8.4070	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4636
Maximum	**36.3878**	**245.7583**	**162.6239**	**0.4891**	**9.7532**	**4.9566**	**14.7098**	**3.8234**	**4.5836**	**8.4070**	**0.0000**	**50,049.0902**	**50,049.0902**	**10.2549**	**0.0000**	**50,305.4636**

	ROG	NOx	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**	**47.65**	**0.00**	**37.63**	**52.66**	**0.00**	**33.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Total	**332.8445**	**7.7163**	**414.5842**	**0.7276**	**11.0473**	**55.8189**	**66.8662**	**2.7116**	**55.8189**	**58.5306**	**5,832.0635**	**4,060.0776**	**9,892.1411**	**5.4425**	**0.4878**	**10,173.5544**

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	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Total	**332.8445**	**7.7163**	**414.5842**	**0.7276**	**11.0473**	**55.8189**	**66.8662**	**2.7116**	**55.8189**	**58.5306**	**5,832.0635**	**4,060.0776**	**9,892.1411**	**5.4425**	**0.4878**	**10,173.5544**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Utilities	Trenching	2/1/2025	7/31/2025	5	130	
3	Building Construction	Building Construction	3/1/2025	12/31/2025	5	220	
4	Paving	Paving	7/1/2025	12/31/2025	5	132	
5	Architectural Coating	Architectural Coating	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 80.2

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 189,486; Non-Residential Outdoor: 63,162; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	212,095.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	258.00	86.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

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					14.5518	0.0000	14.5518	6.9715	0.0000	6.9715			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**14.5518**	**3.0843**	**17.6360**	**6.9715**	**2.8375**	**9.8091**		**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	1.8449	127.7761	18.0824	0.1837	0.7521	0.0415	0.7937	0.2091	0.0397	0.2489		20,272.1379	20,272.1379	2.3894		20,331.8716
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	**2.0020**	**127.8647**	**19.2029**	**0.1876**	**1.2122**	**0.0445**	**1.2566**	**0.3312**	**0.0424**	**0.3736**		**20,661.6244**	**20,661.6244**	**2.3986**		**20,721.5899**

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					5.6752	0.0000	5.6752	2.7189	0.0000	2.7189			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**5.6752**	**3.0843**	**8.7595**	**2.7189**	**2.8375**	**5.5564**	**0.0000**	**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	1.8449	127.7761	18.0824	0.1837	0.7521	0.0415	0.7937	0.2091	0.0397	0.2489		20,272.1379	20,272.1379	2.3894		20,331.8716
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	**2.0020**	**127.8647**	**19.2029**	**0.1876**	**1.2122**	**0.0445**	**1.2566**	**0.3312**	**0.0424**	**0.3736**		**20,661.6244**	**20,661.6244**	**2.3986**		**20,721.5899**

3.3 Utilities - 2025

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**		**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851
Total	**0.0561**	**0.0317**	**0.4002**	**1.3900e-003**	**0.1643**	**1.0500e-003**	**0.1654**	**0.0436**	**9.7000e-004**	**0.0446**		**139.1023**	**139.1023**	**3.3100e-003**		**139.1851**

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**	**0.0000**	**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851
Total	**0.0561**	**0.0317**	**0.4002**	**1.3900e-003**	**0.1643**	**1.0500e-003**	**0.1654**	**0.0436**	**9.7000e-004**	**0.0446**		**139.1023**	**139.1023**	**3.3100e-003**		**139.1851**

3.4 Building Construction - 2025

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**		**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1746	6.3316	1.8391	0.0221	0.5822	7.2800e-003	0.5895	0.1676	6.9600e-003	0.1746		2,388.9766	2,388.9766	0.1555		2,392.8641
Worker	0.7239	0.4084	5.1624	0.0180	2.1194	0.0136	2.1330	0.5622	0.0125	0.5747		1,794.4200	1,794.4200	0.0427		1,795.4881
Total	**0.8985**	**6.7400**	**7.0015**	**0.0401**	**2.7016**	**0.0209**	**2.7224**	**0.7298**	**0.0195**	**0.7492**		**4,183.3966**	**4,183.3966**	**0.1982**		**4,188.3522**

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**	**0.0000**	**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1746	6.3316	1.8391	0.0221	0.5822	7.2800e-003	0.5895	0.1676	6.9600e-003	0.1746		2,388.9766	2,388.9766	0.1555		2,392.8641
Worker	0.7239	0.4084	5.1624	0.0180	2.1194	0.0136	2.1330	0.5622	0.0125	0.5747		1,794.4200	1,794.4200	0.0427		1,795.4881

Total	**0.8985**	**6.7400**	**7.0015**	**0.0401**	**2.7016**	**0.0209**	**2.7224**	**0.7298**	**0.0195**	**0.7492**		**4,183.3966**	**4,183.3966**	**0.1982**		**4,188.3522**

3.5 Paving - 2025

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**		**5,327.8356**	**5,327.8356**	**1.6344**		**5,368.6951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	**0.1571**	**0.0887**	**1.1205**	**3.9100e-003**	**0.4600**	**2.9400e-003**	**0.4630**	**0.1220**	**2.7100e-003**	**0.1247**		**389.4865**	**389.4865**	**9.2700e-003**		**389.7183**

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**	**0.0000**	**5,327.8355**	**5,327.8355**	**1.6344**		**5,368.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	**0.1571**	**0.0887**	**1.1205**	**3.9100e-003**	**0.4600**	**2.9400e-003**	**0.4630**	**0.1220**	**2.7100e-003**	**0.1247**		**389.4865**	**389.4865**	**9.2700e-003**		**389.7183**

3.6 Architectural Coating - 2025

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	27.9427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**28.2845**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813
Total	**0.1459**	**0.0823**	**1.0405**	**3.6300e-003**	**0.4272**	**2.7300e-003**	**0.4299**	**0.1133**	**2.5200e-003**	**0.1158**		**361.6660**	**361.6660**	**8.6100e-003**		**361.8813**

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	27.9427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**28.2845**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813
Total	**0.1459**	**0.0823**	**1.0405**	**3.6300e-003**	**0.4272**	**2.7300e-003**	**0.4299**	**0.1133**	**2.5200e-003**	**0.1158**		**361.6660**	**361.6660**	**8.6100e-003**		**361.8813**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5.48	65.98	48.55	43,284	43,284
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,004.68	2,147.08	1,858.75	5,707,921	5,707,921

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

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	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Unmitigated	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.7925					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5239	0.2000	17.3442	9.1000e-004		0.0958	0.0958		0.0958	0.0958		31.1966	31.1966	0.0301		31.9491
Total	**332.6994**	**6.4763**	**414.0565**	**0.7196**		**55.7187**	**55.7187**		**55.7187**	**55.7187**	**5,832.0635**	**2,477.0790**	**8,309.1424**	**5.4121**	**0.4587**	**8,581.1488**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.7925					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5239	0.2000	17.3442	9.1000e-004		0.0958	0.0958		0.0958	0.0958		31.1966	31.1966	0.0301		31.9491
Total	**332.6994**	**6.4763**	**414.0565**	**0.7196**		**55.7187**	**55.7187**		**55.7187**	**55.7187**	**5,832.0635**	**2,477.0790**	**8,309.1424**	**5.4121**	**0.4587**	**8,581.1488**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 8 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 8 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
City Park	2.30	Acre	2.30	100,188.00	0
Condo/Townhouse	57.00	Dwelling Unit	8.30	57,000.00	163
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601
Strip Mall	20.00	1000sqft	8.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	200.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00

tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	65094	0
tblAreaCoating	Area_Nonresidential_Interior	195282	0
tblAreaCoating	Area_Residential_Exterior	293625	0
tblAreaCoating	Area_Residential_Interior	880875	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	131.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	129.00
tblConstructionPhase	NumDays	110.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	903.00	100.50
tblGrading	MaterialExported	0.00	1,063,117.00
tblGrading	MaterialImported	0.00	1,063,117.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	3.56	8.30
tblLandUse	LotAcreage	68.18	58.70
tblLandUse	LotAcreage	0.46	8.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00

tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	50.00	96.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	168.00	330.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	34.00	66.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	4.1987	20.8573	15.5644	0.0431	1.5026	0.4456	1.9482	0.5968	0.4136	1.0104	0.0000	3,973.4697	3,973.4697	0.7983	0.0000	3,993.4278
Maximum	**4.1987**	**20.8573**	**15.5644**	**0.0431**	**1.5026**	**0.4456**	**1.9482**	**0.5968**	**0.4136**	**1.0104**	**0.0000**	**3,973.4697**	**3,973.4697**	**0.7983**	**0.0000**	**3,993.4278**

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					
2026	4.1987	20.8573	15.5644	0.0431	0.9051	0.4456	1.3507	0.3190	0.4136	0.7326	0.0000	3,973.4673	3,973.4673	0.7983	0.0000	3,993.4253
Maximum	**4.1987**	**20.8573**	**15.5644**	**0.0431**	**0.9051**	**0.4456**	**1.3507**	**0.3190**	**0.4136**	**0.7326**	**0.0000**	**3,973.4673**	**3,973.4673**	**0.7983**	**0.0000**	**3,993.4253**

	ROG	NOx	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**	**39.76**	**0.00**	**30.67**	**46.55**	**0.00**	**27.49**	**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)
		Highest		

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	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106
Energy	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818
Mobile	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	61.5327	0.0000	61.5327	3.6365	0.0000	152.4445
Water						0.0000	0.0000		0.0000	0.0000	6.5529	0.0000	6.5529	0.6730	0.0159	28.1147
Total	**19.0526**	**0.6262**	**22.7858**	**0.0393**	**2.5939**	**2.9328**	**5.5267**	**0.6367**	**2.9328**	**3.5695**	**343.8852**	**437.8915**	**781.7768**	**4.5733**	**0.0434**	**909.0516**

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	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106
Energy	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818
Mobile	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	61.5327	0.0000	61.5327	3.6365	0.0000	152.4445
Water						0.0000	0.0000		0.0000	0.0000	6.5529	0.0000	6.5529	0.6730	0.0159	28.1147
Total	**19.0526**	**0.6262**	**22.7858**	**0.0393**	**2.5939**	**2.9328**	**5.5267**	**0.6367**	**2.9328**	**3.5695**	**343.8852**	**437.8915**	**781.7768**	**4.5733**	**0.0434**	**909.0516**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2026	6/30/2026	5	129	
2	Utilities	Trenching	2/1/2026	7/31/2026	5	129	
3	Building Construction	Building Construction	3/1/2026	12/31/2026	5	219	
4	Paving	Paving	7/1/2026	12/31/2026	5	131	
5	Architectural Coating	Architectural Coating	7/1/2026	12/31/2026	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 100.5

Acres of Paving: 0

Residential Indoor: 880,875; Residential Outdoor: 293,625; Non-Residential Indoor: 195,282; Non-Residential Outdoor: 65,094; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	265,780.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	330.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2026

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					0.9795	0.0000	0.9795	0.4554	0.0000	0.4554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9896	973.9896	0.3150	0.0000	981.8648
Total	**0.5198**	**4.6817**	**5.2129**	**0.0111**	**0.9795**	**0.1989**	**1.1785**	**0.4554**	**0.1830**	**0.6384**	**0.0000**	**973.9896**	**973.9896**	**0.3150**	**0.0000**	**981.8648**

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	0.1532	10.0855	1.6569	0.0140	0.0596	3.4000e-003	0.0630	0.0166	3.2500e-003	0.0199	0.0000	1,401.1740	1,401.1740	0.1775	0.0000	1,405.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8100e-003	5.8700e-003	0.0636	2.3000e-004	0.0290	1.8000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	20.8194	20.8194	4.8000e-004	0.0000	20.8314
Total	**0.1630**	**10.0914**	**1.7206**	**0.0142**	**0.0886**	**3.5800e-003**	**0.0921**	**0.0243**	**3.4200e-003**	**0.0277**	**0.0000**	**1,421.9934**	**1,421.9934**	**0.1780**	**0.0000**	**1,426.4422**

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					0.3820	0.0000	0.3820	0.1776	0.0000	0.1776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637

Total	**0.5198**	**4.6817**	**5.2129**	**0.0111**	**0.3820**	**0.1989**	**0.5810**	**0.1776**	**0.1830**	**0.3606**	**0.0000**	**973.9885**	**973.9885**	**0.3150**	**0.0000**	**981.8637**

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	0.1532	10.0855	1.6569	0.0140	0.0596	3.4000e-003	0.0630	0.0166	3.2500e-003	0.0199	0.0000	1,401.1740	1,401.1740	0.1775	0.0000	1,405.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8100e-003	5.8700e-003	0.0636	2.3000e-004	0.0290	1.8000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	20.8194	20.8194	4.8000e-004	0.0000	20.8314
Total	**0.1630**	**10.0914**	**1.7206**	**0.0142**	**0.0886**	**3.5800e-003**	**0.0921**	**0.0243**	**3.4200e-003**	**0.0277**	**0.0000**	**1,421.9934**	**1,421.9934**	**0.1780**	**0.0000**	**1,426.4422**

3.3 Utilities - 2026

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056
Total	**0.1036**	**0.8917**	**1.5012**	**2.2300e-003**		**0.0491**	**0.0491**		**0.0452**	**0.0452**	**0.0000**	**196.2191**	**196.2191**	**0.0635**	**0.0000**	**197.8056**

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	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975
Total	**3.5300e-003**	**2.1100e-003**	**0.0229**	**8.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**7.4931**	**7.4931**	**1.7000e-004**	**0.0000**	**7.4975**

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054
Total	**0.1036**	**0.8917**	**1.5012**	**2.2300e-003**		**0.0491**	**0.0491**		**0.0452**	**0.0452**	**0.0000**	**196.2188**	**196.2188**	**0.0635**	**0.0000**	**197.8054**

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	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975
Total	**3.5300e-003**	**2.1100e-003**	**0.0229**	**8.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**7.4931**	**7.4931**	**1.7000e-004**	**0.0000**	**7.4975**

3.4 Building Construction - 2026

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	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8009	505.8009	0.1187	0.0000	508.7687
Total	**0.2982**	**2.7177**	**3.5153**	**5.8800e-003**		**0.1150**	**0.1150**		**0.1082**	**0.1082**	**0.0000**	**505.8009**	**505.8009**	**0.1187**	**0.0000**	**508.7687**

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	0.0213	0.7675	0.2323	2.6500e-003	0.0698	8.8000e-004	0.0707	0.0201	8.4000e-004	0.0210	0.0000	260.5793	260.5793	0.0175	0.0000	261.0155
Worker	0.0981	0.0587	0.6367	2.3000e-003	0.2898	1.8400e-003	0.2916	0.0770	1.6900e-003	0.0787	0.0000	208.2802	208.2802	4.8000e-003	0.0000	208.4002
Total	**0.1194**	**0.8262**	**0.8690**	**4.9500e-003**	**0.3595**	**2.7200e-003**	**0.3623**	**0.0971**	**2.5300e-003**	**0.0997**	**0.0000**	**468.8595**	**468.8595**	**0.0223**	**0.0000**	**469.4157**

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	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8003	505.8003	0.1187	0.0000	508.7681
Total	**0.2982**	**2.7177**	**3.5153**	**5.8800e-003**		**0.1150**	**0.1150**		**0.1082**	**0.1082**	**0.0000**	**505.8003**	**505.8003**	**0.1187**	**0.0000**	**508.7681**

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	0.0213	0.7675	0.2323	2.6500e-003	0.0698	8.8000e-004	0.0707	0.0201	8.4000e-004	0.0210	0.0000	260.5793	260.5793	0.0175	0.0000	261.0155
Worker	0.0981	0.0587	0.6367	2.3000e-003	0.2898	1.8400e-003	0.2916	0.0770	1.6900e-003	0.0787	0.0000	208.2802	208.2802	4.8000e-003	0.0000	208.4002
Total	**0.1194**	**0.8262**	**0.8690**	**4.9500e-003**	**0.3595**	**2.7200e-003**	**0.3623**	**0.0971**	**2.5300e-003**	**0.0997**	**0.0000**	**468.8595**	**468.8595**	**0.0223**	**0.0000**	**469.4157**

3.5 Paving - 2026

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9999**	**318.9999**	**0.0979**	**0.0000**	**321.4463**

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	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158
Total	**0.0100**	**6.0000e-003**	**0.0651**	**2.4000e-004**	**0.0296**	**1.9000e-004**	**0.0298**	**7.8800e-003**	**1.7000e-004**	**8.0500e-003**	**0.0000**	**21.3036**	**21.3036**	**4.9000e-004**	**0.0000**	**21.3158**

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9995**	**318.9995**	**0.0979**	**0.0000**	**321.4459**

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	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158
Total	**0.0100**	**6.0000e-003**	**0.0651**	**2.4000e-004**	**0.0296**	**1.9000e-004**	**0.0298**	**7.8800e-003**	**1.7000e-004**	**8.0500e-003**	**0.0000**	**21.3036**	**21.3036**	**4.9000e-004**	**0.0000**	**21.3158**

3.6 Architectural Coating - 2026

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	2.7799					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	**2.8024**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7030**	**33.7030**	**1.8400e-003**	**0.0000**	**33.7489**

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	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222
Total	**0.0118**	**7.0700e-003**	**0.0768**	**2.8000e-004**	**0.0349**	**2.2000e-004**	**0.0352**	**9.2800e-003**	**2.0000e-004**	**9.4900e-003**	**0.0000**	**25.1078**	**25.1078**	**5.8000e-004**	**0.0000**	**25.1222**

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	2.7799					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	**2.8024**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7029**	**33.7029**	**1.8400e-003**	**0.0000**	**33.7489**

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	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222
Total	**0.0118**	**7.0700e-003**	**0.0768**	**2.8000e-004**	**0.0349**	**2.2000e-004**	**0.0352**	**9.2800e-003**	**2.0000e-004**	**9.4900e-003**	**0.0000**	**25.1078**	**25.1078**	**5.8000e-004**	**0.0000**	**25.1222**

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	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.35	52.33	38.50	34,329	34,329
Condo/Townhouse	331.17	323.19	275.88	919,783	919,783
General Office Building	110.30	24.60	10.50	200,261	200,261
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	3,331.42	3,322.02	2,543.68	8,068,944	8,068,944

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Condo/Townhouse	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818

NaturalGas Unmitigated	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818

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					
City Park	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
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.0322**	**0.2762**	**0.1225**	**1.7500e-003**		**0.0223**	**0.0223**		**0.0223**	**0.0223**	**0.0000**	**318.9862**	**318.9862**	**6.1200e-003**	**5.8400e-003**	**320.8818**

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					
City Park	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
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.0322**	**0.2762**	**0.1225**	**1.7500e-003**		**0.0223**	**0.0223**		**0.0223**	**0.0223**	**0.0000**	**318.9862**	**318.9862**	**6.1200e-003**	**5.8400e-003**	**320.8818**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	0.0000	0.0000	0.0000	0.0000
General Office Building	134400	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	0.0000	0.0000	0.0000	0.0000
General Office Building	134400	0.0000	0.0000	0.0000	0.0000

Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106
Unmitigated	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2073					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	16.7532	0.3272	20.6801	0.0375		2.8995	2.8995		2.8995	2.8995	275.7997	115.6664	391.4661	0.2545	0.0217	404.2938
Landscaping	0.0598	0.0229	1.9832	1.0000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2390	3.2390	3.1200e-003	0.0000	3.3169
Total	**19.0203**	**0.3500**	**22.6633**	**0.0376**		**2.9105**	**2.9105**		**2.9105**	**2.9105**	**275.7997**	**118.9053**	**394.7051**	**0.2576**	**0.0217**	**407.6106**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2073					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	16.7532	0.3272	20.6801	0.0375		2.8995	2.8995		2.8995	2.8995	275.7997	115.6664	391.4661	0.2545	0.0217	404.2938
Landscaping	0.0598	0.0229	1.9832	1.0000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2390	3.2390	3.1200e-003	0.0000	3.3169
Total	**19.0203**	**0.3500**	**22.6633**	**0.0376**		**2.9105**	**2.9105**		**2.9105**	**2.9105**	**275.7997**	**118.9053**	**394.7051**	**0.2576**	**0.0217**	**407.6106**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.5529	0.6730	0.0159	28.1147

Unmitigated	6.5529	0.6730	0.0159	28.1147

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.74041	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.71378 / 2.3413	1.1782	0.1210	2.8600e-003	5.0551
General Office Building	1.77734 / 1.08934	0.5639	0.0579	1.3700e-003	2.4192
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		**6.5529**	**0.6730**	**0.0159**	**28.1147**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.74041	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.71378 / 2.3413	1.1782	0.1210	2.8600e-003	5.0551
General Office Building	1.77734 / 1.08934	0.5639	0.0579	1.3700e-003	2.4192

Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		**6.5529**	**0.6730**	**0.0159**	**28.1147**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	61.5327	3.6365	0.0000	152.4445
Unmitigated	61.5327	3.6365	0.0000	152.4445

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.2	0.0406	2.4000e-003	0.0000	0.1006
Condo/Townhouse	26.22	5.3224	0.3146	0.0000	13.1861

General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		**61.5327**	**3.6365**	**0.0000**	**152.4445**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.2	0.0406	2.4000e-003	0.0000	0.1006
Condo/Townhouse	26.22	5.3224	0.3146	0.0000	13.1861
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		**61.5327**	**3.6365**	**0.0000**	**152.4445**

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

Otay Ranch Resort Village Year 8 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 8 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
City Park	2.30	Acre	2.30	100,188.00	0
Condo/Townhouse	57.00	Dwelling Unit	8.30	57,000.00	163
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601
Strip Mall	20.00	1000sqft	8.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	200.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00

tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	65094	0
tblAreaCoating	Area_Nonresidential_Interior	195282	0
tblAreaCoating	Area_Residential_Exterior	293625	0
tblAreaCoating	Area_Residential_Interior	880875	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	131.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	129.00
tblConstructionPhase	NumDays	110.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
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tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	903.00	100.50
tblGrading	MaterialExported	0.00	1,063,117.00
tblGrading	MaterialImported	0.00	1,063,117.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	3.56	8.30
tblLandUse	LotAcreage	68.18	58.70
tblLandUse	LotAcreage	0.46	8.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00

tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	50.00	96.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	168.00	330.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	34.00	66.00

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					
2026	50.7648	276.8387	168.4665	0.5389	20.1141	4.9658	25.0799	8.3942	4.5923	12.9865	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050
Maximum	**50.7648**	**276.8387**	**168.4665**	**0.5389**	**20.1141**	**4.9658**	**25.0799**	**8.3942**	**4.5923**	**12.9865**	**0.0000**	**55,550.8080**	**55,550.8080**	**10.7719**	**0.0000**	**55,820.1050**

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					
2026	50.7648	276.8387	168.4665	0.5389	10.8503	4.9658	15.8161	4.0874	4.5923	8.6797	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050
Maximum	**50.7648**	**276.8387**	**168.4665**	**0.5389**	**10.8503**	**4.9658**	**15.8161**	**4.0874**	**4.5923**	**8.6797**	**0.0000**	**55,550.8080**	**55,550.8080**	**10.7719**	**0.0000**	**55,820.1050**

	ROG	NOx	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**	**46.06**	**0.00**	**36.94**	**51.31**	**0.00**	**33.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.0521	3,149.4352	10,564.4873	6.8810	0.5833	10,910.3214
Energy	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458
Mobile	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Total	**421.5512**	**9.7470**	**527.0988**	**0.9246**	**15.6695**	**70.9645**	**86.6339**	**3.8461**	**70.9645**	**74.8106**	**7,415.0521**	**5,076.1317**	**12,491.1838**	**6.9180**	**0.6186**	**12,848.4672**

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	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.0521	3,149.4352	10,564.4873	6.8810	0.5833	10,910.3214
Energy	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458
Mobile	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Total	**421.5512**	**9.7470**	**527.0988**	**0.9246**	**15.6695**	**70.9645**	**86.6339**	**3.8461**	**70.9645**	**74.8106**	**7,415.0521**	**5,076.1317**	**12,491.1838**	**6.9180**	**0.6186**	**12,848.4672**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Grading	Grading	1/1/2026	6/30/2026	5	129	
2	Utilities	Trenching	2/1/2026	7/31/2026	5	129	
3	Building Construction	Building Construction	3/1/2026	12/31/2026	5	219	
4	Paving	Paving	7/1/2026	12/31/2026	5	131	
5	Architectural Coating	Architectural Coating	7/1/2026	12/31/2026	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 100.5

Acres of Paving: 0

Residential Indoor: 880,875; Residential Outdoor: 293,625; Non-Residential Indoor: 195,282; Non-Residential Outdoor: 65,094; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36

Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	265,780.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	330.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2026

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					15.1865	0.0000	15.1865	7.0604	0.0000	7.0604			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**15.1865**	**3.0843**	**18.2708**	**7.0604**	**2.8375**	**9.8979**		**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	2.2575	158.1515	22.7822	0.2272	0.9425	0.0470	0.9895	0.2621	0.0450	0.3070		25,114.1871	25,114.1871	2.8825		25,186.2496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	**2.4080**	**158.2339**	**23.8360**	**0.2309**	**1.4025**	**0.0499**	**1.4524**	**0.3841**	**0.0476**	**0.4317**		**25,489.4063**	**25,489.4063**	**2.8911**		**25,561.6850**

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					5.9227	0.0000	5.9227	2.7536	0.0000	2.7536			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**5.9227**	**3.0843**	**9.0070**	**2.7536**	**2.8375**	**5.5911**	**0.0000**	**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	2.2575	158.1515	22.7822	0.2272	0.9425	0.0470	0.9895	0.2621	0.0450	0.3070		25,114.1871	25,114.1871	2.8825		25,186.2496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	**2.4080**	**158.2339**	**23.8360**	**0.2309**	**1.4025**	**0.0499**	**1.4524**	**0.3841**	**0.0476**	**0.4317**		**25,489.4063**	**25,489.4063**	**2.8911**		**25,561.6850**

3.3 Utilities - 2026

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**		**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841

Total	**0.0537**	**0.0295**	**0.3764**	**1.3400e-003**	**0.1643**	**1.0200e-003**	**0.1653**	**0.0436**	**9.4000e-004**	**0.0445**		**134.0069**	**134.0069**	**3.0900e-003**		**134.0841**

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**	**0.0000**	**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841
Total	**0.0537**	**0.0295**	**0.3764**	**1.3400e-003**	**0.1643**	**1.0200e-003**	**0.1653**	**0.0436**	**9.4000e-004**	**0.0445**		**134.0069**	**134.0069**	**3.0900e-003**		**134.0841**

3.4 Building Construction - 2026

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**		**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1900	6.9675	2.0248	0.0245	0.6499	7.9100e-003	0.6578	0.1871	7.5600e-003	0.1946		2,651.3148	2,651.3148	0.1719		2,655.6128
Worker	0.8868	0.4859	6.2101	0.0222	2.7109	0.0168	2.7277	0.7191	0.0155	0.7345		2,211.1132	2,211.1132	0.0509		2,212.3868
Total	**1.0767**	**7.4535**	**8.2349**	**0.0466**	**3.3607**	**0.0247**	**3.3855**	**0.9061**	**0.0230**	**0.9292**		**4,862.4280**	**4,862.4280**	**0.2229**		**4,867.9996**

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**	**0.0000**	**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1900	6.9675	2.0248	0.0245	0.6499	7.9100e-003	0.6578	0.1871	7.5600e-003	0.1946		2,651.3148	2,651.3148	0.1719		2,655.6128
Worker	0.8868	0.4859	6.2101	0.0222	2.7109	0.0168	2.7277	0.7191	0.0155	0.7345		2,211.1132	2,211.1132	0.0509		2,212.3868
Total	**1.0767**	**7.4535**	**8.2349**	**0.0466**	**3.3607**	**0.0247**	**3.3855**	**0.9061**	**0.0230**	**0.9292**		**4,862.4280**	**4,862.4280**	**0.2229**		**4,867.9996**

3.5 Paving - 2026

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**		**5,327.8356**	**5,327.8356**	**1.6344**		**5,368.6951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	**0.1505**	**0.0825**	**1.0538**	**3.7600e-003**	**0.4600**	**2.8500e-003**	**0.4629**	**0.1220**	**2.6300e-003**	**0.1247**		**375.2192**	**375.2192**	**8.6400e-003**		**375.4353**

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**	**0.0000**	**5,327.8355**	**5,327.8355**	**1.6344**		**5,368.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	**0.1505**	**0.0825**	**1.0538**	**3.7600e-003**	**0.4600**	**2.8500e-003**	**0.4629**	**0.1220**	**2.6300e-003**	**0.1247**		**375.2192**	**375.2192**	**8.6400e-003**		**375.4353**

3.6 Architectural Coating - 2026

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	42.1192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**42.4609**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774

Total	**0.1774**	**0.0972**	**1.2420**	**4.4300e-003**	**0.5422**	**3.3600e-003**	**0.5455**	**0.1438**	**3.0900e-003**	**0.1469**		**442.2226**	**442.2226**	**0.0102**		**442.4774**

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	42.1192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**42.4609**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774
Total	**0.1774**	**0.0972**	**1.2420**	**4.4300e-003**	**0.5422**	**3.3600e-003**	**0.5455**	**0.1438**	**3.0900e-003**	**0.1469**		**442.2226**	**442.2226**	**0.0102**		**442.4774**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.35	52.33	38.50	34,329	34,329
Condo/Townhouse	331.17	323.19	275.88	919,783	919,783
General Office Building	110.30	24.60	10.50	200,261	200,261
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	3,331.42	3,322.02	2,543.68	8,068,944	8,068,944

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Condo/Townhouse	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458
NaturalGas Unmitigated	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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

Condo/Townhouse	2246.09	0.0242	0.2070	0.0881	1.3200e-003		0.0167	0.0167		0.0167	0.0167		264.2458	264.2458	5.0600e-003	4.8400e-003	265.8160
General Office Building	553.151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Strip Mall	122.192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		**0.1766**	**1.5132**	**0.6714**	**9.6300e-003**		**0.1220**	**0.1220**		**0.1220**	**0.1220**		**1,926.6964**	**1,926.6964**	**0.0369**	**0.0353**	**1,938.1458**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Condo/Townhouse	2.24609	0.0242	0.2070	0.0881	1.3200e-003		0.0167	0.0167		0.0167	0.0167		264.2458	264.2458	5.0600e-003	4.8400e-003	265.8160
General Office Building	0.553151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Strip Mall	0.122192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		**0.1766**	**1.5132**	**0.6714**	**9.6300e-003**		**0.1220**	**0.1220**		**0.1220**	**0.1220**		**1,926.6964**	**1,926.6964**	**0.0369**	**0.0353**	**1,938.1458**

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	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.0521	3,149.4352	10,564.4873	6.8810	0.5833	10,910.3214
Unmitigated	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.0521	3,149.4352	10,564.4873	6.8810	0.5833	10,910.3214

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.0950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	408.6155	7.9798	504.3914	0.9138		70.7205	70.7205		70.7205	70.7205	7,415.0521	3,109.7647	10,524.8168	6.8429	0.5833	10,869.6968
Landscaping	0.6641	0.2540	22.0361	1.1600e-003		0.1220	0.1220		0.1220	0.1220		39.6705	39.6705	0.0382		40.6245
Total	**421.3746**	**8.2338**	**526.4275**	**0.9150**		**70.8424**	**70.8424**		**70.8424**	**70.8424**	**7,415.0521**	**3,149.4352**	**10,564.4873**	**6.8810**	**0.5833**	**10,910.3214**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	12.0950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	408.6155	7.9798	504.3914	0.9138		70.7205	70.7205		70.7205	70.7205	7,415.0521	3,109.7647	10,524.8168	6.8429	0.5833	10,869.6968
Landscaping	0.6641	0.2540	22.0361	1.1600e-003		0.1220	0.1220		0.1220	0.1220		39.6705	39.6705	0.0382		40.6245
Total	**421.3746**	**8.2338**	**526.4275**	**0.9150**		**70.8424**	**70.8424**		**70.8424**	**70.8424**	**7,415.0521**	**3,149.4352**	**10,564.4873**	**6.8810**	**0.5833**	**10,910.3214**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 9 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	69,696.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	34848	0
tblAreaCoating	Area_Nonresidential_Interior	104544	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblGrading	AcresOfGrading	910.00	78.60
tblGrading	MaterialExported	0.00	831,453.00
tblGrading	MaterialImported	0.00	831,453.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	34.00	68.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	105.00	210.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	21.00	42.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	3.0737	18.4726	15.0198	0.0389	1.3068	0.4539	1.7607	0.5498	0.4212	0.9710	0.0000	3,557.4371	3,557.4371	0.7706	0.0000	3,576.7015
Maximum	**3.0737**	**18.4726**	**15.0198**	**0.0389**	**1.3068**	**0.4539**	**1.7607**	**0.5498**	**0.4212**	**0.9710**	**0.0000**	**3,557.4371**	**3,557.4371**	**0.7706**	**0.0000**	**3,576.7015**

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					
2027	3.0737	18.4726	15.0198	0.0389	0.7370	0.4539	1.1908	0.2759	0.4212	0.6971	0.0000	3,557.4346	3,557.4346	0.7706	0.0000	3,576.6990
Maximum	**3.0737**	**18.4726**	**15.0198**	**0.0389**	**0.7370**	**0.4539**	**1.1908**	**0.2759**	**0.4212**	**0.6971**	**0.0000**	**3,557.4346**	**3,557.4346**	**0.7706**	**0.0000**	**3,576.6990**

	ROG	NOx	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**	**43.61**	**0.00**	**32.36**	**49.82**	**0.00**	**28.21**	**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)
		Highest		

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	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0474	0.0000	50.0474	2.9577	0.0000	123.9904
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**14.9985**	**0.5016**	**17.9201**	**0.0310**	**1.8287**	**2.3075**	**4.1362**	**0.4489**	**2.3075**	**2.7563**	**271.3093**	**355.6038**	**626.9131**	**3.6112**	**0.0324**	**726.8469**

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	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0474	0.0000	50.0474	2.9577	0.0000	123.9904
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	**14.9985**	**0.5016**	**17.9201**	**0.0310**	**1.8287**	**2.3075**	**4.1362**	**0.4489**	**2.3075**	**2.7563**	**271.3093**	**355.6038**	**626.9131**	**3.6112**	**0.0324**	**726.8469**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2027	6/30/2027	5	130	
2	Utilities	Trenching	2/1/2027	7/31/2027	5	129	
3	Building Construction	Building Construction	3/1/2027	12/31/2027	5	218	
4	Paving	Paving	7/1/2027	12/31/2027	5	130	
5	Architectural Coating	Architectural Coating	7/1/2027	12/31/2027	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 104,544; Non-Residential Outdoor: 34,848; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Sweepers/Scrubbers	2	8.00	64	0.46
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	207,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	210.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2027

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					0.9341	0.0000	0.9341	0.4490	0.0000	0.4490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5509	4.8651	5.4236	0.0120		0.2050	0.2050		0.1886	0.1886	0.0000	1,053.4594	1,053.4594	0.3407	0.0000	1,061.9772
Total	**0.5509**	**4.8651**	**5.4236**	**0.0120**	**0.9341**	**0.2050**	**1.1392**	**0.4490**	**0.1886**	**0.6377**	**0.0000**	**1,053.4594**	**1,053.4594**	**0.3407**	**0.0000**	**1,061.9772**

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	0.1165	7.7448	1.2893	0.0107	0.0465	2.4300e-003	0.0489	0.0130	2.3200e-003	0.0153	0.0000	1,077.0110	1,077.0110	0.1330	0.0000	1,080.3360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	9.3900e-003	5.4700e-003	0.0600	2.2000e-004	0.0290	1.7000e-004	0.0291	7.7000e-003	1.6000e-004	7.8600e-003	0.0000	20.1220	20.1220	4.5000e-004	0.0000	20.1332
Total	**0.1259**	**7.7503**	**1.3493**	**0.0109**	**0.0755**	**2.6000e-003**	**0.0781**	**0.0207**	**2.4800e-003**	**0.0231**	**0.0000**	**1,097.1330**	**1,097.1330**	**0.1335**	**0.0000**	**1,100.4691**

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					0.3643	0.0000	0.3643	0.1751	0.0000	0.1751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5509	4.8651	5.4236	0.0120		0.2050	0.2050		0.1886	0.1886	0.0000	1,053.4581	1,053.4581	0.3407	0.0000	1,061.9759
Total	**0.5509**	**4.8651**	**5.4236**	**0.0120**	**0.3643**	**0.2050**	**0.5694**	**0.1751**	**0.1886**	**0.3638**	**0.0000**	**1,053.4581**	**1,053.4581**	**0.3407**	**0.0000**	**1,061.9759**

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	0.1165	7.7448	1.2893	0.0107	0.0465	2.4300e-003	0.0489	0.0130	2.3200e-003	0.0153	0.0000	1,077.0110	1,077.0110	0.1330	0.0000	1,080.3360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3900e-003	5.4700e-003	0.0600	2.2000e-004	0.0290	1.7000e-004	0.0291	7.7000e-003	1.6000e-004	7.8600e-003	0.0000	20.1220	20.1220	4.5000e-004	0.0000	20.1332
Total	**0.1259**	**7.7503**	**1.3493**	**0.0109**	**0.0755**	**2.6000e-003**	**0.0781**	**0.0207**	**2.4800e-003**	**0.0231**	**0.0000**	**1,097.1330**	**1,097.1330**	**0.1335**	**0.0000**	**1,100.4691**

3.3 Utilities - 2027

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	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6290	189.6290	0.0613	0.0000	191.1622
Total	**0.1069**	**0.9083**	**1.4587**	**2.1600e-003**		**0.0529**	**0.0529**		**0.0487**	**0.0487**	**0.0000**	**189.6290**	**189.6290**	**0.0613**	**0.0000**	**191.1622**

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	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462
Total	**3.3800e-003**	**1.9700e-003**	**0.0216**	**8.0000e-005**	**0.0104**	**6.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**7.2421**	**7.2421**	**1.6000e-004**	**0.0000**	**7.2462**

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	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6288	189.6288	0.0613	0.0000	191.1620
Total	**0.1069**	**0.9083**	**1.4587**	**2.1600e-003**		**0.0529**	**0.0529**		**0.0487**	**0.0487**	**0.0000**	**189.6288**	**189.6288**	**0.0613**	**0.0000**	**191.1620**

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	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462
Total	**3.3800e-003**	**1.9700e-003**	**0.0216**	**8.0000e-005**	**0.0104**	**6.0000e-005**	**0.0105**	**2.7700e-003**	**6.0000e-005**	**2.8300e-003**	**0.0000**	**7.2421**	**7.2421**	**1.6000e-004**	**0.0000**	**7.2462**

3.4 Building Construction - 2027

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	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1105	508.1105	0.1193	0.0000	511.0918
Total	**0.2995**	**2.7301**	**3.5314**	**5.9100e-003**		**0.1155**	**0.1155**		**0.1087**	**0.1087**	**0.0000**	**508.1105**	**508.1105**	**0.1193**	**0.0000**	**511.0918**

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	0.0148	0.5385	0.1632	1.8700e-003	0.0497	6.1000e-004	0.0503	0.0143	5.8000e-004	0.0149	0.0000	184.4411	184.4411	0.0123	0.0000	184.7488
Worker	0.0600	0.0350	0.3839	1.4200e-003	0.1852	1.1100e-003	0.1864	0.0492	1.0200e-003	0.0503	0.0000	128.6869	128.6869	2.8700e-003	0.0000	128.7587
Total	**0.0748**	**0.5735**	**0.5471**	**3.2900e-003**	**0.2349**	**1.7200e-003**	**0.2366**	**0.0636**	**1.6000e-003**	**0.0652**	**0.0000**	**313.1280**	**313.1280**	**0.0152**	**0.0000**	**313.5074**

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	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1099	508.1099	0.1193	0.0000	511.0912
Total	**0.2995**	**2.7301**	**3.5314**	**5.9100e-003**		**0.1155**	**0.1155**		**0.1087**	**0.1087**	**0.0000**	**508.1099**	**508.1099**	**0.1193**	**0.0000**	**511.0912**

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	0.0148	0.5385	0.1632	1.8700e-003	0.0497	6.1000e-004	0.0503	0.0143	5.8000e-004	0.0149	0.0000	184.4411	184.4411	0.0123	0.0000	184.7488
Worker	0.0600	0.0350	0.3839	1.4200e-003	0.1852	1.1100e-003	0.1864	0.0492	1.0200e-003	0.0503	0.0000	128.6869	128.6869	2.8700e-003	0.0000	128.7587
Total	**0.0748**	**0.5735**	**0.5471**	**3.2900e-003**	**0.2349**	**1.7200e-003**	**0.2366**	**0.0636**	**1.6000e-003**	**0.0652**	**0.0000**	**313.1280**	**313.1280**	**0.0152**	**0.0000**	**313.5074**

3.5 Paving - 2027

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9999**	**318.9999**	**0.0979**	**0.0000**	**321.4463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014

Total	**9.6000e-003**	**5.6000e-003**	**0.0614**	**2.3000e-004**	**0.0296**	**1.8000e-004**	**0.0298**	**7.8800e-003**	**1.6000e-004**	**8.0400e-003**	**0.0000**	**20.5899**	**20.5899**	**4.6000e-004**	**0.0000**	**20.6014**

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1669**	**1.4823**	**2.3418**	**3.7300e-003**		**0.0689**	**0.0689**		**0.0640**	**0.0640**	**0.0000**	**318.9995**	**318.9995**	**0.0979**	**0.0000**	**321.4459**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014
Total	**9.6000e-003**	**5.6000e-003**	**0.0614**	**2.3000e-004**	**0.0296**	**1.8000e-004**	**0.0298**	**7.8800e-003**	**1.6000e-004**	**8.0400e-003**	**0.0000**	**20.5899**	**20.5899**	**4.6000e-004**	**0.0000**	**20.6014**

3.6 Architectural Coating - 2027

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	1.7060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	**1.7286**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7030**	**33.7030**	**1.8400e-003**	**0.0000**	**33.7489**

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	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510
Total	**7.2000e-003**	**4.2000e-003**	**0.0461**	**1.7000e-004**	**0.0222**	**1.3000e-004**	**0.0224**	**5.9100e-003**	**1.2000e-004**	**6.0300e-003**	**0.0000**	**15.4424**	**15.4424**	**3.4000e-004**	**0.0000**	**15.4510**

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	1.7060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	**1.7286**	**0.1512**	**0.2388**	**3.9000e-004**		**6.8000e-003**	**6.8000e-003**		**6.8000e-003**	**6.8000e-003**	**0.0000**	**33.7029**	**33.7029**	**1.8400e-003**	**0.0000**	**33.7489**

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	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510
Total	**7.2000e-003**	**4.2000e-003**	**0.0461**	**1.7000e-004**	**0.0222**	**1.3000e-004**	**0.0224**	**5.9100e-003**	**1.2000e-004**	**6.0300e-003**	**0.0000**	**15.4424**	**15.4424**	**3.4000e-004**	**0.0000**	**15.4510**

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	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.02	36.40	26.78	23,881	23,881
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.22	2,117.50	1,836.98	5,688,517	5,688,517

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

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					
City Park	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
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		**0.0265**	**0.2263**	**0.0963**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**262.0832**	**262.0832**	**5.0200e-003**	**4.8000e-003**	**263.6406**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Unmitigated	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7485					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0469	0.0180	1.5586	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5471	2.5471	2.4400e-003	0.0000	2.6082
Total	**14.9721**	**0.2753**	**17.8238**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5206**	**310.4418**	**0.2026**	**0.0171**	**320.5920**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7485					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0469	0.0180	1.5586	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5471	2.5471	2.4400e-003	0.0000	2.6082
Total	**14.9721**	**0.2753**	**17.8238**	**0.0296**		**2.2892**	**2.2892**		**2.2892**	**2.2892**	**216.9211**	**93.5206**	**310.4418**	**0.2026**	**0.0171**	**320.5920**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 1.90637	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.90637	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		**4.3408**	**0.4458**	**0.0105**	**18.6239**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0474	2.9577	0.0000	123.9904

Unmitigated	50.0474	2.9577	0.0000	123.9904

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0474**	**2.9577**	**0.0000**	**123.9904**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		**50.0474**	**2.9577**	**0.0000**	**123.9904**

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

Otay Ranch Resort Village Year 9 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	69,696.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	34848	0
tblAreaCoating	Area_Nonresidential_Interior	104544	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblGrading	AcresOfGrading	910.00	78.60
tblGrading	MaterialExported	0.00	831,453.00
tblGrading	MaterialImported	0.00	831,453.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	34.00	68.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	105.00	210.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	21.00	42.00

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					
2027	34.0610	240.9154	162.8835	0.4830	18.0281	5.0954	23.1235	7.9220	4.7110	12.6329	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0784
Maximum	**34.0610**	**240.9154**	**162.8835**	**0.4830**	**18.0281**	**5.0954**	**23.1235**	**7.9220**	**4.7110**	**12.6329**	**0.0000**	**49,334.5573**	**49,334.5573**	**10.3809**	**0.0000**	**49,594.0784**

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					
2027	34.0610	240.9154	162.8835	0.4830	9.1936	5.0954	14.2890	3.6752	4.7110	8.3862	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0783
Maximum	**34.0610**	**240.9154**	**162.8835**	**0.4830**	**9.1936**	**5.0954**	**14.2890**	**3.6752**	**4.7110**	**8.3862**	**0.0000**	**49,334.5573**	**49,334.5573**	**10.3809**	**0.0000**	**49,594.0783**

	ROG	NOx	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**	**49.00**	**0.00**	**38.21**	**53.61**	**0.00**	**33.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Total	**331.6295**	**7.7158**	**414.5582**	**0.7276**	**10.9326**	**55.8191**	**66.7517**	**2.6835**	**55.8191**	**58.5026**	**5,832.0635**	**4,060.0773**	**9,892.1408**	**5.4423**	**0.4878**	**10,173.5500**

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	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Total	**331.6295**	**7.7158**	**414.5582**	**0.7276**	**10.9326**	**55.8191**	**66.7517**	**2.6835**	**55.8191**	**58.5026**	**5,832.0635**	**4,060.0773**	**9,892.1408**	**5.4423**	**0.4878**	**10,173.5500**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2027	6/30/2027	5	130	
2	Utilities	Trenching	2/1/2027	7/31/2027	5	129	
3	Building Construction	Building Construction	3/1/2027	12/31/2027	5	218	
4	Paving	Paving	7/1/2027	12/31/2027	5	130	
5	Architectural Coating	Architectural Coating	7/1/2027	12/31/2027	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 104,544; Non-Residential Outdoor: 34,848; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Sweepers/Scrubbers	2	8.00	64	0.46
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	207,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	210.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2027

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					14.4828	0.0000	14.4828	6.9619	0.0000	6.9619			0.0000			0.0000
Off-Road	8.5407	75.4283	84.0869	0.1860		3.1788	3.1788		2.9245	2.9245		18,003.7241	18,003.7241	5.8228		18,149.2933
Total	**8.5407**	**75.4283**	**84.0869**	**0.1860**	**14.4828**	**3.1788**	**17.6616**	**6.9619**	**2.9245**	**9.8863**		**18,003.7241**	**18,003.7241**	**5.8228**		**18,149.2933**

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	1.7172	121.4337	17.7540	0.1743	0.7355	0.0338	0.7693	0.2044	0.0323	0.2367		19,303.0617	19,303.0617	2.1608		19,357.0827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	**1.8610**	**121.5107**	**18.7487**	**0.1779**	**1.1956**	**0.0365**	**1.2320**	**0.3264**	**0.0348**	**0.3612**		**19,665.7181**	**19,665.7181**	**2.1689**		**19,719.9415**

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					5.6483	0.0000	5.6483	2.7151	0.0000	2.7151			0.0000			0.0000
Off-Road	8.5407	75.4283	84.0869	0.1860		3.1788	3.1788		2.9245	2.9245	0.0000	18,003.7241	18,003.7241	5.8228		18,149.2933
Total	**8.5407**	**75.4283**	**84.0869**	**0.1860**	**5.6483**	**3.1788**	**8.8271**	**2.7151**	**2.9245**	**5.6396**	**0.0000**	**18,003.7241**	**18,003.7241**	**5.8228**		**18,149.2933**

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	1.7172	121.4337	17.7540	0.1743	0.7355	0.0338	0.7693	0.2044	0.0323	0.2367		19,303.0617	19,303.0617	2.1608		19,357.0827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	**1.8610**	**121.5107**	**18.7487**	**0.1779**	**1.1956**	**0.0365**	**1.2320**	**0.3264**	**0.0348**	**0.3612**		**19,665.7181**	**19,665.7181**	**2.1689**		**19,719.9415**

3.3 Utilities - 2027

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	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485		3,215.8487	3,215.8487	1.0401		3,241.8504
Total	**1.6443**	**13.9735**	**22.4416**	**0.0332**		**0.8136**	**0.8136**		**0.7485**	**0.7485**		**3,215.8487**	**3,215.8487**	**1.0401**		**3,241.8504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924
Total	**0.0514**	**0.0275**	**0.3553**	**1.3000e-003**	**0.1643**	**9.6000e-004**	**0.1653**	**0.0436**	**8.9000e-004**	**0.0445**		**129.5201**	**129.5201**	**2.8900e-003**		**129.5924**

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	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485	0.0000	3,215.8486	3,215.8486	1.0401		3,241.8504
Total	**1.6443**	**13.9735**	**22.4416**	**0.0332**		**0.8136**	**0.8136**		**0.7485**	**0.7485**	**0.0000**	**3,215.8486**	**3,215.8486**	**1.0401**		**3,241.8504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924
Total	**0.0514**	**0.0275**	**0.3553**	**1.3000e-003**	**0.1643**	**9.6000e-004**	**0.1653**	**0.0436**	**8.9000e-004**	**0.0445**		**129.5201**	**129.5201**	**2.8900e-003**		**129.5924**

3.4 Building Construction - 2027

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**		**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1316	4.8673	1.4172	0.0172	0.4603	5.4700e-003	0.4658	0.1325	5.2300e-003	0.1378		1,868.0038	1,868.0038	0.1208		1,871.0228
Worker	0.5395	0.2887	3.7303	0.0136	1.7251	0.0101	1.7352	0.4576	9.3100e-003	0.4669		1,359.9614	1,359.9614	0.0304		1,360.7206
Total	**0.6711**	**5.1560**	**5.1475**	**0.0308**	**2.1854**	**0.0156**	**2.2010**	**0.5901**	**0.0145**	**0.6046**		**3,227.9653**	**3,227.9653**	**0.1511**		**3,231.7434**

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**	**0.0000**	**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1316	4.8673	1.4172	0.0172	0.4603	5.4700e-003	0.4658	0.1325	5.2300e-003	0.1378		1,868.0038	1,868.0038	0.1208		1,871.0228
Worker	0.5395	0.2887	3.7303	0.0136	1.7251	0.0101	1.7352	0.4576	9.3100e-003	0.4669		1,359.9614	1,359.9614	0.0304		1,360.7206

Total	**0.6711**	**5.1560**	**5.1475**	**0.0308**	**2.1854**	**0.0156**	**2.2010**	**0.5901**	**0.0145**	**0.6046**		**3,227.9653**	**3,227.9653**	**0.1511**		**3,231.7434**

3.5 Paving - 2027

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**		**5,327.8356**	**5,327.8356**	**1.6344**		**5,368.6951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	**0.1439**	**0.0770**	**0.9947**	**3.6400e-003**	**0.4600**	**2.7000e-003**	**0.4627**	**0.1220**	**2.4800e-003**	**0.1245**		**362.6564**	**362.6564**	**8.1000e-003**		**362.8588**

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**	**0.0000**	**5,327.8355**	**5,327.8355**	**1.6344**		**5,368.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	**0.1439**	**0.0770**	**0.9947**	**3.6400e-003**	**0.4600**	**2.7000e-003**	**0.4627**	**0.1220**	**2.4800e-003**	**0.1245**		**362.6564**	**362.6564**	**8.1000e-003**		**362.8588**

3.6 Architectural Coating - 2027

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	25.8489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**26.1906**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441
Total	**0.1079**	**0.0577**	**0.7461**	**2.7300e-003**	**0.3450**	**2.0200e-003**	**0.3470**	**0.0915**	**1.8600e-003**	**0.0934**		**271.9923**	**271.9923**	**6.0700e-003**		**272.1441**

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	25.8489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**26.1906**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441
Total	**0.1079**	**0.0577**	**0.7461**	**2.7300e-003**	**0.3450**	**2.0200e-003**	**0.3470**	**0.0915**	**1.8600e-003**	**0.0934**		**271.9923**	**271.9923**	**6.0700e-003**		**272.1441**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.02	36.40	26.78	23,881	23,881
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.22	2,117.50	1,836.98	5,688,517	5,688,517

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		**0.1451**	**1.2400**	**0.5277**	**7.9100e-003**		**0.1003**	**0.1003**		**0.1003**	**0.1003**		**1,582.9986**	**1,582.9986**	**0.0303**	**0.0290**	**1,592.4056**

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	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Unmitigated	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5807					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5207	0.1995	17.3181	9.1000e-004		0.0960	0.0960		0.0960	0.0960		31.1963	31.1963	0.0299		31.9447
Total	**331.4844**	**6.4758**	**414.0305**	**0.7196**		**55.7188**	**55.7188**		**55.7188**	**55.7188**	**5,832.0635**	**2,477.0787**	**8,309.1421**	**5.4120**	**0.4587**	**8,581.1444**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5807					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5207	0.1995	17.3181	9.1000e-004		0.0960	0.0960		0.0960	0.0960		31.1963	31.1963	0.0299		31.9447
Total	**331.4844**	**6.4758**	**414.0305**	**0.7196**		**55.7188**	**55.7188**		**55.7188**	**55.7188**	**5,832.0635**	**2,477.0787**	**8,309.1421**	**5.4120**	**0.4587**	**8,581.1444**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 10 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 10 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	100.00	Dwelling Unit	28.00	180,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Residential_Exterior	121500	0
tblAreaCoating	Area_Residential_Interior	364500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	0

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	440.00	218.00
tblConstructionPhase	NumDays	45.00	130.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	910.00	36.40
tblGrading	MaterialExported	0.00	385,049.00
tblGrading	MaterialImported	0.00	385,049.00
tblLandUse	LotAcreage	32.47	28.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00

tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	11.00	22.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	7.00	14.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2028	1.9052	13.6979	13.7287	0.0299	1.0328	0.4407	1.4735	0.4882	0.4090	0.8971	0.0000	2,679.2692	2,679.2692	0.6632	0.0000	2,695.8502
Maximum	**1.9052**	**13.6979**	**13.7287**	**0.0299**	**1.0328**	**0.4407**	**1.4735**	**0.4882**	**0.4090**	**0.8971**	**0.0000**	**2,679.2692**	**2,679.2692**	**0.6632**	**0.0000**	**2,695.8502**

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					
2028	1.9052	13.6979	13.7287	0.0299	0.5105	0.4407	0.9512	0.2194	0.4090	0.6284	0.0000	2,679.2668	2,679.2668	0.6632	0.0000	2,695.8478
Maximum	**1.9052**	**13.6979**	**13.7287**	**0.0299**	**0.5105**	**0.4407**	**0.9512**	**0.2194**	**0.4090**	**0.6284**	**0.0000**	**2,679.2668**	**2,679.2668**	**0.6632**	**0.0000**	**2,695.8478**

	ROG	NOx	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**	**50.57**	**0.00**	**35.45**	**55.06**	**0.00**	**29.96**	**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)
		Highest		

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	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Energy	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Mobile	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.8027	0.0000	23.8027	1.4067	0.0000	58.9702
Water						0.0000	0.0000		0.0000	0.0000	2.0670	0.0000	2.0670	0.2123	5.0100e-003	8.8685
Total	**7.0125**	**0.2388**	**8.5330**	**0.0148**	**0.8672**	**1.0988**	**1.9660**	**0.2129**	**1.0988**	**1.3117**	**129.1655**	**169.3351**	**298.5007**	**1.7179**	**0.0154**	**346.0447**

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	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Energy	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Mobile	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.8027	0.0000	23.8027	1.4067	0.0000	58.9702
Water						0.0000	0.0000		0.0000	0.0000	2.0670	0.0000	2.0670	0.2123	5.0100e-003	8.8685
Total	**7.0125**	**0.2388**	**8.5330**	**0.0148**	**0.8672**	**1.0988**	**1.9660**	**0.2129**	**1.0988**	**1.3117**	**129.1655**	**169.3351**	**298.5007**	**1.7179**	**0.0154**	**346.0447**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2028	6/30/2028	5	130	
2	Utilities	Trenching	2/1/2028	7/31/2028	5	130	
3	Building Construction	Building Construction	3/1/2028	12/31/2028	5	218	
4	Paving	Paving	7/1/2028	12/31/2028	5	132	
5	Architectural Coating	Architectural Coating	7/1/2028	12/31/2028	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 36.4

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	96,262.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	72.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2028

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					0.8563	0.0000	0.8563	0.4406	0.0000	0.4406	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5238	4.7180	5.2533	0.0112		0.2005	0.2005		0.1844	0.1844	0.0000	981.5400	981.5400	0.3175	0.0000	989.4762
Total	**0.5238**	**4.7180**	**5.2533**	**0.0112**	**0.8563**	**0.2005**	**1.0568**	**0.4406**	**0.1844**	**0.6251**	**0.0000**	**981.5400**	**981.5400**	**0.3175**	**0.0000**	**989.4762**

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	0.0536	3.5790	0.6083	4.9500e-003	0.0216	1.0500e-003	0.0226	6.0200e-003	1.0000e-003	7.0200e-003	0.0000	498.1427	498.1427	0.0600	0.0000	499.6434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	**0.0626**	**3.5841**	**0.6656**	**5.1700e-003**	**0.0508**	**1.2100e-003**	**0.0520**	**0.0138**	**1.1500e-003**	**0.0149**	**0.0000**	**517.8039**	**517.8039**	**0.0605**	**0.0000**	**519.3153**

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					0.3340	0.0000	0.3340	0.1718	0.0000	0.1718	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5238	4.7180	5.2533	0.0112		0.2005	0.2005		0.1844	0.1844	0.0000	981.5388	981.5388	0.3175	0.0000	989.4750

Total	**0.5238**	**4.7180**	**5.2533**	**0.0112**	**0.3340**	**0.2005**	**0.5344**	**0.1718**	**0.1844**	**0.3563**	**0.0000**	**981.5388**	**981.5388**	**0.3175**	**0.0000**	**989.4750**

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	0.0536	3.5790	0.6083	4.9500e-003	0.0216	1.0500e-003	0.0226	6.0200e-003	1.0000e-003	7.0200e-003	0.0000	498.1427	498.1427	0.0600	0.0000	499.6434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	**0.0626**	**3.5841**	**0.6656**	**5.1700e-003**	**0.0508**	**1.2100e-003**	**0.0520**	**0.0138**	**1.1500e-003**	**0.0149**	**0.0000**	**517.8039**	**517.8039**	**0.0605**	**0.0000**	**519.3153**

3.3 Utilities - 2028

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056
Total	**0.1036**	**0.8917**	**1.5012**	**2.2300e-003**		**0.0491**	**0.0491**		**0.0452**	**0.0452**	**0.0000**	**196.2191**	**196.2191**	**0.0635**	**0.0000**	**197.8056**

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	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257
Total	**3.2200e-003**	**1.8500e-003**	**0.0205**	**8.0000e-005**	**0.0104**	**6.0000e-005**	**0.0105**	**2.7700e-003**	**5.0000e-005**	**2.8200e-003**	**0.0000**	**7.0219**	**7.0219**	**1.5000e-004**	**0.0000**	**7.0257**

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054
Total	**0.1036**	**0.8917**	**1.5012**	**2.2300e-003**		**0.0491**	**0.0491**		**0.0452**	**0.0452**	**0.0000**	**196.2188**	**196.2188**	**0.0635**	**0.0000**	**197.8054**

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	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257
Total	**3.2200e-003**	**1.8500e-003**	**0.0205**	**8.0000e-005**	**0.0104**	**6.0000e-005**	**0.0105**	**2.7700e-003**	**5.0000e-005**	**2.8200e-003**	**0.0000**	**7.0219**	**7.0219**	**1.5000e-004**	**0.0000**	**7.0257**

3.4 Building Construction - 2028

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4913**	**503.4913**	**0.1182**	**0.0000**	**506.4455**

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	4.6600e-003	0.1706	0.0520	6.0000e-004	0.0159	1.9000e-004	0.0161	4.6000e-003	1.8000e-004	4.7800e-003	0.0000	58.8674	58.8674	3.9100e-003	0.0000	58.9652
Worker	0.0194	0.0111	0.1236	4.7000e-004	0.0629	3.5000e-004	0.0633	0.0167	3.2000e-004	0.0171	0.0000	42.3904	42.3904	9.2000e-004	0.0000	42.4134
Total	**0.0241**	**0.1818**	**0.1756**	**1.0700e-003**	**0.0789**	**5.4000e-004**	**0.0794**	**0.0213**	**5.0000e-004**	**0.0218**	**0.0000**	**101.2578**	**101.2578**	**4.8300e-003**	**0.0000**	**101.3786**

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4907**	**503.4907**	**0.1182**	**0.0000**	**506.4449**

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	4.6600e-003	0.1706	0.0520	6.0000e-004	0.0159	1.9000e-004	0.0161	4.6000e-003	1.8000e-004	4.7800e-003	0.0000	58.8674	58.8674	3.9100e-003	0.0000	58.9652
Worker	0.0194	0.0111	0.1236	4.7000e-004	0.0629	3.5000e-004	0.0633	0.0167	3.2000e-004	0.0171	0.0000	42.3904	42.3904	9.2000e-004	0.0000	42.4134
Total	**0.0241**	**0.1818**	**0.1756**	**1.0700e-003**	**0.0789**	**5.4000e-004**	**0.0794**	**0.0213**	**5.0000e-004**	**0.0218**	**0.0000**	**101.2578**	**101.2578**	**4.8300e-003**	**0.0000**	**101.3786**

3.5 Paving - 2028

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	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1665	314.1665	0.0964	0.0000	316.5759
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1644**	**1.4598**	**2.3064**	**3.6800e-003**		**0.0679**	**0.0679**		**0.0631**	**0.0631**	**0.0000**	**314.1665**	**314.1665**	**0.0964**	**0.0000**	**316.5759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	**9.0100e-003**	**5.1700e-003**	**0.0573**	**2.2000e-004**	**0.0292**	**1.6000e-004**	**0.0294**	**7.7600e-003**	**1.5000e-004**	**7.9100e-003**	**0.0000**	**19.6612**	**19.6612**	**4.3000e-004**	**0.0000**	**19.6719**

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	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1662	314.1662	0.0964	0.0000	316.5755

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1644**	**1.4598**	**2.3064**	**3.6800e-003**		**0.0679**	**0.0679**		**0.0631**	**0.0631**	**0.0000**	**314.1662**	**314.1662**	**0.0964**	**0.0000**	**316.5755**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	**9.0100e-003**	**5.1700e-003**	**0.0573**	**2.2000e-004**	**0.0292**	**1.6000e-004**	**0.0294**	**7.7600e-003**	**1.5000e-004**	**7.9100e-003**	**0.0000**	**19.6612**	**19.6612**	**4.3000e-004**	**0.0000**	**19.6719**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**0.7155**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180
Total	**2.2500e-003**	**1.2900e-003**	**0.0143**	**5.0000e-005**	**7.3000e-003**	**4.0000e-005**	**7.3400e-003**	**1.9400e-003**	**4.0000e-005**	**1.9800e-003**	**0.0000**	**4.9153**	**4.9153**	**1.1000e-004**	**0.0000**	**4.9180**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**0.7155**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180
Total	**2.2500e-003**	**1.2900e-003**	**0.0143**	**5.0000e-005**	**7.3000e-003**	**4.0000e-005**	**7.3400e-003**	**1.9400e-003**	**4.0000e-005**	**1.9800e-003**	**0.0000**	**4.9153**	**4.9153**	**1.1000e-004**	**0.0000**	**4.9180**

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	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	952.00	991.00	862.00	2,697,446	2,697,446
Total	952.00	991.00	862.00	2,697,446	2,697,446

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
NaturalGas Unmitigated	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431

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					

Single Family Housing	2.33869e+006	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Total		**0.0126**	**0.1078**	**0.0459**	**6.9000e-004**		**8.7100e-003**	**8.7100e-003**		**8.7100e-003**	**8.7100e-003**	**0.0000**	**124.8015**	**124.8015**	**2.3900e-003**	**2.2900e-003**	**125.5431**

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					
Single Family Housing	2.33869e+006	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Total		**0.0126**	**0.1078**	**0.0459**	**6.9000e-004**		**8.7100e-003**	**8.7100e-003**		**8.7100e-003**	**8.7100e-003**	**0.0000**	**124.8015**	**124.8015**	**2.3900e-003**	**2.2900e-003**	**125.5431**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	809588	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	809588	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Unmitigated	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.2746	0.1225	7.7453	0.0140		1.0860	1.0860		1.0860	1.0860	103.2958	43.3207	146.6165	0.0953	8.1200e-003	151.4209
Landscaping	0.0223	8.5400e-003	0.7418	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2129	1.2129	1.1600e-003	0.0000	1.2419
Total	**6.9999**	**0.1311**	**8.4872**	**0.0141**		**1.0901**	**1.0901**		**1.0901**	**1.0901**	**103.2958**	**44.5336**	**147.8294**	**0.0965**	**8.1200e-003**	**152.6628**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.2746	0.1225	7.7453	0.0140		1.0860	1.0860		1.0860	1.0860	103.2958	43.3207	146.6165	0.0953	8.1200e-003	151.4209
Landscaping	0.0223	8.5400e-003	0.7418	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2129	1.2129	1.1600e-003	0.0000	1.2419
Total	**6.9999**	**0.1311**	**8.4872**	**0.0141**		**1.0901**	**1.0901**		**1.0901**	**1.0901**	**103.2958**	**44.5336**	**147.8294**	**0.0965**	**8.1200e-003**	**152.6628**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.0670	0.2123	5.0100e-003	8.8685
Unmitigated	2.0670	0.2123	5.0100e-003	8.8685

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	6.5154 / 4.10754	2.0670	0.2123	5.0100e-003	8.8685
Total		**2.0670**	**0.2123**	**5.0100e-003**	**8.8685**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Single Family Housing	6.5154 / 4.10754	2.0670	0.2123	5.0100e-003	8.8685
Total		**2.0670**	**0.2123**	**5.0100e-003**	**8.8685**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.8027	1.4067	0.0000	58.9702
Unmitigated	23.8027	1.4067	0.0000	58.9702

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	117.26	23.8027	1.4067	0.0000	58.9702
Total		**23.8027**	**1.4067**	**0.0000**	**58.9702**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	117.26	23.8027	1.4067	0.0000	58.9702
Total		**23.8027**	**1.4067**	**0.0000**	**58.9702**

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

Otay Ranch Resort Village Year 10 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 10 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	100.00	Dwelling Unit	28.00	180,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Residential_Exterior	121500	0
tblAreaCoating	Area_Residential_Interior	364500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	440.00	218.00
tblConstructionPhase	NumDays	45.00	130.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	910.00	36.40
tblGrading	MaterialExported	0.00	385,049.00
tblGrading	MaterialImported	0.00	385,049.00
tblLandUse	LotAcreage	32.47	28.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00

tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	11.00	22.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	7.00	14.00

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					
2028	18.2911	168.5462	147.2963	0.3547	14.8770	4.9130	19.7901	7.2381	4.5424	11.7805	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9505
Maximum	**18.2911**	**168.5462**	**147.2963**	**0.3547**	**14.8770**	**4.9130**	**19.7901**	**7.2381**	**4.5424**	**11.7805**	**0.0000**	**35,454.9031**	**35,454.9031**	**8.6819**	**0.0000**	**35,671.9505**

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					
2028	18.2911	168.5462	147.2963	0.3547	6.8411	4.9130	11.7542	3.1032	4.5424	7.6456	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9504
Maximum	**18.2911**	**168.5462**	**147.2963**	**0.3547**	**6.8411**	**4.9130**	**11.7542**	**3.1032**	**4.5424**	**7.6456**	**0.0000**	**35,454.9031**	**35,454.9031**	**8.6819**	**0.0000**	**35,671.9504**

	ROG	NOx	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**	**54.02**	**0.00**	**40.61**	**57.13**	**0.00**	**35.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Energy	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Mobile	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Total	**157.2081**	**3.6741**	**197.4042**	**0.3465**	**5.1388**	**26.5806**	**31.7194**	**1.2613**	**26.5806**	**27.8419**	**2,777.1731**	**1,933.3700**	**4,710.5431**	**2.5916**	**0.2323**	**4,844.5467**

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	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Energy	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Mobile	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Total	**157.2081**	**3.6741**	**197.4042**	**0.3465**	**5.1388**	**26.5806**	**31.7194**	**1.2613**	**26.5806**	**27.8419**	**2,777.1731**	**1,933.3700**	**4,710.5431**	**2.5916**	**0.2323**	**4,844.5467**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Grading	Grading	1/1/2028	6/30/2028	5	130	
2	Utilities	Trenching	2/1/2028	7/31/2028	5	130	
3	Building Construction	Building Construction	3/1/2028	12/31/2028	5	218	
4	Paving	Paving	7/1/2028	12/31/2028	5	132	
5	Architectural Coating	Architectural Coating	7/1/2028	12/31/2028	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 36.4

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36

Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	96,262.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	72.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2028

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					13.1735	0.0000	13.1735	6.7786	0.0000	6.7786			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**13.1735**	**3.0843**	**16.2578**	**6.7786**	**2.8375**	**9.6161**		**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	0.7833	55.6774	8.3282	0.0798	0.3387	0.0145	0.3532	0.0942	0.0139	0.1080		8,858.9659	8,858.9659	0.9682		8,883.1701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	**0.9202**	**55.7495**	**9.2715**	**0.0834**	**0.7988**	**0.0170**	**0.8158**	**0.2162**	**0.0162**	**0.2324**		**9,210.6047**	**9,210.6047**	**0.9758**		**9,234.9997**

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					5.1377	0.0000	5.1377	2.6436	0.0000	2.6436			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	**8.0586**	**72.5845**	**80.8198**	**0.1719**	**5.1377**	**3.0843**	**8.2220**	**2.6436**	**2.8375**	**5.4812**	**0.0000**	**16,645.5782**	**16,645.5782**	**5.3835**		**16,780.1662**

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	0.7833	55.6774	8.3282	0.0798	0.3387	0.0145	0.3532	0.0942	0.0139	0.1080		8,858.9659	8,858.9659	0.9682		8,883.1701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	**0.9202**	**55.7495**	**9.2715**	**0.0834**	**0.7988**	**0.0170**	**0.8158**	**0.2162**	**0.0162**	**0.2324**		**9,210.6047**	**9,210.6047**	**0.9758**		**9,234.9997**

3.3 Utilities - 2028

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**		**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534

Total	**0.0489**	**0.0258**	**0.3369**	**1.2600e-003**	**0.1643**	**8.9000e-004**	**0.1652**	**0.0436**	**8.2000e-004**	**0.0444**		**125.5853**	**125.5853**	**2.7300e-003**		**125.6534**

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**	**0.0000**	**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534
Total	**0.0489**	**0.0258**	**0.3369**	**1.2600e-003**	**0.1643**	**8.9000e-004**	**0.1652**	**0.0436**	**8.2000e-004**	**0.0444**		**125.5853**	**125.5853**	**2.7300e-003**		**125.6534**

3.4 Building Construction - 2028

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**		**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0418	1.5564	0.4558	5.5400e-003	0.1489	1.7400e-003	0.1507	0.0429	1.6600e-003	0.0445		601.6393	601.6393	0.0388		602.6085
Worker	0.1760	0.0928	1.2128	4.5300e-003	0.5915	3.2100e-003	0.5947	0.1569	2.9600e-003	0.1598		452.1070	452.1070	9.8100e-003		452.3524
Total	**0.2179**	**1.6491**	**1.6686**	**0.0101**	**0.7404**	**4.9500e-003**	**0.7454**	**0.1998**	**4.6200e-003**	**0.2044**		**1,053.7463**	**1,053.7463**	**0.0486**		**1,054.9609**

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**	**0.0000**	**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0418	1.5564	0.4558	5.5400e-003	0.1489	1.7400e-003	0.1507	0.0429	1.6600e-003	0.0445		601.6393	601.6393	0.0388		602.6085
Worker	0.1760	0.0928	1.2128	4.5300e-003	0.5915	3.2100e-003	0.5947	0.1569	2.9600e-003	0.1598		452.1070	452.1070	9.8100e-003		452.3524
Total	**0.2179**	**1.6491**	**1.6686**	**0.0101**	**0.7404**	**4.9500e-003**	**0.7454**	**0.1998**	**4.6200e-003**	**0.2044**		**1,053.7463**	**1,053.7463**	**0.0486**		**1,054.9609**

3.5 Paving - 2028

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**		**5,327.8356**	**5,327.8356**	**1.6344**		**5,368.6951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	**0.1369**	**0.0721**	**0.9433**	**3.5200e-003**	**0.4600**	**2.5000e-003**	**0.4625**	**0.1220**	**2.3000e-003**	**0.1243**		**351.6388**	**351.6388**	**7.6300e-003**		**351.8296**

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**	**0.0000**	**5,327.8355**	**5,327.8355**	**1.6344**		**5,368.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	**0.1369**	**0.0721**	**0.9433**	**3.5200e-003**	**0.4600**	**2.5000e-003**	**0.4625**	**0.1220**	**2.3000e-003**	**0.1243**		**351.6388**	**351.6388**	**7.6300e-003**		**351.8296**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Archit. Coating	10.6658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**11.0075**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574

Total	**0.0342**	**0.0180**	**0.2358**	**8.8000e-004**	**0.1150**	**6.3000e-004**	**0.1156**	**0.0305**	**5.8000e-004**	**0.0311**		**87.9097**	**87.9097**	**1.9100e-003**		**87.9574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**11.0075**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574
Total	**0.0342**	**0.0180**	**0.2358**	**8.8000e-004**	**0.1150**	**6.3000e-004**	**0.1156**	**0.0305**	**5.8000e-004**	**0.0311**		**87.9097**	**87.9097**	**1.9100e-003**		**87.9574**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	952.00	991.00	862.00	2,697,446	2,697,446
Total	952.00	991.00	862.00	2,697,446	2,697,446

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
NaturalGas Unmitigated	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	6407.38	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Total		**0.0691**	**0.5905**	**0.2513**	**3.7700e-003**		**0.0477**	**0.0477**		**0.0477**	**0.0477**		**753.8089**	**753.8089**	**0.0145**	**0.0138**	**758.2884**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	6.40738	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Total		**0.0691**	**0.5905**	**0.2513**	**3.7700e-003**		**0.0477**	**0.0477**		**0.0477**	**0.0477**		**753.8089**	**753.8089**	**0.0145**	**0.0138**	**758.2884**

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	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Unmitigated	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	3.8520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	153.0395	2.9887	188.9106	0.3423		26.4871	26.4871		26.4871	26.4871	2,777.1731	1,164.7059	3,941.8790	2.5629	0.2185	4,071.0475
Landscaping	0.2475	0.0949	8.2423	4.4000e-004		0.0457	0.0457		0.0457	0.0457		14.8552	14.8552	0.0142		15.2109
Total	**157.1390**	**3.0836**	**197.1530**	**0.3427**		**26.5328**	**26.5328**		**26.5328**	**26.5328**	**2,777.1731**	**1,179.5611**	**3,956.7342**	**2.5771**	**0.2185**	**4,086.2584**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	153.0395	2.9887	188.9106	0.3423		26.4871	26.4871		26.4871	26.4871	2,777.1731	1,164.7059	3,941.8790	2.5629	0.2185	4,071.0475
Landscaping	0.2475	0.0949	8.2423	4.4000e-004		0.0457	0.0457		0.0457	0.0457		14.8552	14.8552	0.0142		15.2109
Total	**157.1390**	**3.0836**	**197.1530**	**0.3427**		**26.5328**	**26.5328**		**26.5328**	**26.5328**	**2,777.1731**	**1,179.5611**	**3,956.7342**	**2.5771**	**0.2185**	**4,086.2584**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Otay Ranch Resort Village Year 11 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	200.00	Room	16.40	290,400.00	0
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	155200	0
tblAreaCoating	Area_Nonresidential_Interior	465600	0

tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	300.00	218.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00

tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	0.00	22.60
tblGrading	MaterialExported	0.00	239,069.00
tblGrading	MaterialImported	0.00	239,069.00
tblLandUse	LotAcreage	6.67	16.40
tblLandUse	LotAcreage	0.46	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	51.00	102.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	128.00	256.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4684	1,510.4684	0.3021	0.0000	1,518.0213
Maximum	**1.5861**	**6.0409**	**8.3305**	**0.0170**	**0.3646**	**0.2407**	**0.6054**	**0.0986**	**0.2250**	**0.3236**	**0.0000**	**1,510.4684**	**1,510.4684**	**0.3021**	**0.0000**	**1,518.0213**

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					
2029	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4671	1,510.4671	0.3021	0.0000	1,518.0201
Maximum	**1.5861**	**6.0409**	**8.3305**	**0.0170**	**0.3646**	**0.2407**	**0.6054**	**0.0986**	**0.2250**	**0.3236**	**0.0000**	**1,510.4671**	**1,510.4671**	**0.3021**	**0.0000**	**1,518.0201**

	ROG	NOx	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	**11-7-2028**	**2-6-2029**	0.0330	0.0330
2	**2-7-2029**	**5-6-2029**	1.3460	1.3460
3	**5-7-2029**	**8-6-2029**	2.1975	2.1975
4	**8-7-2029**	**9-30-2029**	1.5201	1.5201
		Highest	2.1975	2.1975

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	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Energy	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
Mobile	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	26.4903	0.0000	26.4903	1.5655	0.0000	65.6287
Water						0.0000	0.0000		0.0000	0.0000	2.0795	0.0000	2.0795	0.2136	5.0400e-003	8.9222

Total	**1.3041**	**0.8331**	**0.7018**	**5.0000e-003**	**1.3614**	**0.0633**	**1.4248**	**0.3342**	**0.0633**	**0.3975**	**28.5699**	**906.9351**	**935.5050**	**1.7965**	**0.0217**	**986.8756**

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	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Energy	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
Mobile	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	26.4903	0.0000	26.4903	1.5655	0.0000	65.6287
Water						0.0000	0.0000		0.0000	0.0000	2.0795	0.0000	2.0795	0.2136	5.0400e-003	8.9222
Total	**1.3041**	**0.8331**	**0.7018**	**5.0000e-003**	**1.3614**	**0.0633**	**1.4248**	**0.3342**	**0.0633**	**0.3975**	**28.5699**	**906.9351**	**935.5050**	**1.7965**	**0.0217**	**986.8756**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2029	6/30/2024	5	0	
2	Utilities	Trenching	2/1/2029	7/31/2029	5	129	
3	Building Construction	Building Construction	3/1/2029	12/31/2029	5	218	
4	Paving	Paving	7/1/2029	12/31/2029	5	132	
5	Architectural Coating	Architectural Coating	7/1/2029	12/31/2029	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 465,600; Non-Residential Outdoor: 155,200; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	59,767.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	256.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.3 Utilities - 2029

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840
Total	**0.1028**	**0.8848**	**1.4897**	**2.2200e-003**		**0.0488**	**0.0488**		**0.0449**	**0.0449**	**0.0000**	**194.7097**	**194.7097**	**0.0630**	**0.0000**	**196.2840**

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	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793
Total	**3.0200e-003**	**1.7200e-003**	**0.0193**	**7.0000e-005**	**0.0103**	**5.0000e-005**	**0.0104**	**2.7500e-003**	**5.0000e-005**	**2.8000e-003**	**0.0000**	**6.7757**	**6.7757**	**1.4000e-004**	**0.0000**	**6.7793**

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838
Total	**0.1028**	**0.8848**	**1.4897**	**2.2200e-003**		**0.0488**	**0.0488**		**0.0449**	**0.0449**	**0.0000**	**194.7095**	**194.7095**	**0.0630**	**0.0000**	**196.2838**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793

Total	**3.0200e-003**	**1.7200e-003**	**0.0193**	**7.0000e-005**	**0.0103**	**5.0000e-005**	**0.0104**	**2.7500e-003**	**5.0000e-005**	**2.8000e-003**	**0.0000**	**6.7757**	**6.7757**	**1.4000e-004**	**0.0000**	**6.7793**

3.4 Building Construction - 2029

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4913**	**503.4913**	**0.1182**	**0.0000**	**506.4455**

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	0.0212	0.7814	0.2393	2.7500e-003	0.0738	8.7000e-004	0.0747	0.0213	8.3000e-004	0.0221	0.0000	271.7396	271.7396	0.0180	0.0000	272.1903
Worker	0.0653	0.0372	0.4163	1.6200e-003	0.2238	1.1600e-003	0.2249	0.0595	1.0600e-003	0.0605	0.0000	146.5653	146.5653	3.0800e-003	0.0000	146.6423
Total	**0.0866**	**0.8185**	**0.6556**	**4.3700e-003**	**0.2976**	**2.0300e-003**	**0.2996**	**0.0808**	**1.8900e-003**	**0.0827**	**0.0000**	**418.3048**	**418.3048**	**0.0211**	**0.0000**	**418.8326**

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	**0.2968**	**2.7053**	**3.4993**	**5.8500e-003**		**0.1145**	**0.1145**		**0.1077**	**0.1077**	**0.0000**	**503.4907**	**503.4907**	**0.1182**	**0.0000**	**506.4449**

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	0.0212	0.7814	0.2393	2.7500e-003	0.0738	8.7000e-004	0.0747	0.0213	8.3000e-004	0.0221	0.0000	271.7396	271.7396	0.0180	0.0000	272.1903
Worker	0.0653	0.0372	0.4163	1.6200e-003	0.2238	1.1600e-003	0.2249	0.0595	1.0600e-003	0.0605	0.0000	146.5653	146.5653	3.0800e-003	0.0000	146.6423
Total	**0.0866**	**0.8185**	**0.6556**	**4.3700e-003**	**0.2976**	**2.0300e-003**	**0.2996**	**0.0808**	**1.8900e-003**	**0.0827**	**0.0000**	**418.3048**	**418.3048**	**0.0211**	**0.0000**	**418.8326**

3.5 Paving - 2029

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	0.1657	1.4711	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5832	316.5832	0.0971	0.0000	319.0111
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1657**	**1.4711**	**2.3241**	**3.7000e-003**		**0.0684**	**0.0684**		**0.0635**	**0.0635**	**0.0000**	**316.5832**	**316.5832**	**0.0971**	**0.0000**	**319.0111**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762
Total	**8.5800e-003**	**4.8900e-003**	**0.0547**	**2.1000e-004**	**0.0294**	**1.5000e-004**	**0.0296**	**7.8200e-003**	**1.4000e-004**	**7.9600e-003**	**0.0000**	**19.2661**	**19.2661**	**4.1000e-004**	**0.0000**	**19.2762**

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	0.1657	1.4710	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5828	316.5828	0.0971	0.0000	319.0107
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1657**	**1.4710**	**2.3241**	**3.7000e-003**		**0.0684**	**0.0684**		**0.0635**	**0.0635**	**0.0000**	**316.5828**	**316.5828**	**0.0971**	**0.0000**	**319.0107**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762
Total	**8.5800e-003**	**4.8900e-003**	**0.0547**	**2.1000e-004**	**0.0294**	**1.5000e-004**	**0.0296**	**7.8200e-003**	**1.4000e-004**	**7.9600e-003**	**0.0000**	**19.2661**	**19.2661**	**4.1000e-004**	**0.0000**	**19.2762**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932
Total	**0.9148**	**0.1501**	**0.2370**	**3.9000e-004**		**6.7500e-003**	**6.7500e-003**		**6.7500e-003**	**6.7500e-003**	**0.0000**	**33.4476**	**33.4476**	**1.8200e-003**	**0.0000**	**33.4932**

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	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994
Total	**7.9700e-003**	**4.5400e-003**	**0.0508**	**2.0000e-004**	**0.0273**	**1.4000e-004**	**0.0275**	**7.2600e-003**	**1.3000e-004**	**7.3900e-003**	**0.0000**	**17.8900**	**17.8900**	**3.8000e-004**	**0.0000**	**17.8994**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932
Total	**0.9148**	**0.1501**	**0.2370**	**3.9000e-004**		**6.7500e-003**	**6.7500e-003**		**6.7500e-003**	**6.7500e-003**	**0.0000**	**33.4476**	**33.4476**	**1.8200e-003**	**0.0000**	**33.4932**

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	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994

Total	**7.9700e-003**	**4.5400e-003**	**0.0508**	**2.0000e-004**	**0.0273**	**1.4000e-004**	**0.0275**	**7.2600e-003**	**1.3000e-004**	**7.3900e-003**	**0.0000**	**17.8900**	**17.8900**	**3.8000e-004**	**0.0000**	**17.8994**

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	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,634.00	1,638.00	1190.00	2,985,063	2,985,063
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	2,520.40	2,478.80	1,598.60	4,234,997	4,234,997

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
NaturalGas Unmitigated	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206

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					
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.0916**	**0.8331**	**0.6998**	**5.0000e-003**		**0.0633**	**0.0633**		**0.0633**	**0.0633**	**0.0000**	**906.9312**	**906.9312**	**0.0174**	**0.0166**	**912.3206**

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					
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		**0.0916**	**0.8331**	**0.6998**	**5.0000e-003**		**0.0633**	**0.0633**		**0.0633**	**0.0633**	**0.0000**	**906.9312**	**906.9312**	**0.0174**	**0.0166**	**912.3206**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.76068e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.76068e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Unmitigated	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Total	**1.2125**	**2.0000e-005**	**2.0200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**1.0000e-005**	**0.0000**	**4.1900e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Total	**1.2125**	**2.0000e-005**	**2.0200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.9300e-003**	**3.9300e-003**	**1.0000e-005**	**0.0000**	**4.1900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	2.0795	0.2136	5.0400e-003	8.9222
Unmitigated	2.0795	0.2136	5.0400e-003	8.9222

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.07335 / 0.563706	1.6095	0.1653	3.9000e-003	6.9057
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		**2.0795**	**0.2136**	**5.0400e-003**	**8.9221**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.07335 / 0.563706	1.6095	0.1653	3.9000e-003	6.9057
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		**2.0795**	**0.2136**	**5.0400e-003**	**8.9221**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.4903	1.5655	0.0000	65.6287
Unmitigated	26.4903	1.5655	0.0000	65.6287

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		**26.4903**	**1.5655**	**0.0000**	**65.6287**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		**26.4903**	**1.5655**	**0.0000**	**65.6287**

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

Otay Ranch Resort Village Year 11 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	200.00	Room	16.40	290,400.00	0
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	155200	0
tblAreaCoating	Area_Nonresidential_Interior	465600	0

tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	300.00	218.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00

tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	0.00	22.60
tblGrading	MaterialExported	0.00	239,069.00
tblGrading	MaterialImported	0.00	239,069.00
tblLandUse	LotAcreage	6.67	16.40
tblLandUse	LotAcreage	0.46	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	51.00	102.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	128.00	256.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

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					
2029	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.0655	4.1645	0.0000	19,536.1784
Maximum	**21.8895**	**70.8793**	**102.5324**	**0.1996**	**3.8450**	**2.9773**	**6.8222**	**1.0355**	**2.7786**	**3.8141**	**0.0000**	**19,432.0655**	**19,432.0655**	**4.1645**	**0.0000**	**19,536.1784**

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					
2029	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.0655	4.1645	0.0000	19,536.1784
Maximum	**21.8895**	**70.8793**	**102.5324**	**0.1996**	**3.8450**	**2.9773**	**6.8222**	**1.0355**	**2.7786**	**3.8141**	**0.0000**	**19,432.0655**	**19,432.0655**	**4.1645**	**0.0000**	**19,536.1784**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Energy	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
Mobile	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Total	**7.1468**	**4.5651**	**3.8569**	**0.0274**	**8.1309**	**0.3470**	**8.4780**	**1.9958**	**0.3470**	**2.3428**		**5,477.9685**	**5,477.9685**	**0.1051**	**0.1004**	**5,510.5242**

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	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Energy	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
Mobile	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Total	**7.1468**	**4.5651**	**3.8569**	**0.0274**	**8.1309**	**0.3470**	**8.4780**	**1.9958**	**0.3470**	**2.3428**		**5,477.9685**	**5,477.9685**	**0.1051**	**0.1004**	**5,510.5242**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2029	6/30/2024	5	0	
2	Utilities	Trenching	2/1/2029	7/31/2029	5	129	
3	Building Construction	Building Construction	3/1/2029	12/31/2029	5	218	
4	Paving	Paving	7/1/2029	12/31/2029	5	132	
5	Architectural Coating	Architectural Coating	7/1/2029	12/31/2029	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 465,600; Non-Residential Outdoor: 155,200; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38

Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	59,767.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	256.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.3 Utilities - 2029

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**		**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926
Total	**0.0462**	**0.0242**	**0.3195**	**1.2200e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**122.1283**	**122.1283**	**2.5700e-003**		**122.1926**

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	**1.5938**	**13.7180**	**23.0959**	**0.0344**		**0.7559**	**0.7559**		**0.6955**	**0.6955**	**0.0000**	**3,327.6075**	**3,327.6075**	**1.0762**		**3,354.5129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926
Total	**0.0462**	**0.0242**	**0.3195**	**1.2200e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**122.1283**	**122.1283**	**2.5700e-003**		**122.1926**

3.4 Building Construction - 2029

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**		**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1906	7.1281	2.0986	0.0255	0.6905	7.8600e-003	0.6984	0.1988	7.5200e-003	0.2063		2,777.0829	2,777.0829	0.1788		2,781.5518
Worker	0.5916	0.3094	4.0892	0.0157	2.1030	0.0106	2.1136	0.5578	9.7600e-003	0.5676		1,563.2416	1,563.2416	0.0329		1,564.0650
Total	**0.7822**	**7.4376**	**6.1878**	**0.0412**	**2.7935**	**0.0185**	**2.8119**	**0.7566**	**0.0173**	**0.7739**		**4,340.3245**	**4,340.3245**	**0.2117**		**4,345.6168**

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	**2.7229**	**24.8194**	**32.1036**	**0.0537**		**1.0500**	**1.0500**		**0.9878**	**0.9878**	**0.0000**	**5,091.7811**	**5,091.7811**	**1.1951**		**5,121.6573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1906	7.1281	2.0986	0.0255	0.6905	7.8600e-003	0.6984	0.1988	7.5200e-003	0.2063		2,777.0829	2,777.0829	0.1788		2,781.5518
Worker	0.5916	0.3094	4.0892	0.0157	2.1030	0.0106	2.1136	0.5578	9.7600e-003	0.5676		1,563.2416	1,563.2416	0.0329		1,564.0650
Total	**0.7822**	**7.4376**	**6.1878**	**0.0412**	**2.7935**	**0.0185**	**2.8119**	**0.7566**	**0.0173**	**0.7739**		**4,340.3245**	**4,340.3245**	**0.2117**		**4,345.6168**

3.5 Paving - 2029

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**		**5,327.8356**	**5,327.8356**	**1.6344**		**5,368.6951**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392
Total	**0.1294**	**0.0677**	**0.8945**	**3.4300e-003**	**0.4600**	**2.3200e-003**	**0.4624**	**0.1220**	**2.1400e-003**	**0.1242**		**341.9591**	**341.9591**	**7.2000e-003**		**342.1392**

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5290**	**22.4587**	**35.4823**	**0.0566**		**1.0445**	**1.0445**		**0.9701**	**0.9701**	**0.0000**	**5,327.8355**	**5,327.8355**	**1.6344**		**5,368.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392
Total	**0.1294**	**0.0677**	**0.8945**	**3.4300e-003**	**0.4600**	**2.3200e-003**	**0.4624**	**0.1220**	**2.1400e-003**	**0.1242**		**341.9591**	**341.9591**	**7.2000e-003**		**342.1392**

3.6 Architectural Coating - 2029

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	13.6241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**13.9658**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007
Total	**0.1202**	**0.0629**	**0.8306**	**3.1800e-003**	**0.4272**	**2.1600e-003**	**0.4293**	**0.1133**	**1.9800e-003**	**0.1153**		**317.5335**	**317.5335**	**6.6900e-003**		**317.7007**

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	13.6241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**13.9658**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007
Total	**0.1202**	**0.0629**	**0.8306**	**3.1800e-003**	**0.4272**	**2.1600e-003**	**0.4293**	**0.1133**	**1.9800e-003**	**0.1153**		**317.5335**	**317.5335**	**6.6900e-003**		**317.7007**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,634.00	1,638.00	1190.00	2,985,063	2,985,063
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	2,520.40	2,478.80	1,598.60	4,234,997	4,234,997

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
NaturalGas Unmitigated	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	46440.1	0.5008	4.5530	3.8245	0.0273		0.3460	0.3460		0.3460	0.3460		5,463.5449	5,463.5449	0.1047	0.1002	5,496.0120
Strip Mall	122.192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		**0.5021**	**4.5649**	**3.8345**	**0.0274**		**0.3469**	**0.3469**		**0.3469**	**0.3469**		**5,477.9204**	**5,477.9204**	**0.1050**	**0.1004**	**5,510.4729**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	46.4401	0.5008	4.5530	3.8245	0.0273		0.3460	0.3460		0.3460	0.3460		5,463.5449	5,463.5449	0.1047	0.1002	5,496.0120

Strip Mall	0.122192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		**0.5021**	**4.5649**	**3.8345**	**0.0274**		**0.3469**	**0.3469**		**0.3469**	**0.3469**		**5,477.9204**	**5,477.9204**	**0.1050**	**0.1004**	**5,510.4729**

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	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Unmitigated	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

Total	**6.6446**	**2.0000e-004**	**0.0224**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0513**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Total	**6.6446**	**2.0000e-004**	**0.0224**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0513**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

Appendix C

Calculation of GHGs from Energy Use

Table C-1

Title 24 as of 2016 Homes - GHG Emission Calculations, Proposed Project

		lbs/year			
		CO2	**CH4**	**N2O**	**CO2e**
Model 1					
Total kWh	7130.0	2578.821	0.103813	0.021476	2587.816
Total Therms	355.0				
MMBTU	35.5	4176.471	0.080049	0.076569	4201.289
TOTAL		**6755.292**	**0.183862**	**0.098044**	**6789.105**
Number of Units	**940**				
Net GHG Emissions, Metric tpy		**2881.114**	**0.078417**	**0.041816**	**2895.535**
Model 2					
Total kWh	7286	2635.244	0.106084	0.021945	2644.436
Total Therms	397.1				
MMBTU	39.71	4671.765	0.089542	0.085649	4699.527
TOTAL		**7307.009**	**0.195626**	**0.107594**	**7343.963**
Number of Units	**941**				
Net GHG Emissions, Metric tpy		**3119.735**	**0.083523**	**0.045938**	**3135.512**
Total GHG Emissions, Metric tpy		**6000.848**	**0.161939**	**0.087753**	**6031.047**

lbs/kWh, assuming 60% RPS		
CO2	**CH4**	**N2O**
361.686	0.01456	0.003012

Table C-2

Title 24 as of 2016 Homes - GHG Emission Calculations, Optional Development Scenario

		lbs/year			
		CO2	**CH4**	**N2O**	**CO2e**
Model 1					
Total kWh	7130.0	2578.821	0.103813	0.021476	2587.816
Total Therms	355.0				
MMBTU	35.5	4176.471	0.080049	0.076569	4201.289
TOTAL		**6755.292**	**0.183862**	**0.098044**	**6789.105**
Number of Units	**969**				
Net GHG Emissions, Metric tpy		**2969.999**	**0.080836**	**0.043106**	**2984.865**
Model 2					
Total kWh	7286	2635.244	0.106084	0.021945	2644.436
Total Therms	397.1				
MMBTU	39.71	4671.765	0.089542	0.085649	4699.527
TOTAL		**7307.009**	**0.195626**	**0.107594**	**7343.963**
Number of Units	**969**				
Net GHG Emissions, Metric tpy		**3212.564**	**0.086008**	**0.047304**	**3228.811**
Total GHG Emissions, Metric tpy		**6182.563**	**0.166844**	**0.09041**	**6213.677**

lbs/kWh, assuming 50% RPS		
CO2	**CH4**	**N2O**
361.686	0.01456	0.003012

Table C-3
Net Zero Homes - GHG Emission Calculations, Proposed Project

		lbs/year			
		CO2	**CH4**	**N2O**	**CO2e**
Model 1					
Total kWh	7038.2	2545.621	0.102476	0.021199	2554.5
Total Therms	294.9				
MMBTU	29.48808	3469.186	0.066493	0.063602	3489.801
TOTAL		**6014.807**	**0.168969**	**0.084801**	**6044.302**
PV System	10106.9	3655.524	0.147156	0.030442	3668.275
Net GHG Emissions, lbs/yr		**2359.283**	**0.021813**	**0.054359**	**2376.027**
Number of Units	**940**				
Net GHG Emissions, Metric tpy		**1006.228**	**0.009303**	**0.023184**	**1013.369**
Model 2					
Total kWh	7086.96	2563.254	0.103186	0.021346	2572.195
Total Therms	337.8438				
MMBTU	33.78438	3974.633	0.07618	0.072868	3998.252
TOTAL		**6537.887**	**0.179367**	**0.094214**	**6570.447**
PV System	10269.9	3714.479	0.14953	0.030933	3727.435
Net GHG Emissions, lbs/yr		**2823.408**	**0.029837**	**0.063281**	**2843.012**
Number of Units	**941**				
Net GHG Emissions, Metric tpy		**1205.457**	**0.012739**	**0.027018**	**1213.827**
Total GHG Emissions, Metric tpy		**2211.685**	**0.022042**	**0.050202**	**2227.196**

lbs/kWh, assuming 50% RPS		
CO2	**CH4**	**N2O**
361.686	0.01456	0.003012

Table C-4

Net Zero Homes - GHG Emission Calculations, Optional Development Scenario

		lbs/year			
		CO2	**CH4**	**N2O**	**CO2e**
Model 1					
Total kWh	7038.2	2545.621	0.102476	0.021199	2554.5
Total Therms	294.9				
MMBTU	29.48808	3469.186	0.066493	0.063602	3489.801
TOTAL		**6014.807**	**0.168969**	**0.084801**	**6044.302**
PV System	10106.9	3655.524	0.147156	0.030442	3668.275
Net GHG Emissions, lbs/yr		**2359.283**	**0.021813**	**0.054359**	**2376.027**
Number of Units	**969**				
Net GHG Emissions, Metric tpy		**1037.271**	**0.00959**	**0.023899**	**1044.632**
Model 2					
Total kWh	7086.96	2563.254	0.103186	0.021346	2572.195
Total Therms	337.8438				
MMBTU	33.78438	3974.633	0.07618	0.072868	3998.252
TOTAL		**6537.887**	**0.179367**	**0.094214**	**6570.447**
PV System	10269.9	3714.479	0.14953	0.030933	3727.435
Net GHG Emissions, lbs/yr		**2823.408**	**0.029837**	**0.063281**	**2843.012**
Number of Units	**969**				
Net GHG Emissions, Metric tpy		**1241.326**	**0.013118**	**0.027822**	**1249.945**
Total GHG Emissions, Metric tpy		**2278.597**	**0.022708**	**0.051721**	**2294.577**

lbs/kWh, assuming 50% RPS		
CO2	**CH4**	**N2O**
361.686	0.01456	0.003012

Table C-5
GHG Emissions from Energy Use
Proposed Project with Project Design Features and Regulatory Compliance Measures

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use[1]				
Condo/Townhouse	46.9747	2.05E-03	4.10E-04	47.15
Elementary School	43.1225	1.74E-03	3.60E-04	43.27
Government Office Building	22.0494	8.90E-04	1.80E-04	22.13
Hotel	616.9696	0.0248	5.14E-03	619.12
Retail	82.4227	3.32E-03	6.90E-04	82.71
TOTAL Electricity	**811.5389**	**0.0328**	**0.00678**	**814.38**
GHG Emissions from Natural Gas[1]				
Condo/Townhouse	43.7489	8.40E-04	8.00E-04	44.01
Elementary School	15.8469	3.00E-04	2.90E-04	15.94
Government Office Building	10.7742	2.10E-04	2.00E-04	10.84
Hotel	904.5511	0.0173	0.0166	909.93
Retail	4.7601	9.00E-05	9.00E-05	4.79
TOTAL Natural Gas	**979.6812**	**0.01874**	**0.01798**	**985.51**
GHG Emissions from Electricity and Natural Gas for Single-Family Homes[2]				
Single-Family Housing	6000.848	0.161939	0.087753	6031.047
TOTAL GHG EMISSIONS	**7792.068**	**0.213479**	**0.112513**	**7830.934**

Table C-6
GHG Emissions from Energy Use
Optional Development Scenario with Project Design Features and Regulatory Compliance Measures

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use[1]				
Elementary School	43.1225	1.74E-03	3.60E-04	43.27
Government Office Building	22.0494	8.90E-04	1.80E-04	22.13
Hotel	616.9696	0.0248	5.14E-03	619.12
Retail	41.2118	1.71E-03	3.40E-04	41.36
TOTAL Electricity	**723.3533**	**0.02914**	**0.00602**	**725.8758**
GHG Emissions from Natural Gas[1]				
Elementary School	15.8469	3.00E-04	2.90E-04	15.94
Government Office Building	10.7742	2.10E-04	2.00E-04	10.84
Hotel	904.5511	0.0173	0.0166	909.93
Retail	2.38	5.00E-05	4.00E-05	2.39
TOTAL Natural Gas	**933.5522**	**0.01786**	**0.01713**	**939.1034**
GHG Emissions from Electricity and Natural Gas for Single-Family Homes[2]				
Single-Family Housing	6182.563	0.166844	0.09041	6213.677
TOTAL GHG EMISSIONS	**7839.469**	**0.213844**	**0.11356**	**7878.656**

Table C-7
GHG Emissions from Energy Use
Proposed Project with Mitigation

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use[1]				
Condo/Townhouse	44.1272	1.78E-03	3.70E-04	44.28
Elementary School	38.7362	1.56E-03	3.20E-04	38.87
Government Office Building	20.3473	8.20E-04	1.70E-04	20.42
Hotel	554.6772	0.0223	4.62E-03	556.61
Retail	74.2133	2.99E-03	6.20E-04	74.47
TOTAL Electricity	**732.1012**	**0.02945**	**0.0061**	**734.6553**
GHG Emissions from Natural Gas[1]				
Condo/Townhouse	40.6454	7.80E-04	7.50E-04	40.89
Elementary School	14.3907	2.80E-04	2.60E-04	14.48
Government Office Building	9.9209	1.90E-04	1.80E-04	9.98
Hotel	831.2975	0.0159	0.0152	836.22
Retail	4.5167	9.00E-05	8.00E-05	4.54
TOTAL Natural Gas	**900.7712**	**0.01724**	**0.01647**	**906.1103**
GHG Emissions from Electricity and Natural Gas for Single-Family Homes[2]				
Single-Family Housing	2211.685	0.022042	0.050202	2227.196
TOTAL GHG EMISSIONS	**3844.557**	**0.068732**	**0.072772**	**3867.961**

Table C-8
GHG Emissions from Energy Use
Optional Development Scenario with Mitigation

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use[1]				
Elementary School	38.7362	1.56E-03	3.20E-04	38.87
Government Office Building	20.3473	8.20E-04	1.70E-04	20.42
Hotel	554.6772	0.0223	4.62E-03	556.61
Retail	37.1071	1.54E-03	3.10E-04	37.24
TOTAL Electricity	**650.8678**	**0.02622**	**0.00542**	**653.1385**
GHG Emissions from Natural Gas[1]				
Elementary School	14.3907	2.80E-04	2.60E-04	14.48
Government Office Building	9.9209	1.90E-04	1.80E-04	9.98
Hotel	831.2975	0.0159	0.0152	836.22
Retail	2.2584	4.00E-05	4.00E-05	2.27
TOTAL Natural Gas	**857.8675**	**0.01641**	**0.01568**	**862.9504**
GHG Emissions from Electricity and Natural Gas for Single-Family Homes[2]				
Single-Family Housing	2278.597	0.022708	0.051721	2294.577
TOTAL GHG EMISSIONS	**3787.332**	**0.065338**	**0.072821**	**3810.666**

VILLAGE 13

Building Analysis



An estimation of annual energy use and PV production for two residential building prototypes designed to meet the 2016 California Energy Code and the California Energy Commission's Zero Net Energy definition from the 2015 Integrated Energy Policy Report.

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EXECUTIVE SUMMARY

This report examines two of the client's single-family residential building designs that are representative prototypes for the proposed Village 13 development. The primary objective is to determine annual energy use when each home is configured with equipment options that: (i) will likely be used to meet the 2016 California Energy Code, and (ii) can be used to achieve the California Energy Commission's (CEC) Zero Net Energy (ZNE) parameters, as defined in the 2015 Integrated Energy Policy Report (2015 IEPR). In conjunction with the latter exercise, this report determines the amount of rooftop PV that would be required for each design to reach ZNE. Annual energy use (in kWh and therms) was calculated for each building. Annual energy use consists of "regulated loads"—end uses covered by the California Building Energy Efficiency Standards (California Energy Code Title 24, Part 6)—and "unregulated loads", which are not regulated by Title 24.

As indicated above, two building designs provided by the clients were considered in the analysis:

- 3,727 square foot, two-story single-family home; Residence 3
- 4,946 square foot, two-story single-family home; Residence 7

Residential Assessment

Methods and Assumptions

Each building was modeled using the CEC's public-domain compliance software, known as CBECC-Res[1], to calculate code compliance and annual energy use. The residential buildings were assumed to be in Climate Zone 10 (Otay Ranch).

Site energy in kWh and therms was calculated for each home using prescriptive features, taken from the standard building design, that meet the 2016 California Energy Code. An additional option was calculated to meet the CEC's ZNE definition in the 2015 IEPR. ConSol assumed that each ZNE home was 15%[2] more efficient than required by 2016 code, and incorporated enough on-site renewable energy so that the value of annual energy generation matches annual building energy consumption.

ConSol modeled each of the two residential buildings with "worst case" orientation in order to determine the minimum requirements to achieve code compliance in all building configurations. Features listed in Table 1 and Table 2 represent the features that were modeled in each calculation run. The feature selections were based on the approach to code-compliance (i.e. prescriptive or performance), feasibility and cost-effectiveness. The following approaches to compliance were used for the modeling runs:

- Run 1: Prescriptive approach where features are taken from the standard building design.
- Run 2: Performance approach to achieve ZNE.

[1] "CBECC Res" is shorthand for California Building Energy Code Compliance – Residential

[2] The increased efficiency above the 2016 code is intended to represent efficiency improvements likely to be included in a Zero Net Energy home design.

The first column in each table represents buildings designed to meet the 2016 code**.** The second column represents buildings designed to achieve ZNE by exceeding the 2016 code by 15% prior to the addition of the photovoltaic (PV) system necessary to reach ZNE. Features that are highlighted in yellow represent a change from the features listed in the prescriptive approach (Run 1).

TABLE 1: RESIDENCE 3 2016 CALIFORNIA ENERGY CODE AND ZNE COMPLIANCE OPTIONS

Village 13 - Plan 3 (5520 Model) Otay Ranch Climate Zone 10 3727 Sqft / 2-Story / 19.4% Glazing	2016 Building Features	ZNE Building Features
Run	**Prescriptive (w/ 2x6 Walls)**	**HPW (2x6 wall), HPA (R-38 BN), 14 SEER/12.2 EER HVAC &**
File Number	**1**	**4**
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Compliance Margins		
Worst Case % Above Code (2016 Code)	**4.1%**	**15.3%**
Worst Case Magin Above Code (2016 Code) - kTDV	**1.39**	**5.22**
Proposed Design Budget	**32.71**	**28.88**
Envelope: Opaque Surfaces		
Wall Insulation - 2x4 Exterior Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Walls	R-21+R4	R-21+R4
Wall Insulation - 2x4 Interior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Interior Garage Walls	R-21	R-21
Wall Insulation - 2x4 Exterior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Garage Walls	R-0+R4	R-0+R4
Attic Insulation - Flat Portions	R-38	**R-0**
Attic Insulation - At Furnace Platform	R-21	**R-0**
Floor Insulation - Above Garage	R-19	R-19
Floor Insulation - Cantilever	R-19	R-19
Insulation Installation [Verification] - QII	N/A	**Required**
Air Infiltration [Testing] - Blower Door	5.0 ACH	5.0 ACH
Roofing Material	Tile	Tile
Roofing Properties (Reflectance / Emittance)	0.20 / 0.75	**0.10 / 0.85**
Below Roof Deck Insulation	R-13	**R-38**
Ventilated Attic (Yes / No)	Yes	**No**
Envelope: Glazing (U-Factor / SHGC)		
Horizontal Slider	0.32 / 0.25	0.32 / 0.25
Single Hung	0.32 / 0.25	0.32 / 0.25
Fixed	0.32 / 0.25	0.32 / 0.25
Patio Door	0.32 / 0.25	0.32 / 0.25
French Door	0.32 / 0.25	0.32 / 0.25
HVAC: Space Heating, Cooling Systems		
Space Heating Type	Furnace	Furnace
Space Heating Efficiency (AFUE)	0.80	0.80
Space Cooling Type	ACSplit	ACSplit
Space Cooling Efficiency (SEER / EER)	14 / 11.7	**14 / 12.2**
EER [Verification]	N/A	**Required**
Refrigerant Charge [Verification/Testing]	Required	Required
Fan Watt Draw [Testing]	0.58 W/cfm	0.58 W/cfm
Adequate Airflow [Testing]	350 cfm/ton	350 cfm/ton
Low Leakage Air Handler [Verification]	N/A	N/A
HVAC: Duct System		
Duct Insulation R-Value	R-8	**R-6**
Duct Location	Attic	Attic
Low Leakage (Tight) Ducts [Testing]	Required @ 5%	Required @ 5%
HVAC: Mechanical Ventilation		
Minimum Whole-House Ventilation, Continuous	82.27 cfm	82.27 cfm
Ventilation System Type	Exhaust	Exhaust
Ventilation System Efficiency (cfm / W/cfm)	82.27 / 0.25	82.27 / 0.25
Whole House Fan	Required	**N/A**
Water Heating		
Water Heater Type	Tankless	Tankless
Water Heater Efficiency (EF)	0.82	**0.98**
Fuel Source	Natural Gas	Natural Gas
Distribution Type	Standard	Standard

TABLE 2: RESIDENCE 7 2016 CALIFORNIA ENERGYCODE AND ZNE COMPLIANCE OPTIONS

Village 13 - Plan 7 (6020 Model) Otay Ranch Climate Zone 10 4946 Sqft / 2-Story / 17% Glazing	2016 Building Features	ZNE Building Features
Run	Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), .98 EF DHW, 14 SEER/12.2 EER HVAC, R-7.5 Door & QII
File Number	1	4
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Compliance Margins		
Worst Case % Above Code (2016 Code)	1.1%	15.5%
Worst Case Magin Above Code (2016 Code) - kTDV	0.30	4.16
Proposed Design Budget	26.49	22.63
Envelope: Opaque Surfaces		
Wall Insulation - 2x4 Exterior Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Walls	R-21+R4	R-21+R4
Wall Insulation - 2x4 Interior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Interior Garage Walls	R-21	R-21
Insulated Entry Door(s)	N/A	R-7.5
Wall Insulation - 2x4 Exterior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Garage Walls	R-0+R4	R-0+R4
Attic Insulation - Flat Portions	R-38	R-0
Attic Insulation - At Furnace Platform	R-21	R-0
Floor Insulation - Above Garage	R-19	R-19
Floor Insulation - Cantilever	R-19	R-19
Insulation Installation [Verification] - QII	N/A	Required
Air Infiltration [Testing] - Blower Door	5.0 ACH	5.0 ACH
Roofing Material	Tile	Tile
Roofing Properties (Reflectance / Emittance)	0.20 / 0.75	0.10 / 0.85
Below Roof Deck Insulation	R-13	R-38
Flat Roof cavity Insulation	R-30	R-30
Ventilated Attic (Yes / No)	Yes	No
HPA HERS Inspection	N/A	N/A
Horizontal Slider	0.32 / 0.25	0.31 / 0.22
Single Hung	0.32 / 0.25	0.31 / 0.22
Fixed	0.32 / 0.25	0.31 / 0.22
Patio Door	0.32 / 0.25	0.31 / 0.22
French Door	0.32 / 0.25	0.31 / 0.22
HVAC: Space Heating, Cooling Systems		
Space Heating Type	Furnace	Furnace
Space Heating Efficiency (AFUE)	0.80	0.80
Space Cooling Type	ACSplit	ACSplit
Space Cooling Efficiency (SEER / EER)	14 / 11.7	14 / 12.2
EER [Verification]	N/A	Required
Refrigerant Charge [Verification/Testing]	Required	Required
Fan Watt Draw [Testing]	0.58 W/cfm	0.58 W/cfm
Adequate Airflow [Testing]	350 cfm/ton	350 cfm/ton
HVAC: Duct System		
Duct Insulation R-Value	R-8	R-8
Duct Location	Attic	Attic
Low Leakage (Tight) Ducts [Testing]	Required @ 5%	Required @ 5%
HVAC: Mechanical Ventilation		
Minimum Whole-House Ventilation, Continuous	94.46 cfm	94.46 cfm
Ventilation System Type	Exhaust	Exhaust
Ventilation System Efficiency (cfm / W/cfm)	94.46 / 0.25	94.46 / 0.25
Whole House Fan	Required	N/A
Water Heating		
Water Heater Type	Tankless	Tankless
Water Heater Efficiency (EF)	0.82	0.98
Fuel Source	Natural Gas	Natural Gas
Distribution Type	Standard	Standard

TABLE 3: RESIDENCE 3 SITE ENERGY USES AND PV SIZING

Village 13 - Plan 3 (5520 Model) Otay Ranch Climate Zone 10 3727 Sqft / 2-Story / 19.4% Glazing	2016 Building Features	ZNE Building Features
Run	Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), 14 SEER/12.2 EER HVAC &
File Number	1	4
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Regulated Loads from CBEEC Log File (Space Heating, Cooling & Water Heating)		
kWh	1263.1	1166.6
Therms	338.9	278.4
Unregulated Loads from CBECC Log File (Inside & Exterior Lighting, Appliance & Cook, Plug Loads)		
Interior Lighting kWh	804.4	804.4
Appliance & Cooking kWh	2140.3	2144.4
Plug Load kWh	2716.7	2716.7
Exterior Lighting kWh	206.1	206.1
Appliance & Cooking Therms	16.5	16.5
Total kWh	7130.6	7038.2
Total Therms	355.4	294.9
Final EDR of Proposed Design w/ PV		-0.5
PV Sizing		6.1
PV Production kWH		9995.9
PV Production TDV		64.1
PV Production EDR		43.6
Proposed Design TDV		63.4
Proposed Design EDR		43.1

TABLE 4: RESIDENCE 7 SITE ENERGY USES AND PV SIZING

Village 13 - Plan 7 (6020 Model) Otay Ranch Climate Zone 10 4946 Sqft / 2-Story / 17% Glazing	2016 Building Features	ZNE Building Features
Run	Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), .98 EF DHW, 14 SEER/12.2 EER HVAC, R-7.5 Door & QII
File Number	1	4
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Regulated Loads from CBEEC Log File (Space Heating, Cooling & Water Heating)		
kWh	1321.4	1118.7
Therms	380.6	321.3
Unregulated Loads from CBECC Log File (Inside & Exterior Lighting, Appliance & Cook, Plug Loads)		
Interior Lighting kWh	882.0	882.0
Appliance & Cooking kWh	2137.3	2141.0
Plug Load kWh	2716.7	2716.7
Exterior Lighting kWh	228.6	228.6
Appliance & Cooking Therms	16.5	16.5
Total kWh	7286.0	7087.0
Total Therms	397.1	337.8
Final EDR of Proposed Design w/ PV		-0.2
PV Sizing		6.2
PV Production kWH		10234.4
PV Production TDV		49.3
PV Production EDR		38.6
Proposed Design TDV		49.1
Proposed Design EDR		38.4

PV Sizing and Placement to meet ZNE

Once the building models were completed to exceed the 2016 code by 15%, the PV systems were sized to bring the homes to ZNE. In accordance with the CEC's methodology, ConSol used CBECC software to determine the minimum required PV system to achieve ZNE under worst-case building orientation (but still assuming the PV system could be mounted to face south). CBECC uses an Energy Design Rating (EDR) to represent regulated and unregulated loads, as well as annual PV production, when demonstrating that a building is designed to reach ZNE. The EDR is based on Time Dependent Valuation (TDV) energy, which assigns greater value to electricity produced or consumed at peak periods. TDV and the associated EDR metric have been identified by the CEC as the appropriate means of demonstrating ZNE in California. In order for a building to reach ZNE, the PV EDR must be greater than the proposed design EDR.

ConSol used a standard PV system with an azimuth of 180° (South) to design the appropriate system for each roof layout. Per CBECC Res software, Residence 3 needed a 6.1 kW system while Residence 7 needed a 6.2 kW system, to reach ZNE.

ConSol selected roof layouts for each residence to determine if a system meeting the minimum PV output could be placed on the roof in each cardinal orientation. Residence 3 worst case design required a minimum of 9995.9 kWh of PV production per year to be ZNE while Residence 7 worst case design required a minimum of 10,234.4 kWh of PV production per year. A standard 270-watt panel (approx. 5.5 ft x 3.5 ft) and standard string inverter were used when calculating production and sizes. The client may use more efficient or different size PV panels to achieve a ZNE home as long as the minimum yearly PV production is achieved per residence type.

Each PV system was designed to achieve annual kwh production equal to or better than the required production required to meet ZNE. Our PV system designs suggest the best possible placement of the PV panels given the house facing either North, South, East or West. The roof layouts that were selected for the assessment consisted of multiple surfaces. To meet the minimum PV yearly production, some roof configurations needed panels to be installed on multiple roof planes. Some of these configurations required a larger PV system to achieve ZNE, as not all the panels could be faced South as in the best case PV calculations. In some instances, the design has PV arrays located over attic vent locations on the plans. A low profile vent may be located under the PV array, or the vent may be relocated to allow room for the PV system. California Fire Code was taken into consideration when designing the layout. Fire Code dictates that PV arrays must be a minimum of three feet from the ridge have one-and-a-half-foot clearance on each side of the array, as well as one-and-a-half-foot clearance from hips and valleys.

MODEL 3B (5:12 PITCH) - FIGURE 2

- **North facing house: Total system size = 7.02 kW (DC)**
  - (26) 270 watt panels, Total Est Annual production = 10,346 kwh
    - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
    - (6) panels facing south (180°), Est Annual Production = 2,624 kwh

- **South facing house: Total system size = 7.29 kW (DC)**
  - (27) 270 watt panels, Total Est Annual production = 10,328 kwh
    - (27) panels facing west (270°), Est Annual Production = 10,328 kwh

- **East facing house: Total system size = 6.48 kW (DC)**
  - (24) 270 watt panels, Total Est Annual production = 10,269 kwh
    - (24) panels facing south (180°) Est Annual production = 10,269 kwh

- **West facing house: Total system size = 6.21 kW (DC)**
  - (23) 270 watt panels, Total Est Annual production = 10,106 kwh
    - (23) panels facing south (180°) Est Annual production = 10,106 kwh

MODEL 3C (5:12 PITCH) - FIGURE 3

- **North facing house: Total system size = 7.56 kW (DC)**
  - (28) 270 watt panels, Total Est Annual production = 10,620 kwh
    - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
    - (8) panels facing east (90°), Est Annual Production = 2,898 kwh

- **South facing house: Total system size = 7.02 kW (DC)**
  - (26) 270 watt panels, Total Est Annual production = 10,346 kwh
    - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
    - (6) panels facing south (180°), Est Annual Production = 2,624 kwh

- **East facing house: Total system size = 6.75 kW (DC)**
  - (25) 270 watt panels, Total Est Annual production = 10,668 kwh
    - (20) panels facing south (180°) Est Annual production = 8,737 kwh
    - (5) panels facing west (270°) Est Annual production = 1,931

- **West facing house: Total system size = 6.75 kW (DC)**
  - (25) 270 watt panels, Total Est Annual production = 10,668 kwh
    - (20) panels facing south (180°) Est Annual production = 8,737 kwh
    - (5) panels facing west (270°) Est Annual production = 1,931

MODEL 7B (6:12 PITCH) - FIGURE 4

- **North facing house: Total system size = 7.02 kW (DC)**
  - (26) 270 watt panels, Total Est Annual production = 10,397 kwh
    - (18) panels facing west (270°), Est Annual Production = 6,876 kwh
    - (8) panels facing south (180°), Est Annual Production = 3,521 kwh

- **South facing house: Total system size = 7.02 kW (DC)**
  - (26) 270 watt panels, Total Est Annual production = 10,397 kwh
    - (18) panels facing west (270°), Est Annual Production = 6,876 kwh
    - (8) panels facing south (180°), Est Annual Production = 3,521 kwh

- **East facing house: Total system size = 6.21 kW (DC)**
  - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
    - (23) panels facing south (180°) Est Annual production = 10,123 kwh

- **West facing house: Total system size = 6.21 kW (DC)**
  - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
    - (23) panels facing south (180°) Est Annual production = 10,123 kwh

MODEL 7C (6:12 PITCH) - FIGURE 5

- **North facing house: Total system size = 7.29 kW (DC)**
  - (27) 270 watt panels, Total Est Annual production = 10,314 kwh
    - (27) panels facing west (270°), Est Annual Production = 10,314 kwh

- **South facing house: Total system size = 7.02 kW (DC)**
  - (26) 270 watt panels, Total Est Annual production = 10,339 kwh
    - (19) panels facing west (270°), Est Annual Production = 7,258 kwh
    - (7) panels facing south (180°), Est Annual Production = 3,081 kwh

- **East facing house: Total system size = 6.48 kW (DC)**
  - (24) 270 watt panels, Total Est Annual production = 10,272 kwh
    - (19) panels facing south (180°) Est Annual production = 8,362 kwh
    - (5) panels facing west (270°) Est Annual Production = 1,910

- **West facing house: Total system size = 6.21 kW (DC)**
  - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
    - (23) panels facing south (180°) Est Annual production = 10,123 kwh

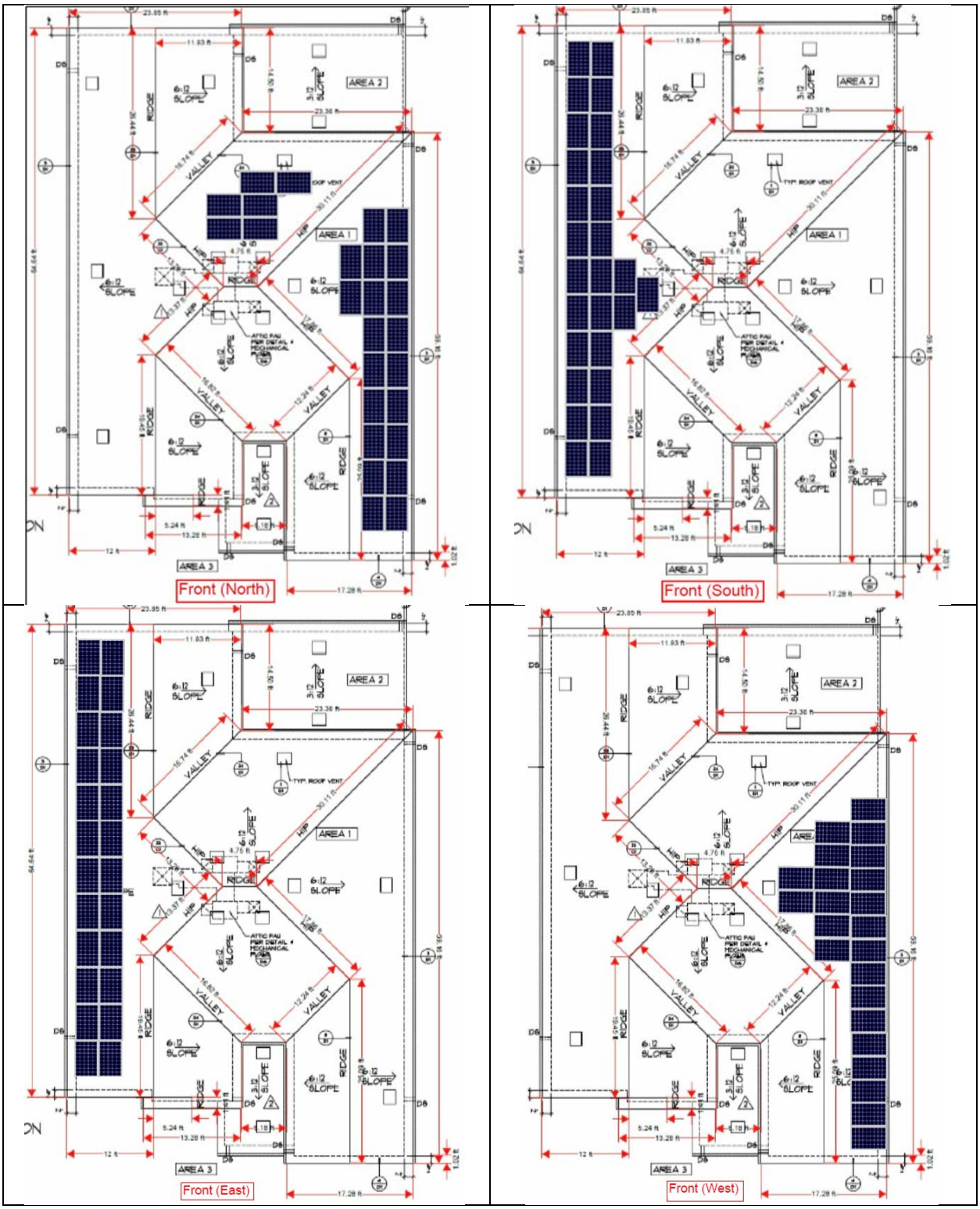


FIGURE 1: ROOF PLAN 3B - FRONT FACING NORTH, SOUTH, EAST AND WEST

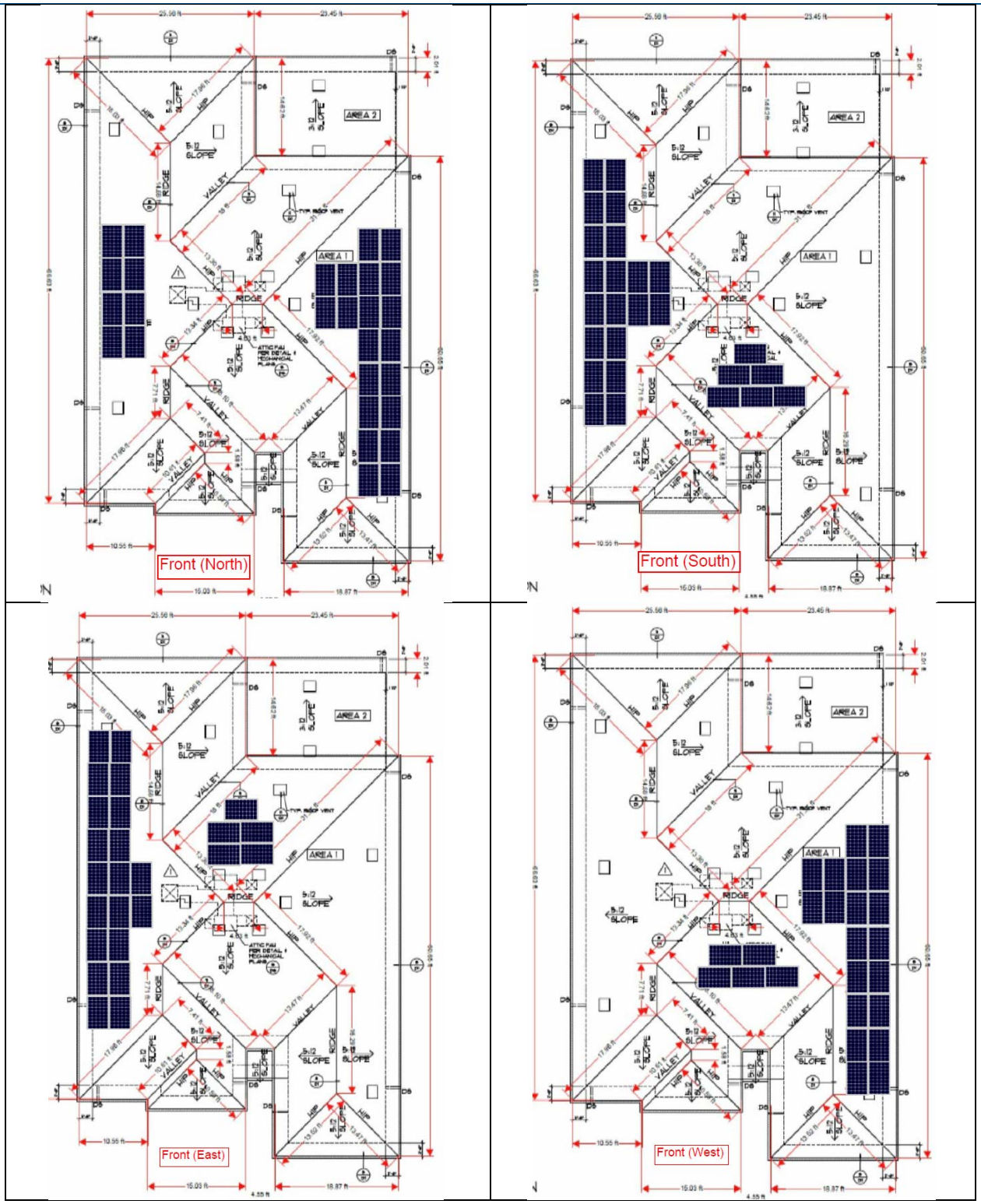


FIGURE 2: ROOF PLAN 3C - FRONT FACING NORTH, SOUTH, EAST AND WEST

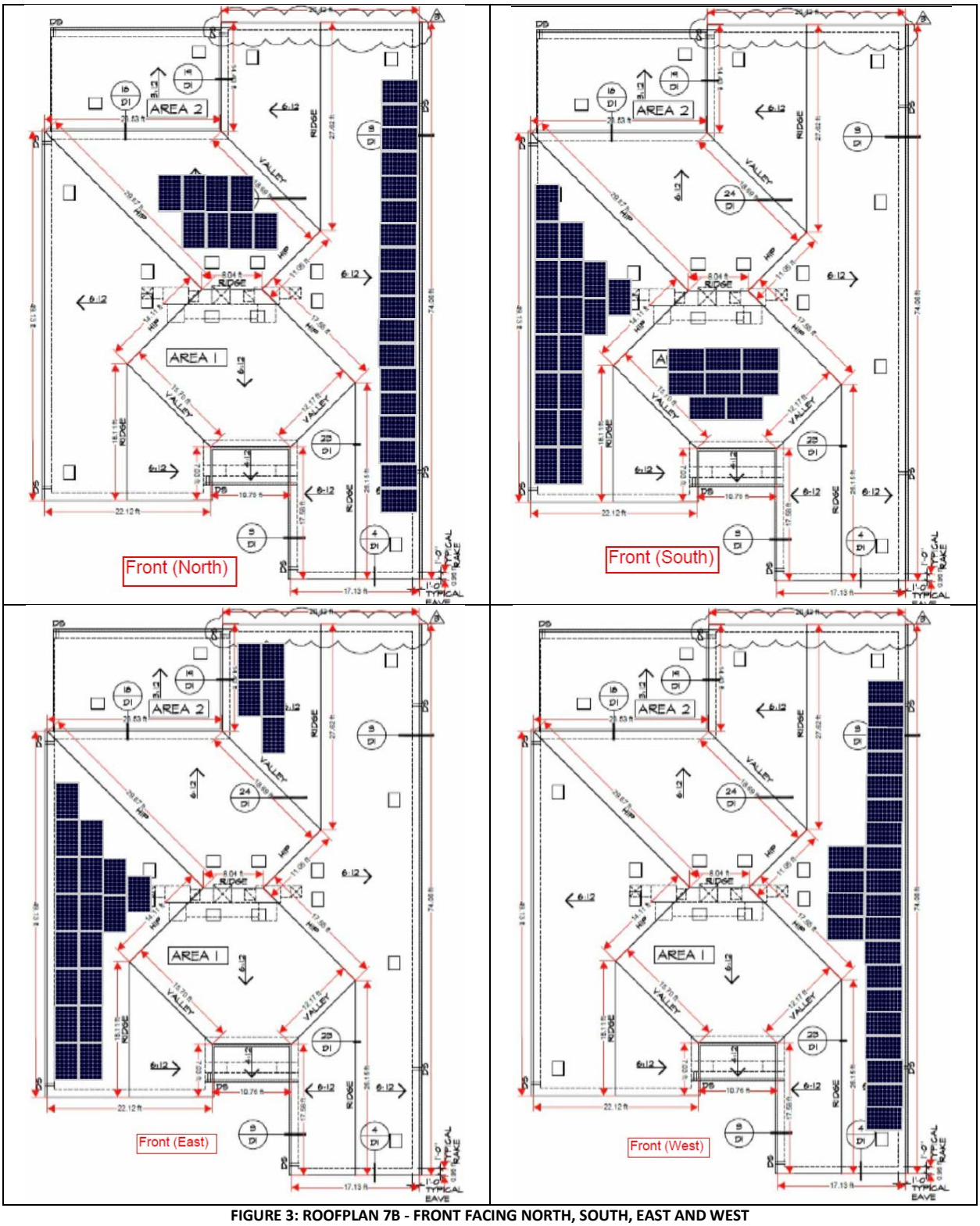


FIGURE 3: ROOFPLAN 7B - FRONT FACING NORTH, SOUTH, EAST AND WEST

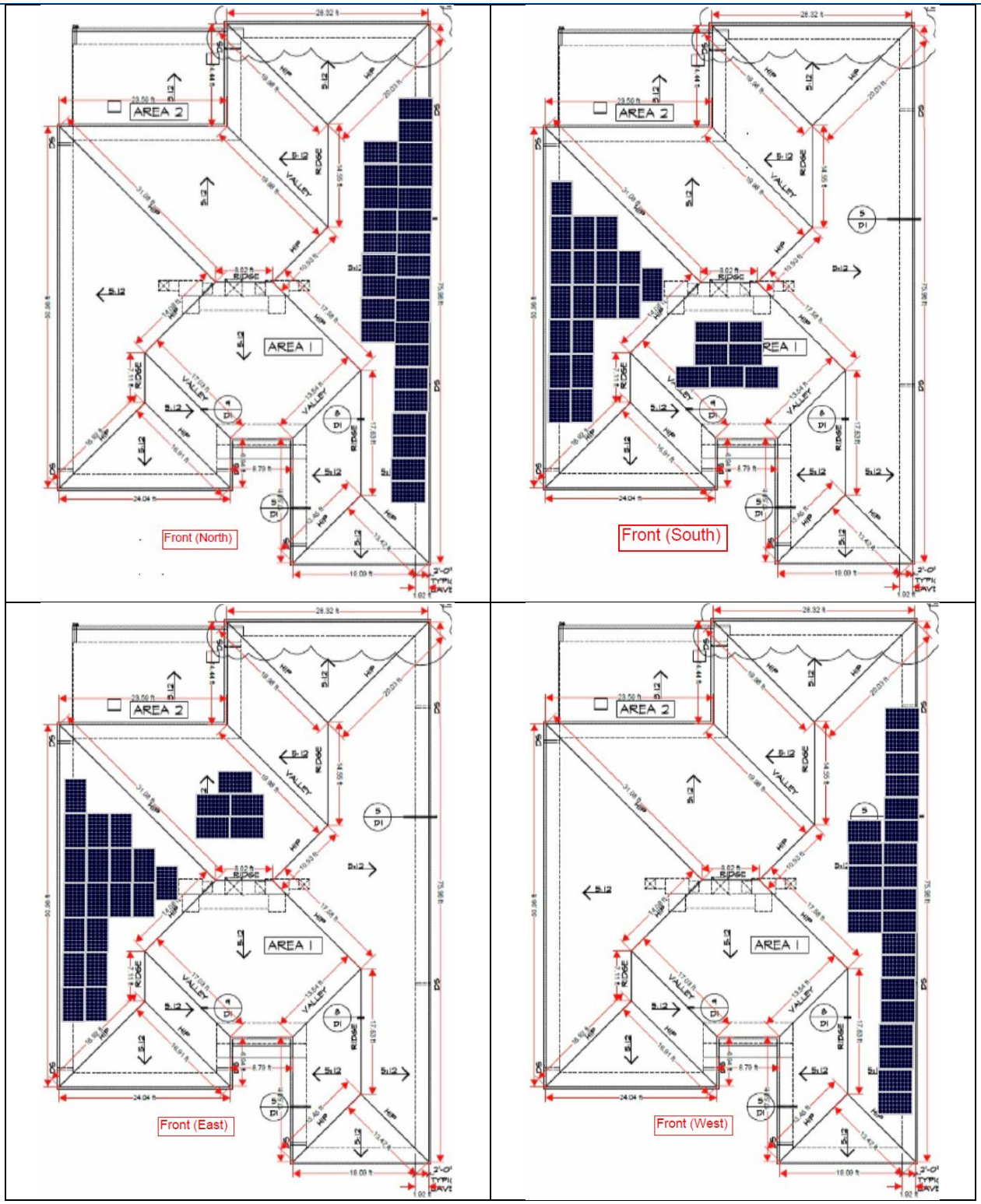


FIGURE 4: ROOF PLAN 7C - FRONT FACING NORTH, SOUTH, EAST AND WEST

Appendix D

Calculation of GHGs from Solid Waste Disposal

Solid Waste Generation and Diversion Rate Calculation

Based on information in the CalRecycle database, current statewide solid waste diversion rates are approximately 63% for residential uses and 65% for non-residential uses (included as Attachment A)[1]. Based on information from the CalRecycle database, for unincorporated San Diego County for the year 2015 (included as Attachment B), single-family dwelling units disposed of a total of 98,338 tons of waste per year, and multi-family dwelling units disposed of a total of 25,509 tons of waste per year. CalRecycle reports a total of 130,333 occupied single-family dwelling units, and 34,495 occupied multi-family dwelling units within unincorporated San Diego County (included as Attachment B).[2] Based on these estimates, the disposal rate for single-family units would be 0.7545 tons per unit per year, and the disposal rate for multi-family units would be 0.7395 tons per unit per year. These disposal rates were used in the CalEEMod model instead of default solid waste disposal rates for the residential portion of the Project.

The CalRecycle database does not provide information on solid waste disposal rates based on non-residential square footage in the same manner that CalEEMod calculates variables. Therefore, the CalEEMod default values were used in this analysis. The diversion rates was assumed to be 65% based on statewide data.

To account for a 75% solid waste diversion rate, which will be achieved within the County by the Project's buildout year of 2030, the solid waste disposal rates and associated GHG emissions were reduced as follows: to reduce non-residential disposal rates from 35% to 25%, the additional diversion rate would be 28.6%. To reduce residential disposal rates from 37% to 25%, the additional diversion rate would be 32.4%.

Tables A and B present a summary of the solid waste disposal rates for the Otay Ranch Resort Village Project and the Optional Development Scenario, respectively, calculated as described above. These solid waste disposal rates were used in the CalEEMod model to calculate GHG emissions.

[1] http://www.calrecycle.ca.gov/lgcentral/GoalMeasure/DisposalRate/Graphs/EstDiversion.htm
[2] https://www2.calrecycle.ca.gov/WasteCharacterization/ResidentialStreams

Table A Solid Waste Disposal Rates Proposed Project	
Land Use	**Waste Generation Rate, total tons**
City Park	1.8207
Condo/Townhouse	28.4944
Elementary School	78.183
Government Office Building	6.64
Hotel	78.183
Single Family Housing	949.389
Strip Mall	29.988

Table B Solid Waste Disposal Rates Optional Development Scenario	
Land Use	**Waste Generation Rate, total tons**
City Park	1.8207
Elementary School	78.183
Government Office Building	6.64
Hotel	78.183
Single Family Housing	988.461
Strip Mall	29.988